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SUBCHAPTER C—AIR PROGRAMS (CONTINUED)

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

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APPENDIX A TO SUBPART DDD OF PART 63—FREE FORMALDEHYDE ANALYSIS OF INSULATION RESINS BY THE HYDROXYLAMINE HYDROCHLORIDE METHOD.

AUTHORITY: 42 U.S.C. 7401 *et seq.*

SOURCE: 57 FR 61992, Dec. 29, 1992, unless otherwise noted.

Subpart AA—National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants

SOURCE: 80 FR 50436, Aug. 19, 2015, unless otherwise noted.

§ 63.600 Applicability.

(a) Except as provided in paragraphs (c) and (d) of this section, you are subject to the requirements of this subpart if you own or operate a phosphoric acid manufacturing plant that is a major source as defined in § 63.2. You must comply with the emission limitations, work practice standards, and operating parameter requirements specified in this subpart at all times.

(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from the following affected sources at a phosphoric acid manufacturing plant:

(1) Each wet-process phosphoric acid process line.

(2) Each evaporative cooling tower.

(3) Each phosphate rock dryer.

(4) Each phosphate rock calciner.

(5) Each superphosphoric acid process line.

(6) Each purified phosphoric acid process line.

(7) Each gypsum dewatering stack.

(8) Each cooling pond.

(c) The requirements of this subpart do not apply to a phosphoric acid manufacturing plant that is an area source as defined in § 63.2.

(d) The provisions of this subpart do not apply to research and development facilities as defined in § 63.601.

§ 63.601 Definitions.

Terms used in this subpart are defined in § 63.2 of the Clean Air Act and in this section as follows:

Active gypsum dewatering stack means a gypsum dewatering stack that is currently receiving gypsum, received gypsum within the last year, or is part of the facility's water management system. A gypsum dewatering stack that is considered closed by a state authority is not considered an active gypsum dewatering stack.

Breakthrough means the point in time when the level of mercury detected at the outlet of an adsorber system is 90 percent of the highest concentration allowed to be discharged consistent with the applicable emission limit.

Cooling pond means a natural or artificial open reservoir that is primarily used to collect and cool water that comes into direct contact with raw materials, intermediate products, byproducts, waste products, or finished products from a phosphoric acid manufacturing plant. The water in the cooling pond is often used at phosphoric acid manufacturing plants as filter wash water, absorber water for air pollution control absorbers, and/or to transport phosphogypsum as slurry to a gypsum dewatering stack(s).

Equivalent P_2O_5 feed means the quantity of phosphorus, expressed as phosphorus pentoxide (P_2O_5), fed to the process.

Evaporative cooling tower means an open-water, re-circulating device that uses fans or natural draft to draw or force ambient air through the device to remove heat from process water by direct contact.

Exceedance means a departure from an indicator range established for monitoring under this subpart, consistent with any averaging period specified for averaging the results of the monitoring.

Existing source depends on the date that construction or reconstruction of an affected source commenced. A wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, phosphate rock calciner, evaporative cooling tower, or purified acid process line is an existing source if construction or reconstruction of the affected source commenced on or before December 27, 1996. A gypsum dewatering stack or cooling pond is an existing source if it meets one of two criteria:

(1) It was constructed or reconstructed on or before August 19, 2015; or

(2) It was constructed or reconstructed after August 19, 2015 and it was not required to obtain a permit by a state authority for the construction or reconstruction.

Gypsum dewatering stack means any defined geographic area associated with a phosphoric acid manufacturing plant in which gypsum is disposed of or stored, other than within a fully enclosed building, container, or tank.

Gypsum dewatering stack system means the gypsum dewatering stack, together with all pumps, piping, ditches, drainage conveyances, water control structures, collection pools, cooling ponds, surge ponds, auxiliary holding ponds, regional holding ponds and any other collection or conveyance system associated with the transport of gypsum from the plant to the gypsum dewatering stack, its management at the gypsum dewatering stack, and the process wastewater return to the phosphoric acid production or other process.

HAP metals mean those metals and their compounds (in particulate or volatile form) that are included on the list of hazardous air pollutants in section 112 of the Clean Air Act. HAP metals include, but are not limited to: Antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium expressed as particulate matter as measured by the methods and procedures in this subpart or an approved alternative method. For the purposes of this subpart, HAP metals (except mercury) are expressed as particulate matter as measured by Method 5 at 40 CFR part 60, appendix A–3.

New source depends on the date that construction or reconstruction of an affected source commences. A wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, phosphate rock calciner, evaporative cooling tower, or

purified acid process line is a new source if construction or reconstruction of the affected source commenced after December 27, 1996. A gypsum dewatering stack or cooling pond is a new source if it meets two criteria:

(1) It was constructed or reconstructed after August 19, 2015; and

(2) It was required to obtain a permit by a state authority for the construction or reconstruction.

Oxidation reactor means any equipment or step that uses an oxidizing agent (*e.g.*, nitric acid, ammonium nitrate, or potassium permanganate) to treat superphosphoric acid.

Phosphate rock calciner means the equipment used to remove moisture and organic matter from phosphate rock through direct or indirect heating.

Phosphate rock dryer means the equipment used to reduce the moisture content of phosphate rock through direct or indirect heating.

Phosphate rock feed means all material entering any phosphate rock dryer or phosphate rock calciner including moisture and extraneous material as well as the following ore materials: Fluorapatite, hydroxylapatite, chlorapatite, and carbonateapatite.

Purified phosphoric acid process line means any process line that uses a HAP as a solvent in the separation of impurities from the product acid for the purposes of rendering that product suitable for industrial, manufacturing, or food grade uses. A purified phosphoric acid process line includes: solvent extraction process equipment, solvent stripping and recovery equipment, seal tanks, carbon treatment equipment, cooling towers, storage tanks, pumps, and process piping.

Raffinate stream means the aqueous stream containing the impurities that are removed during the purification of wet-process phosphoric acid using solvent extraction.

Research and development facility means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other offsite distribution, except in a de minimis manner.

Rim ditch (cell) building technique means a gypsum dewatering stack construction technique that utilizes inner and outer dikes to direct gypsum slurry flow around the perimeter of the stack before directing the flow and allowing settling of finer materials into the settling compartment. For the purpose of this definition, the rim ditch (cell) building technique includes the compartment startup phase when gypsum is deposited directly into the settling compartment in preparation for ditch construction as well as the stepin or terminal phases when most solids must be directed to the settling compartment prior to stack closure. Decant return ditches are not rim ditches.

Shutdown commences when feed materials cease to be added to an affected source and ends when the affected source is deactivated, regardless of whether feed material is present in the affected source.

Startup commences when any feed material is first introduced into an affected source and ends when feed material is fully loaded into the affected source.

Superphosphoric acid process line means any process line that concentrates wet-process phosphoric acid to 66 percent or greater P_2O_5 content by weight. A superphosphoric acid process line includes: evaporators, hot wells, acid sumps, oxidation reactors, and cooling tanks.

Total fluorides means elemental fluorine and all fluoride compounds, including the HAP HF, as measured by reference methods specified in 40 CFR part 60, appendix A, Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to § 63.7(f).

Wet-process phosphoric acid process line means any process line manufacturing phosphoric acid by reacting phosphate rock and acid. A wet-process phosphoric acid process line includes: reactors, filters, evaporators, and hot wells.

§ 63.602 Standards and compliance dates.

(a) On and after the dates specified in paragraphs (a)(1) through (6) of this section, for each wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner, you must comply with the emission limits as specified in paragraphs (a)(1) through (6) of this section. If a process line contains more than one emission point, you must sum the emissions from all emission points in a process line to determine compliance with the specified emission limits.

(1) For each existing wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commenced construction or reconstruction on or before December 27, 1996, you must comply with the emission limits specified in Table 1 to this subpart beginning on June 10, 2002.

(2) For each existing phosphate rock calciner that commenced construction or reconstruction on or before December 27, 1996, you must comply with the emission limits as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) You must comply with the total particulate emission limit specified in Table 1 to this subpart beginning on June 10, 2002.

(ii) You must comply with the mercury emission limit specified in Table 1 to this subpart beginning on November 3, 2020.

(iii) You must comply with the total fluorides emission limit specified in Table 1 to this subpart beginning on August 19, 2015.

(3) For each new wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commences construction or reconstruction after December 27, 1996 and on or before August 19, 2015, you must comply with the emission limits specified in Table 2 to this subpart beginning on June 10, 1999 or at startup, whichever is later.

(4) For each new wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commences construction or reconstruction after August 19, 2015, you must comply with the emission limits specified in Table 2 to this subpart immediately upon startup.

(5) For each new phosphate rock calciner that commences construction or reconstruction after December 27, 1996 and on or before August 19, 2015, you must comply with the emission limits as specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must comply with the total particulate emission limit specified in Table 2 to this subpart beginning on June 10, 1999 or at startup, whichever is later.

(ii) You must comply with the mercury emission limit specified in Table 2 to this subpart beginning on August 19, 2015, or upon startup, whichever is later.

(iii) You must comply with the total fluorides emission limit specified in Table 2 to this subpart beginning on August 19, 2015, or upon startup, whichever is later.

(6) For each new phosphate rock calciner that commences construction or reconstruction after August 19, 2015, you must comply with the emission limits specified in Table 2 to this subpart immediately upon startup.

(b) For each existing purified phosphoric acid process line that commenced construction or reconstruction on or before December 27, 1996, you must comply with the provisions of subpart H of this part and paragraphs (b)(1) through (3) of this section beginning on June 10, 2002. For each new purified phosphoric acid process line that commences construction or reconstruction after December 27, 1996, you must comply with the provisions of subpart H of this part and paragraphs (b)(1) through (3) of this section beginning on June 10, 1999 or at startup, whichever is later.

(1) Maintain a 30-day rolling average of daily concentration measurements of methyl isobutyl ketone equal to or below 20 parts per million by weight (ppmw) for each product acid stream.

(2) Maintain a 30-day rolling average of daily concentration measurements of methyl isobutyl ketone equal to or below 30 ppmw for each raffinate stream.

(3) Maintain the daily average temperature of the exit gas stream from

the chiller stack below 50 degrees Fahrenheit.

(c) Beginning on June 10, 2002, you must not introduce into an existing evaporative cooling tower that commenced construction or reconstruction on or before December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment. Beginning on June 10, 1999 or at startup, whichever is later, you must not introduce into a new evaporative cooling tower that commences construction or reconstruction after December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment.

(d) For each gypsum dewatering stack system, you must prepare, and operate in accordance with, a gypsum dewatering stack and cooling pond management plan that contains the information specified in paragraph (e) of this section beginning on August 19, 2016.

(e) The gypsum dewatering stack and cooling pond management plan must include the information specified in paragraphs (e)(1) through (3) of this section. You must submit the gypsum dewatering stack and cooling pond management plan for approval to the Administrator as specified in paragraph (e)(4) of this section.

(1) Location (including latitude and longitude of centroid in decimal degrees to four decimal places) of each gypsum dewatering stack and each cooling pond in the gypsum dewatering stack system.

(2) Permitted maximum footprint acreage of each gypsum dewatering stack and each cooling pond in the gypsum dewatering stack system.

(3) Control measures that you use to minimize fugitive hydrogen fluoride emissions from the gypsum dewatering stack system. If you operate one or more active gypsum dewatering stacks or cooling ponds that are considered new sources as defined in § 63.601, then you must use, and include in the management plan, at least two of the control measures listed in paragraphs (e)(3)(i) through (vii) of this section for your gypsum dewatering stack system. If you only operate active gypsum dewatering stacks and cooling ponds that are considered existing sources as defined in § 63.601, then you must use, and include in the management plan, at least one of the control measures listed in paragraphs (e)(3)(i) through (vii) of this section for your gypsum dewatering stack system.

(i) For at least one cooling pond that is considered part of your gypsum dewatering stack system, you may choose to submerge the discharge pipe to a level below the surface of the cooling pond.

(ii) For at least one cooling pond that is considered part of your gypsum dewatering stack system, you may choose to use lime (or any other caustic substance) to raise the pH of the liquid (*e.g.*, the condensed vapors from the flash cooler and evaporators, and scrubbing liquid) discharged into the cooling pond. If you choose this control measure, then you must include in the plan the method used to raise the pH of the liquid discharged into the cooling pond, the target pH value (of the liquid discharged into the cooling pond) expected to be achieved by using the method, and the analyses used to determine and support the raise in pH.

(iii) For all cooling ponds that are considered part of your gypsum dewatering stack system, you may choose to reduce the total cooling pond surface area based on a facility specific evaluation plan. If you choose this control measure, then you must include in the facility specific evaluation plan certified by an independent licensed professional engineer or similarly qualified individual. You must also include in the plan the method used to reduce total cooling pond footprint, the analyses used to determine and support the reduction in the total cooling pond surface area, and the amount of total cooling pond surface area that was reduced due to the facility specific evaluation plan.

(iv) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to minimize the surface area of the gypsum pond associated with the active gypsum dewatering stack by using a rim ditch (cell) building technique or other building technique.

(v) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to apply slaked lime to the active gypsum dewatering stack surfaces. If you choose this control measure, then you must include in the plan the method used to determine the specific locations slaked lime is applied. The plan must also include the methods used to determine the quantity of, and when to apply, slaked lime (*e.g.*, slaked lime may be applied to achieve a state ambient air standard for fluorides, measured as hydrogen fluoride).

(vi) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to apply soil caps and vegetation, or a synthetic cover, to a portion of side slopes of the active gypsum dewatering stack. If you choose this control measure, then you must include in the plan the method used to determine the specific locations of soil caps and vegetation, or synthetic cover; and specify the acreage and locations where soil caps and vegetation, or synthetic cover, is applied. The plan must also include a schedule describing when soil caps and vegetation, or synthetic cover, is to be applied.

(vii) For all gypsum dewatering stacks that are considered part of your gypsum dewatering stack system, you may choose to establish closure requirements that at a minimum, contain requirements for the specified items in paragraphs (e)(3)(vii)(A) and (B) of this section.

(A) A specific trigger mechanism for when you must begin the closure process on the gypsum dewatering stack; and

(B) A requirement to install a final cover. For purposes of this paragraph, final cover means the materials used to cover the top and sides of a gypsum dewatering stack upon closure.

(4) You must submit your plan for approval to the Administrator at least 6 months prior to the compliance date specified in §63.602(d), or with the permit application for modification, construction, or reconstruction. The plan must include details on how you will implement and show compliance with the control technique(s) that you have selected to use. The Administrator will approve or disapprove your plan within 90 days after receipt of the plan. To change any of the information submitted in the plan, you must submit a revised plan 60 days before the planned change is to be implemented in order to allow time for review and approval by the Administrator before the change is implemented.

(f) Beginning on August 19, 2015, during periods of startup and shutdown (as defined in §63.601), you must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, you must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

[80 FR 50436, Aug. 19, 2015,, as amended at 85 FR 69512, Nov. 3, 2020]

§§ 63.603–63.604 [Reserved]

§ 63.605 Operating and monitoring requirements.

(a) For each wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart, you must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in §63.608(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.

(2) Maintain a daily record of equivalent P_2O_5 feed. Calculate the equivalent P_2O_5 feed by determining the total mass rate, in metric ton/hour of phosphorus bearing feed, using the monitoring system specified in paragraph (a)(1) of this section and the procedures specified in §63.606(f)(3).

(b) For each phosphate rock dryer or phosphate rock calciner subject to the

provisions of this subpart, you must comply with the monitoring requirements specified in paragraphs (b)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a CMS according to your site-specific monitoring plan specified in § 63.608(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record either:

(i) The mass flow of phosphorus-bearing feed material to the phosphate rock dryer or calciner, or

(ii) The mass flow of product from the phosphate rock dryer or calciner.

(2) Maintain the records specified in paragraphs (b)(2)(i) and (ii) of this section.

(i) If you monitor the mass flow of phosphorus-bearing feed material to the phosphate rock dryer or calciner as specified in paragraph (b)(1)(i) of this section, maintain a daily record of phosphate rock feed by determining the total mass rate in metric tons/hour of phosphorus-bearing feed.

(ii) If you monitor the mass flow of product from the phosphate rock dryer or calciner as specified in paragraph (b)(1)(ii) of this section, maintain a daily record of product by determining the total mass rate in metric ton/hour of product.

(c) For each purified phosphoric acid process line, you must comply with the monitoring requirements specified in paragraphs (c)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a CMS according to your site-specific monitoring plan specified in § 63.608(c). The CMS must continuously measure and permanently record the stack gas exit temperature for each chiller stack.

(2) Measure and record the concentration of methyl isobutyl ketone in each product acid stream and each raffinate stream once each day.

(d) If you use a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, you must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (5) of this section.

(1) You must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable.

(i) Except as specified in paragraph (d)(1)(ii) of this section, determine the value(s) as the arithmetic average of operating parameter measurements recorded during the three test runs conducted for the most recent performance test.

(ii) If you use an absorber or a wet electrostatic precipitator to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber or secondary voltage for a wet electrostatic precipitator, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.

(A) The allowable range for the daily averages of the pressure drop across an absorber and of the flow rate of the absorber liquid to each absorber in the process absorbing system, or secondary voltage for a wet electrostatic precipitator, is ±20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(B) As an alternative to paragraph (d)(1)(ii)(A) of this section, you may establish allowable ranges for the daily averages of the pressure drop across an absorber, or secondary voltage for an electrostatic precipitator, for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. You must establish the allowable ranges based on the baseline average values recorded during previous performance tests, or the results of performance tests conducted specifically for the purposes of this paragraph. You must conduct all performance tests using the methods specified in § 63.606. You must certify that the control devices and processes have

not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

(2) You must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart.

(3) You must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart.

(4) If you use a non-regenerative adsorption system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart, you must comply with the requirements specified in paragraph (e) of this section.

(5) If you use a sorbent injection system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart and you use a fabric filter to collect the associated particulate matter, the system must meet the requirements for fabric filters specified in paragraph (f) of this section.

(e) If you use a non-regenerative adsorption system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart, you must comply with the requirements specified in paragraphs (e)(1) through (3) of this section.

(1) Determine the adsorber bed life (*i.e.*, the expected life of the sorbent in the adsorption system) using the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) If the adsorber bed is expected (designed) to have a life of less than 2 years, determine the outlet concentration of mercury on a quarterly basis until breakthrough occurs for the first three adsorber bed change-outs. The adsorber bed life shall equal the average length of time between each of the three change-outs.

(ii) If the adsorber bed is expected (designed) to have a life of 2 years or greater, determine the outlet concentration of mercury on a semi-annual basis until breakthrough occurs for the first two adsorber bed change-outs. The adsorber bed life must equal the average length of time between each of the two change-outs.

(iii) If more than one adsorber is operated in parallel, or there are several identical operating lines controlled by adsorbers, you may determine the adsorber bed life by measuring the outlet concentration of mercury from one of the adsorbers or adsorber systems rather than determining the bed life for each adsorber.

(iv) The adsorber or adsorber system you select for the adsorber bed life test must have the highest expected inlet gas mercury concentration and the highest operating rate of any adsorber in operation at the affected source. During the test to determine adsorber bed life, you must use the fuel that contains the highest level of mercury in any fuel-burning unit associated with the adsorption system being tested.

(2) You must replace the sorbent in each adsorber on or before the end of the adsorbent bed life, calculated in paragraph (e)(1) of this section.

(3) You must re-establish the adsorber bed life if the sorbent is replaced with a different brand or type, or if any process changes are made that would lead to a shorter bed lifetime.

(f) Beginning August 19, 2016, if you use a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, then the fabric filter must be equipped with a bag leak detection system that is installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (f)(1) through (10) of this section.

(1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (*e.g.*, for a positive-pressure fabric filter) of the fabric filter.

(2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic feet) or less.

(3) Use a bag leak detection system equipped with a device to continuously record the output signal from the system sensor.

(4) Use a bag leak detection system equipped with a system that will trigger an alarm when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located such that the alert is observed readily by plant operating personnel.

(5) Install a bag leak detection system in each compartment or cell for positive-pressure fabric filter systems that do not duct all compartments or cells to a common stack. Install a bag leak detector downstream of the fabric filter if a negative-pressure or induced-air filter system is used. If multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(6) Calibration of the bag leak detection system must, at a minimum, consist of establishing the baseline output level by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(7) After initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as established in your site-specific monitoring plan required in § 63.608(c). In no event may the sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete inspection of the fabric filter system that demonstrates that the system is in good operating condition.

(8) Operate and maintain each fabric filter and bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. If the alarm sounds more than 5 percent of the operating time during a 6-month period, it is considered an operating parameter exceedance. Calculate the alarm time (*i.e.,* time that the alarm sounds) as specified in paragraphs (f)(8)(i) through (iii) of this section.

(i) If inspection of the fabric filter demonstrates that corrective action is not required, the alarm duration is not counted in the alarm time calculation.

(ii) If corrective action is required, each alarm time is counted as a minimum of 1 hour.

(iii) If it takes longer than 1 hour to initiate corrective action, each alarm time is counted as the actual amount of time taken to initiate corrective action.

(9) If the alarm on a bag leak detection system is triggered, you must initiate procedures within 1 hour of an alarm to identify the cause of the alarm and then initiate corrective action, as specified in § 63.608(d)(2), no later than 48 hours after an alarm. Failure to take these actions within the prescribed time periods is considered a violation.

(10) Retain records of any bag leak detection system alarm, including the date, time, duration, and the percent of the total operating time during each 6-month period that the alarm sounds, with a brief explanation of the cause of the alarm, the corrective action taken, and the schedule and duration of the corrective action.

(g) If you choose to directly monitor mercury emissions instead of using CPMS as specified in paragraph (d) of this section, then you must install and operate a mercury CEMS in accordance with Performance Specification 12A of appendix B to part 60 of this chapter, or a sorbent trap-based integrated monitoring system in accordance with Performance Specification 12B of appendix B to part 60 of this chapter. You must continuously monitor mercury emissions as specified in paragraphs (g)(1) through (4) of this section.

(1) The span value for any mercury CEMS must include the intended upper limit of the mercury concentration measurement range during normal operation, which may be exceeded during other short-term conditions lasting less than 24 consecutive operating hours. However, the span should be at least equivalent to approximately two times the emissions standard. You may round the span value to the nearest multiple of 10 micrograms per cubic meter of total mercury.

(2) You must operate and maintain each mercury CEMS or sorbent trap-based integrated monitoring system

according to the quality assurance requirements specified in Procedure 5 of appendix F to part 60 of this chapter.

(3) You must conduct relative accuracy testing of mercury monitoring systems, as specified in Performance Specification 12A, Performance Specification 12B, or Procedure 5 of appendix B to part 60 of this chapter, at normal operating conditions.

(4) If you use a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to your site-specific monitoring plan specified in § 63.608(c).

[80 FR 50436, Aug. 19, 2015, as amended at 82 FR 45199, Sept. 28, 2017]

§ 63.606 Performance tests and compliance provisions.

(a) You must conduct an initial performance test to demonstrate compliance with the applicable emission limits specified in Tables 1 and 2 to this subpart, within 180 days of the applicable compliance date specified in § 63.602.

(b) After you conduct the initial performance test specified in paragraph (a) of this section, you must conduct a performance test once per calendar year.

(c) For affected sources (as defined in § 63.600) that have not operated since the previous annual performance test was conducted and more than 1 year has passed since the previous performance test, you must conduct a performance test no later than 180 days after the re-start of the affected source according to the applicable provisions in § 63.7(a)(2).

(d)(1) You must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:

(i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and

(ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test.

(2) You must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(e) In conducting all performance tests, you must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).

(f) You must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

(1) Compute the emission rate (E) of total fluorides for each run using Equation AA–1:

$$E = \left(\sum_{i=1}^{N} C_i Q_i \right) / (PK) \qquad \text{(Eq. AA-1)}$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P_2O_5 feed.

C_i = Concentration of total fluorides from emission point ''i,'' milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point "i," dry standard cubic meter/hour (dry standard cubic feet/hour).
N = Number of emission points associated with the affected facility.
P = Equivalent P_2O_5 feed rate, metric ton/hour (ton/hour).
K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

(2) You must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.

(3) Compute the equivalent P_2O_5 feed rate (P) using Equation AA–2:

$$P = M_p R_p \qquad \text{(Eq. AA-2)}$$

Where:

P = P_2O_5 feed rate, metric ton/hr (ton/hour).
M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).
R_p = P_2O_5 content, decimal fraction.

(i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in § 63.605(a).

(ii) Determine the P_2O_5 content (R_p) of the feed using, as appropriate, the following methods specified in Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see § 63.14) where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method A—Volumetric Method.

(C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B—Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method C—Spectrophotometric Method.

(E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A—Volumetric Method.

(F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B—Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C—Spectrophotometric Method.

(g) You must demonstrate compliance with the applicable particulate matter standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (g)(1) through (3) of this section.

(1) Compute the emission rate (E) of particulate matter for each run using Equation AA–3:

$$E = (C\ Q)/(P\ K) \qquad \text{(Eq. AA-3)}$$

Where:

E = Emission rate of particulate matter, kilogram/megagram (pound/ton) of phosphate rock feed.
C = Concentration of particulate matter, gram/dry standard cubic meter (gram/dry standard cubic feet).

Q = Volumetric flow rate of effluent gas, dry standard cubic meter/hour (dry standard cubic feet/hour).
P = Phosphate rock feed rate, megagram/hour (ton/hour).
K = Conversion factor, 1000 grams/kilogram (453.6 grams/pound).

(2) Use Method 5 at 40 CFR part 60, appendix A–3 to determine the particulate matter concentration (C) and volumetric flow rate (Q) of the effluent gas. Except as specified in paragraph (h) of this section, the sampling time and sample volume for each run must be at least 60 minutes and 0.85 dry standard cubic meter (30 dry standard cubic feet).

(3) Use the CMS described in §63.605(b) to determine the phosphate rock feed rate (P) for each run.

(h) To demonstrate compliance with the particulate matter standards for phosphate rock calciners specified in Tables 1 and 2 to this subpart, you must use Method 5 at 40 CFR part 60, appendix A–3 to determine the particulate matter concentration. The sampling volume for each test run must be at least 1.70 dry standard cubic meter.

(i) To demonstrate compliance with the mercury emission standards for phosphate rock calciners specified in Tables 1 and 2 to this subpart, you must use Method 30B at 40 CFR part 60, appendix A–8 to determine the mercury concentration, unless you use a CEMS to demonstrate compliance. If you use a non-regenerative adsorber to control mercury emissions, you must use this test method to determine the expected bed life as specified in §63.605(e)(1).

(j) If you choose to monitor the mass flow of product from the phosphate rock dryer or calciner as specified in §63.605(b)(1)(ii), you must either:

(1) Simultaneously monitor the feed rate and output rate of the phosphate rock dryer or calciner during the performance test, or

(2) Monitor the output rate and the input and output moisture contents of the phosphate rock dryer or calciner during the performance test and calculate the corresponding phosphate rock dryer or calciner input rate.

(k) For sorbent injection systems, you must conduct the performance test at the outlet of the fabric filter used for sorbent collection. You must monitor and record operating parameter values for the fabric filter during the performance test. If the sorbent is replaced with a different brand or type of sorbent than was used during the performance test, you must conduct a new performance test.

(l) If you use a mercury CEMS as specified in §63.605(g), or paragraph (i) of this section, you must demonstrate initial compliance based on the first 30 operating days during which you operate the affected source using a CEMS. You must obtain hourly mercury concentration and stack gas volumetric flow rate data.

(m) If you use a CMS, you must conduct a performance evaluation, as specified in §63.8(e), in accordance with your site-specific monitoring plan in §63.608(c). For fabric filters, you must conduct a performance evaluation of the bag leak detection system consistent with the guidance provided in Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14). You must record the sensitivity of the bag leak detection system to detecting changes in particulate matter emissions, range, averaging period, and alarm set points during the performance test.

§63.607 Notification, recordkeeping, and reporting requirements.

(a) You must comply with the notification requirements specified in §63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, §63.7(g)(1), or §63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines

that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

(b) You must comply with the reporting and recordkeeping requirements in § 63.10 as specified in paragraphs (b)(1) through (5) of this section.

(1) You must comply with the general recordkeeping requirements in § 63.10(b)(1).

(2) As required by § 63.10(d), you must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in § 63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to § 63.605, as applicable. In the notification of compliance status, you must also:

(i) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in § 63.602(c).

(ii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see § 63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.

(iii) Submit the gypsum dewatering stack and cooling pond management plan specified in § 63.602(e).

(iv) If you elect to demonstrate compliance by following the procedures in § 63.605(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.

(v) Each time a gypsum dewatering stack is closed, certify to the Administrator within 90 days of closure, that the final cover of the closed gypsum dewatering stack is a drought resistant vegetative cover that includes a barrier soil layer that will sustain vegetation.

(3) As required by § 63.10(e)(3), you must submit an excess emissions report for any exceedance of an emission limit, work practice standard, or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in § 63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. You must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If you report exceedances, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in § 63.10(e)(3)(ii).

(4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:

(i) The date, time and duration of the failure.

(ii) A list of the affected sources or equipment for which a failure occurred.

(iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.

(iv) A description of the method used to estimate the emissions.

(v) A record of actions taken to minimize emissions in accordance with § 63.608(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(5) You must submit a summary report containing the information specified in § 63.10(e)(3)(vi). You must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

(c) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provides access at the site, for at least 2 years

after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(d) In computing averages to determine compliance with this subpart, you must exclude the monitoring data specified in paragraphs (d)(1) and (2) of this section.

(1) Periods of non-operation of the process unit;

(2) Periods of no flow to a control device; and any monitoring data recorded during CEMS or continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

(e) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*http://cdx.epa.gov/epa_home.asp*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(f) Within 60 days after the date of completing each continuous emissions monitoring system performance evaluation (as defined in §63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (f)(1) or (2) of this section.

(1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance evaluation data in an electronic file format consistent with the XML schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703.

The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.

§ 63.608 General requirements and applicability of general provisions of this part.

(a) You must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

(b) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(c) For each CMS (including CEMS or CPMS) used to demonstrate compliance with any applicable emission limit or work practice, you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. You must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under § 63.8(f).

(1) You must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.

(i) Location of the CMS sampling probe or other interface. You must include a justification demonstrating that the sampling probe or other interface is 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).

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

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

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.

(v) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d)(1) and (2) and Table 5 to this subpart.

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

(2) You must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.

(3) You must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (*i.e.*, superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under § 63.8(d)(2) in the plan.

(d) For each bag leak detection system installed to comply with the requirements specified in § 63.605(f), you must include the information specified

in paragraphs (d)(1) and (2) of this section in the site-specific monitoring plan specified in paragraph (c) of this section.

(1) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations), including how the alarm set point will be established.

(2) A corrective action plan describing corrective actions to be taken and the timing of those actions when the bag leak detection alarm sounds. Corrective actions may include, but are not limited to, the actions specified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in regulated material emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Shutting down the process controlled by the fabric filter.

(e) If you use blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section calculations showing how you determined the maximum possible gas flow rate through the absorber based on the blower's specifications (including any adjustments you made for pressure drop).

(f) If you use a regression model to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section the calculations that were used to develop the regression model, including the calculations you use to convert amperage of the blower to brake horsepower. You must describe any constants included in the equations (e.g., efficiency, power factor), and describe how these constants were determined. If you want to change a constant in your calculation, then you must conduct a regression model verification to confirm the new value of the constant. In addition, the site-specific monitoring plan must be updated annually to reflect the data used in the annual regression model verification that is described in Table 3 to this subpart.

[80 FR 50436, Aug. 19, 2015, as amended at 82 FR 45199, Sept. 28, 2017]

§ 63.609 [Reserved]

§ 63.610 Exemption from new source performance standards.

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart T, subpart U, or subpart NN. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is upon the date that you demonstrate to the Administrator that the requirements of §§ 63.605 and 63.606 have been met.

§ 63.611 Implementation and enforcement.

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

(b) The authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

(1) Approval of alternatives to the requirements in §§ 63.600, 63.602, 63.605, and 63.610.

(2) Approval of requests under §§ 63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in § 63.90.

(3) Approval of requests under § 63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in § 63.90.

(4) Waiver or approval of requests under § 63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in § 63.90.

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

TABLE 1 TO SUBPART AA OF PART 63—EXISTING SOURCE EMISSION LIMITS [A] [B]

For the following existing sources . . .	You must meet the emission limits for the specified pollutant . . .		
	Total fluorides	Total particulate	Mercury
Wet-Process Phosphoric Acid Line	0.020 lb/ton of equivalent P_2O_5 feed.		
Superphosphoric Acid Process Line [c].	0.010 lb/ton of equivalent P_2O_5 feed.		
Superphosphoric Acid Process Line with a Submerged Combustion Process.	0.20 lb/ton of equivalent P_2O_5 feed.		
Phosphate Rock Dryer	.....	0.2150 lb/ton of phosphate rock feed.	
Phosphate Rock Calciner	9.0E–04 lb/ton of rock feed [d]	0.181 g/dscm	0.23 mg/dscm corrected to 3-percent oxygen [e]

[a] The existing source compliance data is June 10, 2002, except as noted.
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.602(f).
[c] Beginning on August 19, 2018, you must include oxidation reactors in superphosphoric acid process lines when determining compliance with the total fluorides limit.
[d] Compliance date is August 19, 2015.
[e] Compliance date November 3, 2020.

[85 FR 69512, Nov. 3, 2020]

TABLE 2 TO SUBPART AA OF PART 63—NEW SOURCE EMISSION LIMITS [A] [B]

For the following new sources . . .	You must meet the emissions limits for the specified pollutant . . .		
	Total fluorides	Total particulate	Mercury
Wet-Process Phosphoric Acid Line.	0.0135 lb/ton of equivalent P_2O_5 feed.		
Superphosphoric Acid Process Line [c].	0.00870 lb/ton of equivalent P_2O_5 feed.		
Phosphate Rock Dryer	.....	0.060 lb/ton of phosphate rock feed.	
Phosphate Rock Calciner	9.0E–04 lb/ton of rock feed	0.092 g/dscm	0.014 mg/dscm corrected to 3 percent oxygen

[a] The new source compliance dates are based on date of construction or reconstruction as specified in § 63.602(a).
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.602(f).
[c] Beginning on August 19, 2018, you must include oxidation reactors in superphosphoric acid process lines when determining compliance with the total fluorides limit.

[80 FR 50436, Aug. 19, 2015, as amended at 82 FR 45199, Sept. 28, 2017]

TABLE 3 TO SUBPART AA OF PART 63—MONITORING EQUIPMENT OPERATING PARAMETERS

You must . . .	If . . .	And you must monitor . . .[a]	And . . .[a]
Absorbers (Wet Scrubbers)			
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio.	Influent liquid flow.	
Install CPMS for liquid and gas flow at the inlet of the absorber[b].	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or.	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the gas flow rate through the absorber. The units of measure must be consistent with those used to calculate this ratio during the performance test.	You must determine the gas flow rate through the absorber by: Measuring the gas flow rate at the absorber inlet or outlet; Using the blower design capacity, with appropriate adjustments for pressure drop;[c] or Using a regression model.[d]
	Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow.		
Install CPMS for pressure at the gas stream inlet and outlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more.	Pressure drop through the absorber.	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established
Sorbent Injection			
Install a CPMS for flow rate.	.....	Sorbent injection rate.	
Install a CPMS for flow rate.	.....	Sorbent injection carrier gas flow rate.	
Wet Electrostatic Precipitators			
Install secondary voltage meter.	You control mercury or metal HAP (particulate matter) using an electrostatic precipitator.	Secondary voltage.	

[a] To monitor an operating parameter that is not specified in this table (including process-specific techniques not specified in this table to determine gas flow rate through an absorber), you must request, on a site-specific basis, an alternative monitoring method under the provisions of 40 CFR 63.8(f).

[b] For new sources that commence construction or reconstruction after August 19, 2015, the compliance date is immediately upon startup. For existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, if your absorber is designed and operated with pressure drops of 5 inches of water column or less, then the compliance date is August 19, 2018. In the interim, for existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, with an absorber designed and operated with pressure drops of 5 inches of water column or less, you must comply with one of the following: (i) The monitoring requirements in this Table 3 for absorbers designed and operated with pressure drops of 5 inches of water column or less; (ii) the applicable monitoring provisions included in a permit issued under 40 CFR part 70 to assure compliance with subpart AA; (iii) the applicable monitoring provisions of an Alternative Monitoring Plan approved pursuant to §63.8(f); or (iv) install CPMS for pressure at the gas stream inlet and outlet of the absorber, and monitor pressure drop through the absorber.

[c] If you select this option, then you must comply with §63.608(e). The option to use blower design capacity is intended to establish the maximum possible gas flow through the absorber; and is available regardless of the location of the blower (influent or effluent), as long as the gas flow rate through the absorber can be established. Establish the minimum liquid-to-gas ratio operating limit by dividing the minimum liquid flow rate to the absorber (determined during a performance test) by the maximum possible gas flow rate through the absorber (determined using blower design capacity).

[d] If you select this option, then you must comply with §63.608(f). The regression model must be developed using direct measurements of gas flow rate, and design fan curves that correlate gas flow rate to static pressure (*i.e.,* fan suction pressure) and brake horsepower of the blower. You must conduct an annual regression model verification using direct measurements of gas flow rate to ensure the correlation remains accurate. Direct measurements of gas flow rate used to develop or verify regression models may be collected during, or separately from, the annual performance testing that is required in §63.606(b).

[80 FR 50436, Aug. 19, 2015, as amended at 82 FR 45199, Sept. 28, 2017]

TABLE 4 TO SUBPART AA OF PART 63—OPERATING PARAMETERS, OPERATING LIMITS AND DATA MONITORING, RECORDKEEPING AND COMPLIANCE FREQUENCIES

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes.	Daily.
Influent liquid flow rate and gas stream flow rate.	Minimum influent liquid-to-gas ratio [a].	Continuous	Every 15 minutes.	Daily.
Pressure drop	Pressure drop range	Continuous	Every 15 minutes.	Daily.
Sorbent Injection				
Sorbent injection rate	Minimum injection rate	Continuous	Every 15 minutes.	Daily.
Sorbent injection carrier gas flow rate.	Minimum carrier gas flow rate.	Continuous	Every 15 minutes.	Daily.
Fabric Filters				
Alarm time	Maximum alarm time is not established on a site-specific basis but is specified in § 63.605(f)(9).	Continuous	Each date and time of alarm start and stop.	Maximum alarm time specified in § 63.605(f)(9).
Wet Electrostatic Precipitator				
Secondary voltage	Secondary voltage range	Continuous	Every 15 minutes.	Daily.

[a] If you select the regression model option to monitor influent liquid-to-gas ratio as described in Table 3 to this subpart, then you must also continuously monitor (*i.e.,* record every 15 minutes, and use a daily averaging period) blower amperage, blower static pressure (*i.e.,* fan suction pressure), and any other parameters used in the regression model that are not constants.

TABLE 5 TO SUBPART AA OF PART 63—CALIBRATION AND QUALITY CONTROL REQUIREMENTS FOR CONTINUOUS PARAMETER MONITORING SYSTEM (CPMS)

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Temperature	±1 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for non-cryogenic temperature ranges. ±2.5 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for cryogenic temperature ranges.	Performance evaluation annually and following any period of more than 24 hours throughout which the temperature exceeded the maximum rated temperature of the sensor, or the data recorder was off scale. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant temperature sensor. Selection of a representative measurement location.

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Flow Rate	±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate. ±5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate. ±5 percent over the normal range measured for mass flow rate.	Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor. Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.
Pressure	±5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.	Checks for obstructions (*e.g.,* pressure tap pluggage) at least once each process operating day. Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor. Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.
Sorbent Injection Rate	±5 percent over the normal range measured.	Performance evaluation annually. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant sensor. Select a representative measurement location that provides measurement of total sorbent injection.
Secondary voltage	±1kV	

[80 FR 50436, Aug. 19, 2015, as amended at 82 FR 45200, Sept. 28, 2017]

Appendix A to Subpart AA of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart AA

40 CFR citation	Requirement	Applies to subpart AA	Comment
§63.1(a)(1) through (4)	General Applicability	Yes	None.
§63.1(a)(5)		No	[Reserved].
§63.1(a)(6)	Contact information	Yes	None.
§63.1(a)(7)–(9)		No	[Reserved].
§63.1(a)(10) through (12)	Time periods	Yes	None.
§63.1(b)	Initial Applicability Determination	Yes	None.
§63.1(c)(1)	Applicability After Standard Established.	Yes	None.
§63.1(c)(2)	Permits	Yes	Some plants may be area sources.
§63.1(c)(3)–(4)		No	[Reserved].
§63.1(c)(5)	Area to Major source change	Yes	None.
§63.1(c)(6)		Yes	None.
§63.1(d)		No	[Reserved].
§63.1(e)	Applicability of Permit Program	Yes	None.
§63.2	Definitions	Yes	Additional definitions in §63.601.
§63.3	Units and Abbreviations	Yes	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§63.4(a)(1) and (2)	Prohibited Activities	Yes	None.
§63.4(a)(3) through (5)		No	[Reserved].
§63.4(b) and (c)	Circumvention/Fragmentation	Yes	None.
§63.5(a)	Construction/Reconstruction Applicability.	Yes	None.
§63.5(b)(1)	Existing, New, Reconstructed Sources Requirements.	Yes	None.
§63.5(b)(2)		No	[Reserved].
§63.5(b)(3), (4), and (6)	Construction/Reconstruction approval and notification.	Yes	None.
§63.5(b)(5)		No	[Reserved].
§63.5(c)		No	[Reserved].
§63.5(d)	Application for Approval of Construction/Reconstruction.	Yes	None.
§63.5(e)	Approval of Construction/Reconstruction.	Yes	None.
§63.5(f)	Approval of Construction/Reconstruction Based on State Review.	Yes	None.
§63.6(a)	Compliance with Standards and Maintenance Applicability.	Yes	None.
§63.6(b)(1) through (5)	New and Reconstructed Sources Dates.	Yes	See also §63.602.
§63.6(b)(6)		No	[Reserved].
§63.6(b)(7)	Area to major source change	Yes	None.
§63.6(c)(1)and (2)	Existing Sources Dates	Yes	§63.602 specifies dates.
§63.6(c)(3) and (4)		No	[Reserved].
§63.6(c)(5)	Area to major source change	Yes	None.
§63.6(d)		No	[Reserved].
§63.6(e)(1)(i) and (ii)	Operation & Maintenance Requirements.	No	See §63.608(b) for general duty requirement.
§63.6(e)(iii)		Yes	None.
§63.6(e)(2)		No	[Reserved].
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan.	No	None.
§63.6(f)	Compliance with Emission Standards.	No	See general duty at §63.608(b).
§63.6(g)	Alternative Standard	Yes	None.
§63.6(h)	Compliance with Opacity/VE Standards.	No	Subpart AA does not include VE/opacity standards.
§63.6(i)(1) through (14)	Extension of Compliance	Yes	None.
§63.6(i)(15)		No	[Reserved].
§63.6(i)(16)		Yes	None.
§63.6(j)	Exemption from Compliance	Yes	None.
§63.7(a)	Performance Test Requirements Applicability.	Yes	None.
§63.7(b)	Notification	Yes	None.
§63.7(c)	Quality Assurance/Test Plan	Yes	None.
§63.7(d)	Testing Facilities	Yes	None.
§63.7(e)(1)	Conduct of Tests; startup, shutdown, and malfunction provisions.	No	§63.606 specifies additional requirements.
§63.7(e)(2) through (4)	Conduct of Tests	Yes	§63.606 specifies additional requirements.
§63.7(f)	Alternative Test Method	Yes	None.
§63.7(g)	Data Analysis	Yes	None.
§63.7(h)	Waiver of Tests	Yes	None.
§63.8(a)	Monitoring Requirements Applicability.	Yes	None.
§63.8(b)	Conduct of Monitoring	Yes	None.
§63.8(c)(1)(i)	General duty to minimize emissions and CMS operation.	No	See 63.608(b) for general duty requirement.
§63.8(c)(1)(ii)		Yes	None.
§63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS.	No	None.
§63.8(c)(2) through (4)	CMS Operation/Maintenance	Yes	None.
§63.8(c)(5)	COMS Operation	No	Subpart AA does not require COMS.
§63.8(c)(6) through (8)	CMS requirements	Yes	None.
§63.8(d)(1) and (2)	Quality Control	Yes	None.
§63.8(d)(3)	Written procedure for CMS	No	See §63.608 for requirement.
§63.8(e)	CMS Performance Evaluation	Yes	None.
§63.8(f)(1) through (5)	Alternative Monitoring Method	Yes	None.
§63.8(f)(6)	Alternative to RATA Test	Yes	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§63.8(g)(1)	Data Reduction	Yes	None.
§63.8(g)(2)		Yes	None.
§63.8(g)(3) through (5)		Yes	None.
§63.9(a)	Notification Requirements Applicability.	Yes	None.
§63.9(b)	Initial Notifications	Yes	None.
§63.9(c)	Request for Compliance Extension.	Yes	None.
§63.9(d)	New Source Notification for Special Compliance Requirements.	Yes	None.
§63.9(e)	Notification of Performance Test	Yes	None.
§63.9(f)	Notification of VE/Opacity Test	No	Subpart AA does not include VE/opacity standards.
§63.9(g)	Additional CMS Notifications	Yes	Subpart AA does not require CMS performance evaluation, COMS, or CEMS.
§63.9(h)(1) through (3)	Notification of Compliance Status.	Yes	None.
§63.9(h)(4)		No	[Reserved].
§63.9(h)(5) and (6)		Yes	None.
§63.9(i)	Adjustment of Deadlines	Yes	None.
§63.9(j)	Change in Previous Information	Yes	None.
§63.9(k)		Yes	Only as specified in §63.9(j).
§63.10(a)	Recordkeeping/Reporting-Applicability.	Yes	None.
§63.10(b)(1)	General Recordkeeping Requirements.	Yes	None.
§63.10(b)(2)(i)	Startup or shutdown duration	No	None.
§63.10(b)(2)(ii)	Malfunction	No	See §63.607 for recordkeeping and reporting requirement.
§63.10(b)(2)(iii)	Maintenance records	Yes	None.
§63.10(b)(2)(iv) and (v)	Startup, shutdown, malfunction actions.	No	None.
§63.10(b)(2)(vi) through (xiv)	General Recordkeeping Requirements.	Yes	None.
§63.10(b)(3)	General Recordkeeping Requirements.	Yes	None.
§63.10(c)(1)	Additional CMS Recordkeeping	Yes	None.
§63.10(c)(2) through (4)		No	[Reserved].
§63.10(c)(5)		Yes	None.
§63.10(c)(6)		Yes	None.
§63.10(c)(7) and (8)		Yes	None.
§63.10(c)(9)		No	[Reserved].
§63.10(c)(10) through (13)		Yes	None.
§63.10(c)(14)		Yes	None.
§63.10(c)(15)	Startup Shutdown Malfunction Plan Provisions.	No	None.
§63.10(d)(1)	General Reporting Requirements.	Yes	None.
§63.10(d)(2)	Performance Test Results	Yes	None.
§63.10(d)(3)	Opacity or VE Observations	No	Subpart AA does not include VE/opacity standards.
§63.10(d)(4)	Progress Reports	Yes	None.
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	No	See §63.607 for reporting of excess emissions.
§63.10(e)(1) and (2)	Additional CMS Reports	Yes	None.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports.	Yes	None.
§63.10(e)(4)	COMS Data Reports	No	Subpart AA does not require COMS.
§63.10(f)	Recordkeeping/Reporting Waiver.	Yes	None.
§63.11	Control Device and Work Practice Requirements.	Yes	None.
§63.12	State Authority and Delegations	Yes	None.
§63.13	Addresses	Yes	None.
§63.14	Incorporation by Reference	Yes	None.
§63.15	Information Availability/Confidentiality.	Yes	None.
§63.16	Performance Track Provisions	No	Terminated.

[80 FR 50436, Aug. 19, 2015, as amended at 85 FR 73892, Nov. 19, 2020]

Subpart BB—National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants

SOURCE: 80 FR 50450, Aug. 19, 2015, unless otherwise noted.

§ 63.620 Applicability.

(a) Except as provided in paragraphs (c) and (d) of this section, you are subject to the requirements of this subpart if you own or operate a phosphate fertilizer production plant that is a major source as defined in §63.2. You must comply with the emission limitations, work practice standards, and operating parameter requirements specified in this subpart at all times.

(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from the following affected sources at a phosphate fertilizer production plant:

(1) Each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line).

(2) Each granular triple superphosphate process line.

(3) Each granular triple superphosphate storage building.

(4) Evaporative cooling tower.

(c) The requirements of this subpart do not apply to a phosphate fertilizer production plant that is an area source as defined in §63.2.

(d) The provisions of this subpart do not apply to research and development facilities as defined in §63.621.

§ 63.621 Definitions.

Terms used in this subpart are defined in §63.2 of the Clean Air Act and in this section as follows:

Diammonium and/or monoammonium phosphate process line means any process line manufacturing granular diammonium and/or monoammonium phosphate by reacting ammonia with phosphoric acid that has been derived from or manufactured by reacting phosphate rock and acid. A diammonium and/or monoammonium phosphate process line includes: Reactors, granulators, dryers, coolers, screens, and mills.

Equivalent P_2O_5 feed means the quantity of phosphorus, expressed as phosphorus pentoxide (P_2O_5), fed to the process.

Equivalent P_2O_5 stored means the quantity of phosphorus, expressed as phosphorus pentoxide, being cured or stored in the affected facility.

Evaporative cooling tower means an open-water, re-circulating device that uses fans or natural draft to draw or force ambient air through the device to remove heat from process water by direct contact.

Exceedance means a departure from an indicator range established for monitoring under this subpart, consistent with any averaging period specified for averaging the results of the monitoring.

Existing source depends on the date that construction or reconstruction of an affected source commenced. A phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, or granular triple superphosphate storage is an existing source if construction or reconstruction of the affected source commenced on or before December 27, 1996.

Fresh granular triple superphosphate means granular triple superphosphate produced within the preceding 72 hours.

Granular triple superphosphate process line means any process line, not including storage buildings, that manufactures granular triple superphosphate by reacting phosphate rock with phosphoric acid. A granular triple superphosphate process line includes: mixers, curing belts (dens), reactors, granulators, dryers, coolers, screens, and mills.

Granular triple superphosphate storage building means any building curing or storing fresh granular triple superphosphate. A granular triple superphosphate storage building includes: storage or curing buildings, conveyors, elevators, screens, and mills.

New source depends on the date that construction or reconstruction of an affected source commences. A phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium

phosphate process line), granular triple superphosphate process line, or granular triple superphosphate storage is a new source if construction or reconstruction of the affected source commenced after December 27, 1996.

Phosphate fertilizer process line means any process line that manufactures a granular phosphate fertilizer by reacting phosphoric acid with ammonia. A phosphate fertilizer process line includes: reactors, granulators, dryers, coolers, screens, and mills.

Phosphate fertilizer production plant means any production plant that manufactures a granular phosphate fertilizer by reacting phosphoric acid with ammonia.

Research and development facility means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other offsite distribution, except in a de minimis manner.

Shutdown commences when feed materials cease to be added to an affected source and ends when the affected source is deactivated, regardless of whether feed material is present in the affected source.

Startup commences when any feed material is first introduced into an affected source and ends when feed material is fully loaded into the affected source.

Total fluorides means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR part 60, appendix A, Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to § 63.7(f).

§ 63.622 Standards and compliance dates.

(a) On and after the dates specified in paragraphs (a)(1) through (3) of this section, for each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building, you must comply with the emission limits as specified in paragraphs (a)(1) through (3) of this section. If a process line contains more than one emission point, you must sum the emissions from all emission points in a process line to determine compliance with the specified emission limits.

(1) For each existing phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building that commenced construction or reconstruction on or before December 27, 1996, you must comply with the emission limits specified in Table 1 to this subpart beginning on June 10, 2002.

(2) For each new phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building that commences construction or reconstruction after December 27, 1996 and on or before August 19, 2015, you must comply with the emission limits specified in Table 2 to this subpart beginning on June 10, 1999 or at startup, whichever is later.

(3) For each new phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building that commences construction or reconstruction after August 19, 2015, you must comply with the emission limits specified in Table 2 to this subpart immediately upon startup.

(b) Beginning on June 10, 2002, you must not ship fresh granular triple superphosphate from your existing granular triple superphosphate storage building that commenced construction or reconstruction on or before December 27, 1996. Beginning on June 10, 1999 or at startup, whichever is later, you must not ship fresh granular triple superphosphate from your new granular triple superphosphate storage building that commences construction or reconstruction after December 27, 1996.

(c) Beginning on August 19, 2015, you must not introduce into any evaporative cooling tower any liquid effluent

from any absorber installed to control emissions from process equipment.

(d) Beginning on August 19, 2015, during periods of startup and shutdown (as defined in § 63.621), you must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, you must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

§ 63.624 [Reserved]

§ 63.625 Operating and monitoring requirements.

(a) For each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), or granular triple superphosphate process line subject to the provisions of this subpart, you must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in § 63.628(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.

(2) Maintain a daily record of equivalent P_2O_5 feed. Calculate the equivalent P_2O_5 feed by determining the total mass rate in metric ton/hour of phosphorus bearing feed using the procedures specified in § 63.626(f)(3).

(b) For each granular triple superphosphate storage building subject to the provisions of this subpart, you must maintain an accurate record of the mass of granular triple superphosphate in storage to permit the determination of the amount of equivalent P_2O_5 stored.

(c) For each granular triple superphosphate storage building subject to the provisions of this subpart, you must comply with the requirements specified in paragraphs (c)(1) and (2) of this section.

(1) Maintain a daily record of total equivalent P_2O_5 stored by multiplying the percentage P_2O_5 content, as determined by § 63.626(f)(3)(ii), by the total mass of granular triple superphosphate stored as specified in paragraph (b) of this section.

(2) Develop for approval by the Administrator a site-specific methodology including sufficient recordkeeping for the purposes of demonstrating compliance with § 63.622(b).

(d) If you use a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, you must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (4) of this section.

(1) You must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable.

(i) Except as specified in paragraph (d)(1)(ii) of this section, determine the value(s) as the arithmetic average of operating parameter measurements recorded during the three test runs conducted for the most recent performance test.

(ii) If you use an absorber to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.

(A) The allowable range for the daily averages of the pressure drop across an absorber and of the flow rate of the absorber liquid to each absorber in the process absorbing system, or secondary voltage for a wet electrostatic precipitator, is ±20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the

adjustment must not be reduced to less than ±10 percent under any instance.

(B) As an alternative to paragraph (d)(1)(ii)(A) of this section, you may establish allowable ranges for the daily averages of the pressure drop across an absorber for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. You must establish the allowable ranges based on the baseline average values recorded during previous performance tests or the results of performance tests conducted specifically for the purposes of this paragraph. You must conduct all performance tests using the methods specified in § 63.626. You must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

(2) You must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart.

(3) You must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart.

(4) If you use a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, the system must meet the requirements for fabric filters specified in paragraph (e) of this section.

(e) Beginning August 19, 2016, if you use a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, then the fabric filter must be equipped with a bag leak detection system that is installed, calibrated, maintained and continuously operated according to the requirements in paragraphs (e)(1) through (10) of this section.

(1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (*e.g.*, for a positive-pressure fabric filter) of the fabric filter.

(2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic feet) or less.

(3) Use a bag leak detection system equipped with a device to continuously record the output signal from the system sensor.

(4) Use a bag leak detection system equipped with a system that will trigger an alarm when an increase in relative particulate material emissions over a preset level is detected. The alarm must be located such that the alert is observed readily by plant operating personnel.

(5) Install a bag leak detection system in each compartment or cell for positive-pressure fabric filter systems that do not duct all compartments or cells to a common stack. Install a bag leak detector downstream of the fabric filter if a negative-pressure or induced-air filter is used. If multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(6) Calibration of the bag leak detection system must, at a minimum, consist of establishing the baseline output level by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(7) After initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time, except as established in your site-specific monitoring plan required in § 63.628(c). In no event may the sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete inspection of the fabric filter system that demonstrates that the system is in good operating condition.

(8) Operate and maintain each fabric filter and bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. If the alarm sounds more than 5 percent of the operating time during a 6-month

period, it is considered an operating parameter exceedance. Calculate the alarm time (*i.e.*, time that the alarm sounds) as specified in paragraphs (e)(8)(i) through (iii) of this section.

(i) If inspection of the fabric filter demonstrates that corrective action is not required, the alarm duration is not counted in the alarm time calculation.

(ii) If corrective action is required, each alarm time is counted as a minimum of 1 hour.

(iii) If it takes longer than 1 hour to initiate corrective action, each alarm time (*i.e.*, time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.

(9) If the alarm on a bag leak detection system is triggered, you must initiate procedures within 1 hour of an alarm to identify the cause of the alarm and then initiate corrective action, as specified in § 63.628(d)(2), no later than 48 hours after an alarm. Failure to take these actions within the prescribed time periods is considered a violation.

(10) Retain records of any bag leak detection system alarm, including the date, time, duration, and the percent of the total operating time during each 6-month period that the alarm triggers, with a brief explanation of the cause of the alarm, the corrective action taken, and the schedule and duration of the corrective action.

[80 FR 50450, Aug. 19, 2015, as amended at 82 FR 45200, Sept. 28, 2017]

§ 63.626 Performance tests and compliance provisions.

(a) You must conduct an initial performance test to demonstrate compliance with the emission limits specified in Tables 1 and 2 to this subpart, within 180 days of the applicable compliance date specified in § 63.622.

(b) After you conduct the initial performance test specified in paragraph (a) of this section, you must conduct a performance test once per calendar year.

(c) For affected sources (as defined in § 63.620) that have not operated since the previous annual performance test was conducted and more than 1 year has passed since the previous performance test, you must conduct a performance test no later than 180 days after the re-start of the affected source according to the applicable provisions in § 63.7(a)(2).

(d)(1) You must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:

(i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and

(ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.

(2) Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test. You must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(e) In conducting all performance tests, you must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).

(f) For each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), and granular triple superphosphate process line, you must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

(1) Compute the emission rate (E) of total fluorides for each run using Equation BB–1:

$$E = \left(\sum_{i=1}^{N} C_i Q_i \right) / (PK) \qquad \text{(Eq. BB-1)}$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P_2O_5 feed.

Ci = Concentration of total fluorides from emission point ''i,'' milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Qi = Volumetric flow rate of effluent gas from emission point ''i,'' dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P_2O_5 feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

(2) You must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.

(3) Compute the equivalent P_2O_5 feed rate (P) using Equation BB–2:

$$P = M_p R_p \qquad \text{(Eq. BB-2)}$$

Where:

P = P_2O_5 feed rate, metric ton/hour (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P_2O_5 content, decimal fraction.

(i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in § 63.625(a).

(ii) Determine the P_2O_5 content (R_p) of the feed using, as appropriate, the following methods specified in the Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see § 63.14) where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method A—Volumetric Method.

(C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B—Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca3(PO_4)_2$, Method C—Spectrophotometric Method.

(E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A—Volumetric Method.

(F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B—Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C—Spectrophotometric Method.

(g) For each granular triple superphosphate storage building, you must

determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (g)(1) through (7) of this section.

(1) You must conduct performance tests only when the following quantities of product are being cured or stored in the facility:

(i) Total granular triple superphosphate is at least 10 percent of the building capacity, and

(ii) Fresh granular triple superphosphate is at least six percent of the total amount of granular triple superphosphate, or

(iii) If the provision in paragraph (g)(1)(ii) of this section exceeds production capabilities for fresh granular triple superphosphate, the fresh granular triple superphosphate is equal to at least 5 days maximum production.

(2) Compute the emission rate (E) of total fluorides for each run using Equation BB–3:

$$E = \left(\sum_{i=1}^{N} C_i Q_i \right) / (PK) \qquad \text{(Eq. BB-3)}$$

Where:

E = Emission rate of total fluorides, gram/hour/metric ton (pound/hour/ton) of equivalent P_2O_5 stored.

C_i = Concentration of total fluorides from emission point ''i'', milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point ''i'', dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points in the affected facility.

P = Equivalent P_2O_5 stored, metric tons (tons).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

(3) You must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13A, may be omitted.

(4) Compute the equivalent P_2O_5 stored (P) using Equation BB–4:

$$P = M_p R_p \qquad \text{(Eq. BB-4)}$$

Where:

P = P_2O_5 stored (ton).

M_p = Amount of product in storage, metric ton (ton).

R_p = P_2O_5 content of product in storage, weight fraction.

(5) Determine the amount of product (M_p) in storage using the measurement system described in § 63.625(b) and (c).

(6) Determine the P_2O_5 content (R_p) of the product stored using, as appropriate, the following methods specified in the Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see § 63.14) where applicable:

(i) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A—Volumetric Method.

(ii) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-

P_2O_5, Method B—Gravimetric Quimociac Method.

(iii) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C—Spectrophotometric Method, or,

(7) Determine the P_2O_5 content (R_p) of the product stored using, as appropriate, the following methods specified in the Official Methods of Analysis of AOAC International (incorporated by reference, see §63.14) where applicable:

(i) AOAC Official Method 957.02 Phosphorus (Total) In Fertilizers, Preparation of Sample Solution.

(ii) AOAC Official Method 929.01 Sampling of Solid Fertilizers.

(iii) AOAC Official Method 929.02 Preparation of Fertilizer Sample.

(iv) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method.

(v) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method.

(vi) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method.

(vii) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method.

(h) If you use a CMS, you must conduct a performance evaluation, as specified in §63.8(e), in accordance with your site-specific monitoring plan in §63.628(c). For fabric filters, you must conduct a performance evaluation of the bag leak detection system consistent with the guidance provided in Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14). You must record the sensitivity of the bag leak detection system to detecting changes in particulate matter emissions, range, averaging period, and alarm set points during the performance test.

§63.627 Notification, recordkeeping, and reporting requirements.

(a) You must comply with the notification requirements specified in §63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, §63.7(g)(1), or §63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

(b) You must comply with the reporting and recordkeeping requirements in §63.10 as specified in paragraphs (b)(1) through (5) of this section.

(1) You must comply with the general recordkeeping requirements in §63.10(b)(1); and

(2) As required by §63.10(d), you must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in §63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to §63.625, as applicable. In the notification of compliance status, you must also:

(i) Certify to the Administrator that you have not shipped fresh granular triple superphosphate from an affected facility.

(ii) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in §63.622(c).

(iii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see § 63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.

(iv) If you elect to demonstrate compliance by following the procedures in § 63.625(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.

(3) As required by § 63.10(e)(1), you must submit an excess emissions report for any exceedance of an emission or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in § 63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. You must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in § 63.10(e)(3).

(4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:

(i) The date, time and duration of the failure.

(ii) A list of the affected sources or equipment for which a failure occurred.

(iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.

(iv) A description of the method used to estimate the emissions.

(v) A record of actions taken to minimize emissions in accordance with § 63.628(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(5) You must submit a summary report containing the information specified in § 63.10(e)(3)(vi). You must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

(c) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provide access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(d) In computing averages to determine compliance with this subpart, you must exclude the monitoring data specified in paragraphs (d)(1) through (3) of this section.

(1) Periods of non-operation of the process unit;

(2) Periods of no flow to a control device; and

(3) Any monitoring data recorded during continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

(e) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*http://cdx.epa.gov/epa_home.asp*). Performance test data must be submitted in a file format generated through the use of

the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

§ 63.628 General requirements and applicability of general provisions of this part.

(a) You must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

(b) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(c) For each CMS used to demonstrate compliance with any applicable emission limit, you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. You must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under §63.8(f).

(1) You must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.

(i) Location of the CMS sampling probe or other interface. You must include a justification demonstrating that the sampling probe or other interface is 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).

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

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

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.

(v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d)(1) and (2) and Table 5 to this subpart.

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

(2) You must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.

(3) You must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (*i.e.*, superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under § 63.8(d)(2) in the plan.

(d) For each bag leak detection system installed to comply with the requirements specified in § 63.625(e), you must include the information specified in paragraphs (d)(1) and (2) of this section in the site-specific monitoring plan specified in paragraph (c) of this section.

(1) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations), including how the alarm set-point will be established.

(2) A corrective action plan describing corrective actions to be taken and the timing of those actions when the bag leak detection alarm sounds. Corrective actions may include, but are not limited to, the actions specified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in regulated material emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Shutting down the process controlled by the fabric filter.

(e) If you use blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section calculations showing how you determined the maximum possible gas flow rate through the absorber based on the blower's specifications (including any adjustments you made for pressure drop).

(f) If you use a regression model to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section the calculations that were used to develop the regression model, including the calculations you use to convert amperage of the blower to brake horsepower. You must describe any constants included in the equations (e.g., efficiency, power factor), and describe how these constants were determined. If you want to change a constant in your calculation, then you must conduct a regression model verification to confirm the new value of the constant. In addition, the site-specific monitoring plan must be updated annually to reflect the data used in the annual regression model verification that is described in Table 3 to this subpart.

[80 FR 50450, Aug. 19, 2015, as amended at 82 FR 45200, Sept. 28, 2017]

§ 63.629 Miscellaneous requirements.

The Administrator retains the authority to approve site-specific test plans for uncontrolled granular triple superphosphate storage buildings developed pursuant to § 63.7(c)(2)(i).

§ 63.630 [Reserved]

§ 63.631 Exemption from new source performance standards.

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is upon the date that you demonstrate to the Administrator that

the requirements of §§ 63.625 and 63.626 have been met.

§ 63.632 Implementation and enforcement.

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

(b) The authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

(1) Approval of alternatives to the requirements in §§ 63.620, 63.622, 63.625, 63.629, and 63.631.

(2) Approval of requests under §§ 63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in § 63.90.

(3) Approval of requests under § 63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in § 63.90.

(4) Waiver or approval of requests under § 63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in § 63.90.

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

TABLE 1 TO SUBPART BB OF PART 63—EXISTING SOURCE EMISSION LIMITS [A] [B]

For the following existing sources . . .	You must meet the emission limits for the specified pollutant . . .
	Total fluorides
Phosphate Fertilizer Process Line (*e.g.,* Diammonium and/or Monoammonium Phosphate Process Line).	0.060 lb/ton of equivalent P_2O_5 feed.
Granular Triple Superphosphate Process Line	0.150 lb/ton of equivalent P_2O_5 feed.
GTSP storage building	5.0×10^{-4} lb/hr/ton of equivalent P_2O_5 stored.

[a] The existing source compliance date is June 10, 2002.
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.622(d).

TABLE 2 TO SUBPART BB OF PART 63—NEW SOURCE EMISSION LIMITS [A] [B]

For the following new sources . . .	You must meet the emission limits for the specified pollutant . . .
	Total fluorides
Phosphate Fertilizer Process Line (*e.g.,* Diammonium and/or Monoammonium Phosphate Process Line).	0.0580 lb/ton of equivalent P_2O_5 feed.
Granular Triple Superphosphate Process Line	0.1230 lb/ton of equivalent P_2O_5 feed.
GTSP storage building	5.0×10^{-4} lb/hr/ton of equivalent P_2O_5 stored.

[a] The new source compliance dates are based on date of construction or reconstruction as specified in § 63.622(a).
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.622(d).

TABLE 3 TO SUBPART BB OF PART 63—MONITORING EQUIPMENT OPERATING PARAMETERS

You must . . .	If . . .	And you must monitor . . .[a]	And . . .[a]
Absorbers (Wet Scrubbers)			
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber..	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio.	Influent liquid flow.	
Install CPMS for liquid and gas flow at the inlet of the absorber[b].	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or.	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the gas flow rate through the absorber. The units of measure must be consistent with those used to calculate this ratio during the performance test.	You must determine the gas flow rate through the absorber by: Measuring the gas flow rate at the absorber inlet or outlet; Using the blower design capacity, with appropriate adjustments for pressure drop;[c] or Using a regression model.[d]
	Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow.		
Install CPMS for pressure at the gas stream inlet and outlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more.	Pressure drop through the absorber.	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established.

[a] To monitor an operating parameter that is not specified in this table (including process-specific techniques not specified in this table to determine gas flow rate through an absorber), you must request, on a site-specific basis, an alternative monitoring method under the provisions of §63.8(f).

[b] For new sources that commence construction or reconstruction after August 19, 2015, the compliance date is immediately upon startup. For existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, if your absorber is designed and operated with pressure drops of 5 inches of water column or less, then the compliance date is August 19, 2018. In the interim, for existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, with an absorber designed and operated with pressure drops of 5 inches of water column or less, you must comply with one of the following: (i) The monitoring requirements in this Table 3 for absorbers designed and operated with pressure drops of 5 inches of water column or less; (ii) the applicable monitoring provisions included in a permit issued under 40 CFR part 70 to assure compliance with subpart BB; (iii) the applicable monitoring provisions of an Alternative Monitoring Plan approved pursuant to §63.8(f); or (iv) install CPMS for pressure at the gas stream inlet and outlet of the absorber, and monitor pressure drop through the absorber.

[c] If you select this option, then you must comply with §63.628(e). The option to use blower design capacity is intended to establish the maximum possible gas flow through the absorber; and is available regardless of the location of the blower (influent or effluent), as long as the gas flow rate through the absorber can be established. Establish the minimum liquid-to-gas ratio operating limit by dividing the minimum liquid flow rate to the absorber (determined during a performance test) by the maximum possible gas flow rate through the absorber (determined using blower design capacity).

[d] If you select this option, then you must comply with §63.628(f). The regression model must be developed using direct measurements of gas flow rate, and design fan curves that correlate gas flow rate to static pressure (*i.e.,* fan suction pressure) and brake horsepower of the blower. You must conduct an annual regression model verification using direct measurements of gas flow rate to ensure the correlation remains accurate. Direct measurements of gas flow rate used to develop or verify regression models may be collected during, or separately from, the annual performance testing that is required in §63.626(b).

[80 FR 50450, Aug. 19, 2015, as amended at 82 FR 45200, Sept. 28, 2017]

TABLE 4 TO SUBPART BB OF PART 63—OPERATING PARAMETERS, OPERATING LIMITS AND DATA MONITORING, RECORDKEEPING AND COMPLIANCE FREQUENCIES

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit during your performance test . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes.	Daily.

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit during your performance test . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Influent liquid flow rate and gas stream flow rate.	Minimum influent liquid-to-gas ratio[a].	Continuous	Every 15 minutes.	Daily.
For the operating parameter applicable to you, as specified in Table 3.	You must establish the following operating limit.	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement.	Data recording	Data averaging period for compliance.
Pressure drop	Pressure drop range	Continuous	Every 15 minutes.	Daily.
Sorbent Injection				
Sorbent injection rate	Minimum injection rate	Continuous	Every 15 minutes.	Daily.
Sorbent injection carrier gas flow rate.	Minimum carrier gas flow rate ...	Continuous	Every 15 minutes.	Daily.
Fabric Filters				
Alarm time	Maximum alarm time is not established on a site-specific basis but is specified in § 63.605(f)(9).	Continuous	Each date and time of alarm start and stop.	Maximum alarm time specified in § 63.605(f)(9).
Wet Electrostatic Precipitator				
Secondary voltage	Secondary voltage range	Continuous	Every 15 minutes.	Daily.

[82 FR 45201, Sept. 28, 2017]

TABLE 5 TO SUBPART BB OF PART 63—CALIBRATION AND QUALITY CONTROL REQUIREMENTS FOR CONTINUOUS PARAMETER MONITORING SYSTEMS (CPMS)

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Flow Rate	±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate.. ±5 percent over the normal range of flow measured or 28 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate.. ±5 percent over the normal range measured for mass flow rate..	Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor. Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Pressure	±5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater..	Checks for obstructions (*e.g.,* pressure tap pluggage) at least once each process operating day. Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor. Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

Appendix A to Subpart BB of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.1(a)(1) through (4)	General Applicability	Yes	None.
§ 63.1(a)(5)		No	[Reserved].
§ 63.1(a)(6)	Contact information	Yes	None.
§ 63.1(a)(7) through (9)		No	[Reserved].
§ 63.1(a)(10) through (12)	Time periods	Yes	None.
§ 63.1(b)	Initial Applicability Determination	Yes	None.
§ 63.1(c)(1)	Applicability After Standard Established.	Yes	None.
§ 63.1(c)(2)	Permits	Yes	Some plants may be area sources.
§ 63.1(c)(3) through (4)		No	[Reserved].
§ 63.1(c)(5)	Area to Major source change	Yes	None.
§ 63.1(c)(6)		Yes	None.
§ 63.1(d)		No	[Reserved].
§ 63.1(e)	Applicability of Permit Program	Yes	None.
§ 63.2	Definitions	Yes	Additional definitions in § 63.621.
§ 63.3	Units and Abbreviations	Yes	None.
§ 63.4(a)(1) and (2)	Prohibited Activities	Yes	None.
§ 63.4(a)(3) through (5)		No	[Reserved].
§ 63.4(b) and (c)	Circumvention/Fragmentation	Yes	None.
§ 63.5(a)	Construction/Reconstruction Applicability.	Yes	None.
§ 63.5(b)(1)	Existing, New, Reconstructed Sources Requirements.	Yes	None.
§ 63.5(b)(2)		No	[Reserved].
§ 63.5(b)(3), (4), and (6)	Construction/Reconstruction approval and notification.	Yes	None.
§ 63.5(b)(5)		No	[Reserved].
§ 63.5(c)		No	[Reserved].
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes	None.
§ 63.5(e)	Approval of Construction/Reconstruction.	Yes	None.
§ 63.5(f)	Approval of Construction/Reconstruction Based on State Review.	Yes	None.
§ 63.6(a)	Compliance with Standards and Maintenance Applicability.	Yes	None.
§ 63.6(b)(1) through (5)	New and Reconstructed Sources Dates.	Yes	See also § 63.622.
§ 63.6(b)(6)		No	[Reserved].
§ 63.6(b)(7)	Area to major source change	Yes	None.
§ 63.6(c)(1) and (2)	Existing Sources Dates	Yes	§ 63.622 specifies dates.
§ 63.6(c)(3) and (4)		No	[Reserved].
§ 63.6(c)(5)	Area to major source change	Yes	None.
§ 63.6(d)		No	[Reserved].
§ 63.6(e)(1)(i) and (ii)	Operation & Maintenance Requirements.	No	See § 63.628(b) for general duty requirement.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§63.6(e)(iii)		Yes	None.
§63.6(e)(2)		No	[Reserved].
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan.	No	None.
§63.6(f)	Compliance with Emission Standards.	No	See general duty at §63.628(b).
§63.6(g)	Alternative Standard	Yes	None.
§63.6(h)	Compliance with Opacity/VE Standards.	No	Subpart BB does not include VE/opacity standards.
§63.6(i)(1) through (14)	Extension of Compliance	Yes	None.
§63.6(i)(15)		No	[Reserved].
§63.6(i)(16)		Yes	None.
§63.6(j)	Exemption from Compliance	Yes	None.
§63.7(a)	Performance Test Requirements Applicability.	Yes	None.
§63.7(b)	Notification	Yes	None.
§63.7(c)	Quality Assurance/Test Plan	Yes	None.
§63.7(d)	Testing Facilities	Yes	None.
§63.7(e)(1)	Conduct of Tests; startup, shutdown and malfunction provisions.	No	§63.626 specifies additional requirements.
§63.7(e)(2) through (4)	Conduct of Tests	Yes	§63.626 specifies additional requirements.
§63.7(f)	Alternative Test Method	Yes	None.
§63.7(g)	Data Analysis	Yes	None.
§63.7(h)	Waiver of Tests	Yes	None.
§63.8(a)	Monitoring Requirements Applicability.	Yes	None.
§63.8(b)	Conduct of Monitoring	Yes	None.
§63.8(c)(1)(i)	General duty to minimize emissions and CMS operation.	No	See §63.628(b) for general duty requirement.
§63.8(c)(1)(ii)		Yes	None.
§63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS.	No	None.
§63.8(c)(2) through (4)	CMS Operation/Maintenance	Yes	None.
§63.8(c)(5)	COMS Operation	No	Subpart BB does not require COMS.
§63.8(c)(6) through (8)	CMS requirements	Yes	None.
§63.8(d)(1) and (2)	Quality Control	Yes	None.
§63.8(d)(3)	Written procedure for CMS	No	See §63.628 for requirement.
§63.8(e)	CMS Performance Evaluation	Yes	None.
§63.8(f)(1) through (5)	Alternative Monitoring Method	Yes	None.
§63.8(f)(6)	Alternative to RATA Test	No	Subpart BB does not require CEMS.
§63.8(g)(1)	Data Reduction	Yes	None.
§63.8(g)(2)		No	Subpart BB does not require COMS or CEMS.
§63.8(g)(3) through (5)		Yes	None.
§63.9(a)	Notification Requirements Applicability.	Yes	None.
§63.9(b)	Initial Notifications	Yes	None.
§63.9(c)	Request for Compliance Extension.	Yes	None.
§63.9(d)	New Source Notification for Special Compliance Requirements.	Yes	None.
§63.9(e)	Notification of Performance Test	Yes	None.
§63.9(f)	Notification of VE/Opacity Test	No	Subpart BB does not include VE/opacity standards.
§63.9(g)	Additional CMS Notifications	Yes	None.
§63.9(h)(1) through (3)	Notification of Compliance Status.	Yes	None.
§63.9(h)(4)		No	[Reserved].
§63.9(h)(5) and (6)		Yes	None.
§63.9(i)	Adjustment of Deadlines	Yes	None.
§63.9(j)	Change in Previous Information	Yes	None.
§63.9(k)		Yes	Only as specified in §63.9(j).
§63.10(a)	Recordkeeping/Reporting-Applicability.	Yes	None.
§63.10(b)(1)	General Recordkeeping Requirements.	Yes	None.
§63.10(b)(2)(i)	Startup or shutdown duration	No	None.
§63.10(b)(2)(ii)	Malfunction	No	See §63.627 for recordkeeping and reporting requirement.
§63.10(b)(2)(iii)	Maintenance records	Yes	None.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.10(b)(2)(iv) and (v)	Startup, shutdown, malfunction actions.	No	None.
§ 63.10(b)(2)(vi) through (xiv)	General Recordkeeping Requirements.	Yes	None.
§ 63.10(b)(3)	General Recordkeeping Requirements.	Yes	None.
§ 63.10(c)(1)	Additional CMS Recordkeeping	Yes	None.
§ 63.10(c)(2) through (4)		No	[Reserved].
§ 63.10(c)(5)		Yes	None.
§ 63.10(c)(6)		Yes	None.
§ 63.10(c)(7) and (8)		Yes	None.
§ 63.10(c)(9)		No	[Reserved].
§ 63.10(c)(10) through (13)		Yes	None.
§ 63.10(c)(14)		Yes	None.
§ 63.10(c)(15)	Startup Shutdown Malfunction Plan Provisions.	No	None.
§ 63.10(d)(1)	General Reporting Requirements	Yes	None.
§ 63.10(d)(2)	Performance Test Results	Yes	None.
§ 63.10(d)(3)	Opacity or VE Observations	No	Subpart BB does not include VE/opacity standards.
§ 63.10(d)(4)	Progress Reports	Yes	None.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	No	See § 63.627 for reporting of excess emissions.
§ 63.10(e)(1) and (2)	Additional CMS Reports	Yes	None.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports.	Yes	None.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart BB does not require COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes	None.
§ 63.11	Control Device and Work Practice Requirements.	Yes	None.
§ 63.12	State Authority and Delegations	Yes	None.
§ 63.13	Addresses	Yes	None.
§ 63.14	Incorporation by Reference	Yes	None.
§ 63.15	Information Availability/Confidentiality.	Yes	None.
§ 63.16	Performance Track Provisions	No	Terminated.

[80 FR 50450, Aug. 19, 2015, as amended at 85 FR 73892, Nov. 19, 2020]

Subpart CC—National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

SOURCE: 60 FR 43260, Aug. 18, 1995, unless otherwise noted.

§ 63.640 Applicability and designation of affected source.

(a) This subpart applies to petroleum refining process units and to related emissions points that are specified in paragraphs (c)(1) through (9) of this section that are located at a plant site and that meet the criteria in paragraphs (a)(1) and (2) of this section:

(1) Are located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and

(2) Emit or have equipment containing or contacting one or more of the hazardous air pollutants listed in table 1 of this subpart.

(b)(1) If the predominant use of the flexible operation unit, as described in paragraphs (b)(1)(i) and (ii) of this section, is as a petroleum refining process unit, as defined in § 63.641, then the flexible operation unit shall be subject to the provisions of this subpart.

(i) Except as provided in paragraph (b)(1)(ii) of this section, the predominant use of the flexible operation unit shall be the use representing the greatest annual operating time.

(ii) If the flexible operation unit is used as a petroleum refining process unit and for another purpose equally based on operating time, then the predominant use of the flexible operation unit shall be the use that produces the greatest annual production on a mass basis.

(2) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units

shall be reported as specified in § 63.655(h)(6)(i).

(c) For the purposes of this subpart, the affected source shall comprise all emissions points, in combination, listed in paragraphs (c)(1) through (9) of this section that are located at a single refinery plant site.

(1) All miscellaneous process vents from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(2) All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(3) All wastewater streams and treatment operations associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(4) All equipment leaks from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(5) All gasoline loading racks classified under Standard Industrial Classification code 2911 meeting the criteria in paragraph (a) of this section;

(6) All marine vessel loading operations located at a petroleum refinery meeting the criteria in paragraph (a) of this section and the applicability criteria of subpart Y, § 63.560;

(7) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery meeting the criteria in paragraph (a) of this section; and

(8) All heat exchange systems, as defined in this subpart.

(9) All releases associated with the decoking operations of a delayed coking unit, as defined in this subpart.

(d) The affected source subject to this subpart does not include the emission points listed in paragraphs (d)(1) through (d)(5) of this section.

(1) Stormwater from segregated stormwater sewers;

(2) Spills;

(3) Any pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system that is intended to operate in organic hazardous air pollutant service, as defined in § 63.641 of this subpart, for less than 300 hours during the calendar year;

(4) Catalytic cracking unit and catalytic reformer catalyst regeneration vents, and sulfur plant vents; and

(5) Emission points routed to a fuel gas system, as defined in § 63.641, provided that on and after January 30, 2019, any flares receiving gas from that fuel gas system are subject to § 63.670. No other testing, monitoring, recordkeeping, or reporting is required for refinery fuel gas systems or emission points routed to refinery fuel gas systems.

(e) The owner or operator of a storage vessel constructed on or before August 18, 1994, shall follow the procedures specified in paragraphs (e)(1) and (e)(2) of this section to determine whether a storage vessel is part of a source to which this subpart applies. The owner or operator of a storage vessel constructed after August 18, 1994, shall follow the procedures specified in paragraphs (e)(1), (e)(2)(i), and (e)(2)(ii) of this section to determine whether a storage vessel is part of a source to which this subpart applies.

(1) Where a storage vessel is used exclusively by a process unit, the storage vessel shall be considered part of that process unit.

(i) If the process unit is a petroleum refining process unit subject to this subpart, then the storage vessel is part of the affected source to which this subpart applies.

(ii) If the process unit is not subject to this subpart, then the storage vessel is not part of the affected source to which this subpart applies.

(2) If a storage vessel is not dedicated to a single process unit, then the applicability of this subpart shall be determined according to the provisions in paragraphs (e)(2)(i) through (e)(2)(iii) of this section.

(i) If a storage vessel is shared among process units and one of the process units has the predominant use, as determined by paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section, then the storage vessel is part of that process unit.

(A) If the greatest input on a volume basis into the storage vessel is from a

process unit that is located on the same plant site, then that process unit has the predominant use.

(B) If the greatest input on a volume basis into the storage vessel is provided from a process unit that is not located on the same plant site, then the predominant use shall be the process unit that receives the greatest amount of material on a volume basis from the storage vessel at the same plant site.

(ii) If a storage vessel is shared among process units so that there is no single predominant use, and at least one of those process units is a petroleum refining process unit subject to this subpart, the storage vessel shall be considered to be part of the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the storage vessel to any of the petroleum refining process units subject to this subpart.

(iii) If the predominant use of a storage vessel varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that storage vessel during the year preceding August 18, 1995. This determination shall be reported as specified in §63.655(h)(6)(ii).

(f) The owner or operator of a distillation unit constructed on or before August 18, 1994, shall follow the procedures specified in paragraphs (f)(1) through (f)(4) of this section to determine whether a miscellaneous process vent from a distillation unit is part of a source to which this subpart applies. The owner or operator of a distillation unit constructed after August 18, 1994, shall follow the procedures specified in paragraphs (f)(1) through (f)(5) of this section to determine whether a miscellaneous process vent from a distillation unit is part of a source to which this subpart applies.

(1) If the greatest input to the distillation unit is from a process unit located on the same plant site, then the distillation unit shall be assigned to that process unit.

(2) If the greatest input to the distillation unit is provided from a process unit that is not located on the same plant site, then the distillation unit shall be assigned to the process unit located at the same plant site that receives the greatest amount of material from the distillation unit.

(3) If a distillation unit is shared among process units so that there is no single predominant use, as described in paragraphs (f)(1) and (f)(2) of this section, and at least one of those process units is a petroleum refining process unit subject to this subpart, the distillation unit shall be assigned to the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the distillation unit to any of the petroleum refining process units subject to this rule.

(4) If the process unit to which the distillation unit is assigned is a petroleum refining process unit subject to this subpart and the vent stream contains greater than 20 parts per million by volume total organic hazardous air pollutants, then the vent from the distillation unit is considered a miscellaneous process vent (as defined in §63.641 of this subpart) and is part of the source to which this subpart applies.

(5) If the predominant use of a distillation unit varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that distillation unit during the year preceding August 18, 1995. This determination shall be reported as specified in §63.655(h)(6)(iii).

(g) The provisions of this subpart do not apply to the processes specified in paragraphs (g)(1) through (g)(7) of this section.

(1) Research and development facilities, regardless of whether the facilities are located at the same plant site as a petroleum refining process unit that is subject to the provisions of this subpart;

(2) Equipment that does not contain any of the hazardous air pollutants listed in table 1 of this subpart that is located within a petroleum refining process unit that is subject to this subpart;

(3) Units processing natural gas liquids;

(4) Units that are used specifically for recycling discarded oil;

(5) Shale oil extraction units;

(6) Ethylene processes; and

(7) Process units and emission points subject to subparts F, G, H, and I of this part.

(h) Sources subject to this subpart are required to achieve compliance on or before the dates specified in table 11 of this subpart, except as provided in paragraphs (h)(1) through (3) of this section.

(1) Marine tank vessels at existing sources shall be in compliance with this subpart, except for §§ 63.657 through 63.660, no later than August 18, 1999, unless the vessels are included in an emissions average to generate emission credits. Marine tank vessels used to generate credits in an emissions average shall be in compliance with this subpart no later than August 18, 1998, unless an extension has been granted by the Administrator as provided in § 63.6(i).

(2) Existing Group 1 floating roof storage vessels meeting the applicability criteria in item 1 of the definition of Group 1 storage vessel shall be in compliance with § 63.646 at the first degassing and cleaning activity after August 18, 1998, or August 18, 2005, whichever is first.

(3) An owner or operator may elect to comply with the provisions of § 63.648(c) through (i) as an alternative to the provisions of § 63.648(a) and (b). In such cases, the owner or operator shall comply no later than the dates specified in paragraphs (h)(3)(i) through (iii) of this section.

(i) Phase I (see table 2 of this subpart), beginning on August 18, 1998;

(ii) Phase II (see table 2 of this subpart), beginning no later than August 18, 1999; and

(iii) Phase III (see table 2 of this subpart), beginning no later than February 18, 2001.

(i) If an additional petroleum refining process unit is added to a plant site that is a major source as defined in section 112(a) of the Clean Air Act, the addition shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (i)(1) through (i)(3) of this section:

(1) It is an addition that meets the definition of construction in § 63.2 of subpart A of this part;

(2) Such construction commenced after July 14, 1994; and

(3) The addition has the potential to emit 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

(j) If any change is made to a petroleum refining process unit subject to this subpart, the change shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (j)(1) and (j)(2) of this section:

(1) It is a change that meets the definition of reconstruction in § 63.2 of subpart A of this part; and

(2) Such reconstruction commenced after July 14, 1994.

(k) If an additional petroleum refining process unit is added to a plant site or a change is made to a petroleum refining process unit and the addition or change is determined to be subject to the new source requirements according to paragraphs (i) or (j) of this section it must comply with the requirements specified in paragraphs (k)(1) and (k)(2) of this section:

(1) The reconstructed source, addition, or change shall be in compliance with the new source requirements in item (1), (2), or (3) of table 11 of this subpart, as applicable, upon initial startup of the reconstructed source or by August 18, 1995, whichever is later; and

(2) The owner or operator of the reconstructed source, addition, or change shall comply with the reporting and recordkeeping requirements that are applicable to new sources. The applicable reports include, but are not limited to:

(i) The application for approval of construction or reconstruction shall be submitted as soon as practical before the construction or reconstruction is planned to commence (but it need not be sooner than November 16, 1995);

(ii) The Notification of Compliance Status report as required by § 63.655(f) for a new source, addition, or change;

(iii) Periodic Reports and other reports as required by § 63.655(g) and (h);

(iv) Reports and notifications required by § 60.487 of subpart VV of part 60 or § 63.182 of subpart H of this part.

The requirements for subpart H are summarized in table 3 of this subpart;

(v) Reports required by 40 CFR 61.357 of subpart FF;

(vi) Reports and notifications required by § 63.428(b), (c), (g)(1), (h)(1) through (h)(3), and (k) of subpart R. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by §§ 63.565 and 63.567 of subpart Y of this part. These requirements are summarized in table 5 of this subpart.

(l) If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, gasoline loading rack, marine tank vessel loading operation, heat exchange system, or decoking operation that meets the criteria in paragraphs (c)(1) through (9) of this section is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emissions point(s) (as defined in § 63.641) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to paragraph (i) or (j) of this section, the requirements in paragraphs (l)(1) through (4) of this section shall apply. Examples of process changes include, but are not limited to, changes in production capacity, or feed or raw material where the change requires construction or physical alteration of the existing equipment or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph (l) and paragraph (m) of this section, process changes do not include: Process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by § 63.655(f).

(1) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

(2) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit shall be in compliance with the applicable requirements in item (4) of table 11 of this subpart by the dates specified in paragraph (l)(2)(i) or (ii) of this section.

(i) If a petroleum refining process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup of any added petroleum refining process unit or emission point(s) or by the applicable compliance date in item (4) of table 11 of this subpart, whichever is later.

(ii) If a deliberate operational process change to an existing petroleum refining process unit causes a Group 2 emission point to become a Group 1 emission point (as defined in § 63.641), the owner or operator shall be in compliance upon initial startup or by August 18, 1998, whichever is later, unless the owner or operator demonstrates to the Administrator that achieving compliance will take longer than making the change. If this demonstration is made to the Administrator's satisfaction, the owner or operator shall follow the procedures in paragraphs (m)(1) through (m)(3) of this section to establish a compliance date.

(3) The owner or operator of a petroleum refining process unit or of a storage vessel, miscellaneous process vent, wastewater stream, gasoline loading rack, marine tank vessel loading operation, heat exchange system, or decoking operation meeting the criteria in paragraphs (c)(1) through (9) of this section that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and recordkeeping requirements that are applicable to existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (vii) of this section. A process change to an existing petroleum refining process unit shall be subject to the reporting requirements for existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (vii) of this section. The applicable reports include, but are not limited to:

(i) The Notification of Compliance Status report as required by § 63.655(f) for the emission points that were added or changed;

(ii) Periodic Reports and other reports as required by § 63.655(g) and (h);

(iii) Reports and notifications required by sections of subpart A of this part that are applicable to this subpart, as identified in table 6 of this subpart.

(iv) Reports and notifications required by § 63.182, or 40 CFR 60.487. The requirements of subpart H of this part are summarized in table 3 of this subpart;

(v) Reports required by § 61.357 of subpart FF;

(vi) Reports and notifications required by § 63.428(b), (c), (g)(1), (h)(1) through (h)(3), and (k) of subpart R. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by §§ 63.565 and 63.567 of subpart Y. These requirements are summarized in table 5 of this subpart.

(4) If pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, or instrumentation systems are added to an existing source, they are subject to the equipment leak standards for existing sources in § 63.648. A notification of compliance status report shall not be required for such added equipment.

(m) If a change that does not meet the criteria in paragraph (l) of this section is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in § 63.641), then the owner or operator shall comply with the applicable requirements of this subpart for existing sources, as specified in item (4) of table 11 of this subpart, for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.

(1) The owner or operator shall submit to the Administrator for approval a compliance schedule, along with a justification for the schedule.

(2) The compliance schedule shall be submitted within 180 days after the change is made, unless the compliance schedule has been previously submitted to the permitting authority. If it is not possible to determine until after the change is implemented whether the emission point has become Group 1, the compliance schedule shall be submitted within 180 days of the date when the affect of the change is known to the source. The compliance schedule may be submitted in the next Periodic Report if the change is made after the date the Notification of Compliance Status report is due.

(3) The Administrator shall approve or deny the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification. Approval is automatic if not received from the Administrator within 120 calendar days of receipt.

(n) Overlap of this subpart with other regulations for storage vessels. As applicable, paragraphs (n)(1), (3), (4), (6), and (7) of this section apply for Group 2 storage vessels and paragraphs (n)(2) and (5) of this section apply for Group 1 storage vessels.

(1) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section. After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the provisions of 40 CFR part 61, subpart Y, is required to comply only with the requirements of 40 CFR part 61, subpart Y, except as provided in paragraph (n)(10) of this section.

(2) After the compliance dates specified in paragraph (h) of this section, a Group 1 storage vessel that is also subject to 40 CFR part 60, subpart Kb, is required to comply only with either 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section or this subpart. After the compliance dates specified in paragraph (h) of this section, a Group 1 storage vessel that is also subject to 40 CFR part 61, subpart Y, is required to comply only with either 40 CFR part 61, subpart Y, except as provided in paragraph (n)(10) of this section or this subpart.

(3) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to 40 CFR

60.110b, but is not required to apply controls by 40 CFR 60.110b or 60.112b, is required to comply only with this subpart.

(4) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to 40 CFR 61.270, but is not required to apply controls by 40 CFR 61.271, is required to comply only with this subpart.

(5) After the compliance dates specified in paragraph (h) of this section, a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart K or Ka, is required to only comply with the provisions of this subpart.

(6) After compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the control requirements of 40 CFR part 60, subparts K or Ka is required to comply only with the provisions of 40 CFR part 60, subparts K or Ka except as provided for in paragraph (n)(9) of this section.

(7) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to 40 CFR part 60, subparts K or Ka, but not to the control requirements of 40 CFR part 60, subparts K or Ka, is required to comply only with this subpart.

(8) Storage vessels described by paragraph (n)(1) of this section are to comply with 40 CFR part 60, subpart Kb, except as provided in paragraphs (n)(8)(i) through (vi) of this section. Storage vessels described by paragraph (n)(2) electing to comply with part 60, subpart Kb of this chapter shall comply with subpart Kb except as provided in paragraphs (n)(8)(i) through (viii) of this section.

(i) Storage vessels that are to comply with §60.112b(a)(2) of subpart Kb are exempt from the secondary seal requirements of §60.112b(a)(2)(i)(B) during the gap measurements for the primary seal required by §60.113b(b) of subpart Kb.

(ii) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in §60.113b(b) of this chapter or to inspect the vessel to determine compliance with §60.113b(a) of this chapter because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or (ii) of subpart G (only up to the compliance date specified in paragraph (h) of this section for compliance with §63.660, as applicable) or either §63.1063(c)(2)(iv)(A) or (B) of subpart WW.

(iii) If a failure is detected during the inspections required by §60.113b(a)(2) or during the seal gap measurements required by §60.113b(b)(1), and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Administrator.

(iv) If an extension is utilized in accordance with paragraph (n)(8)(iii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, provide the information listed in §60.113b(a)(2) or §60.113b(b)(4)(iii), and describe the nature and date of the repair made or provide the date the storage vessel was emptied.

(v) Owners and operators of storage vessels complying with subpart Kb of part 60 may submit the inspection reports required by §§60.115b(a)(3), (a)(4), and (b)(4) of subpart Kb as part of the periodic reports required by this subpart, rather than within the 30-day period specified in §§60.115b(a)(3), (a)(4), and (b)(4) of subpart Kb.

(vi) The reports of rim seal inspections specified in §60.115b(b)(2) are not required if none of the measured gaps or calculated gap areas exceed the limitations specified in §60.113b(b)(4). Documentation of the inspections shall be recorded as specified in §60.115b(b)(3).

(vii) To be in compliance with §60.112b(a)(1)(iv) or (a)(2)(ii) of this chapter, guidepoles in floating roof storage vessels must be equipped with covers and/or controls (*e.g.*, pole float system, pole sleeve system, internal sleeve system or flexible enclosure system) as appropriate to comply with the ''no visible gap'' requirement.

(viii) If a flare is used as a control device for a storage vessel, on and after

January 30, 2019, the owner or operator must meet the requirements of § 63.670 instead of the requirements referenced from part 60, subpart Kb of this chapter for that flare.

(9) Storage vessels described by paragraph (n)(6) of this section that are to comply with 40 CFR part 60, subpart Ka, are to comply with only subpart Ka except as provided for in paragraphs (n)(9)(i) through (n)(9)(iv) of this section.

(i) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in § 60.113a(a)(1) of this chapter because the floating roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either § 63.120(b)(7)(i) or (ii) of subpart G (only up to the compliance date specified in paragraph (h) of this section for compliance with § 63.660, as applicable) or either § 63.1063(c)(2)(iv)(A) or (B) of subpart WW.

(ii) If a failure is detected during the seal gap measurements required by § 60.113a(a)(1) of subpart Ka, and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each.

(iii) If an extension is utilized in accordance with paragraph (n)(9)(ii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, describe the nature and date of the repair made or provide the date the storage vessel was emptied. The owner or operator shall also provide documentation of the decision to utilize an extension including a description of the failure, documentation that alternate storage capacity is unavailable, and a schedule of actions that will ensure that the control equipment will be repaired or the vessel emptied as soon as possible.

(iv) Owners and operators of storage vessels complying with subpart Ka of part 60 may submit the inspection reports required by § 60.113a(a)(1)(i)(E) of subpart Ka as part of the periodic reports required by this subpart, rather than within the 60-day period specified in § 60.113a(a)(1)(i)(E) of subpart Ka.

(10) Storage vessels described by paragraph (n)(1) of this section are to comply with 40 CFR part 61, subpart Y, except as provided in paragraphs (n)(10)(i) through (vi) of this section. Storage vessels described by paragraph (n)(2) electing to comply with 40 CFR part 61, subpart Y, shall comply with subpart Y except as provided for in paragraphs (n)(10)(i) through (viii) of this section.

(i) Storage vessels that are to comply with § 61.271(b) of this chapter are exempt from the secondary seal requirements of § 61.271(b)(2)(ii) of this chapter during the gap measurements for the primary seal required by § 61.272(b) of this chapter.

(ii) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in § 61.272(b) of this chapter or to inspect the vessel to determine compliance with § 61.272(a) of this chapter because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either § 63.120(b)(7)(i) or (ii) of subpart G (only up to the compliance date specified in paragraph (h) of this section for compliance with § 63.660, as applicable) or either § 63.1063(c)(2)(iv)(A) or (B) of subpart WW.

(iii) If a failure is detected during the inspections required by § 61.272(a)(2) of this chapter or during the seal gap measurements required by § 61.272(b)(1) of this chapter, and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Administrator.

(iv) If an extension is utilized in accordance with paragraph (n)(10)(iii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, provide the information listed in § 61.272(a)(2) or (b)(4)(iii) of this chapter, and describe the nature and date of the repair made or provide the date the storage vessel was emptied.

(v) Owners and operators of storage vessels complying with 40 CFR part 61, subpart Y, may submit the inspection reports required by § 61.275(a), (b)(1), and (d) of this chapter as part of the periodic reports required by this subpart, rather than within the 60-day period specified in § 61.275(a), (b)(1), and (d) of this chapter.

(vi) The reports of rim seal inspections specified in § 61.275(d) of this chapter are not required if none of the measured gaps or calculated gap areas exceed the limitations specified in § 61.272(b)(4) of this chapter. Documentation of the inspections shall be recorded as specified in § 61.276(a) of this chapter.

(vii) To be in compliance with § 61.271(a)(6) or (b)(3) of this chapter, guidepoles in floating roof storage vessels must be equipped with covers and/or controls (*e.g.*, pole float system, pole sleeve system, internal sleeve system or flexible enclosure system) as appropriate to comply with the ''no visible gap'' requirement.

(viii) If a flare is used as a control device for a storage vessel, on and after January 30, 2019, the owner or operator must meet the requirements of § 63.670 instead of the requirements referenced from part 61, subpart Y of this chapter for that flare.

(o) Overlap of this subpart CC with other regulations for wastewater.

(1) After the compliance dates specified in paragraph (h) of this section a Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR part 60, subpart QQQ is required to comply only with this subpart.

(2) After the compliance dates specified in paragraph (h) of this section a Group 1 or Group 2 wastewater stream that is conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of §§ 63.133 through 63.147 of subpart G wastewater provisions of this part shall comply as specified in paragraph (o)(2)(i) or (o)(2)(ii) of this section. Compliance with the provisions of paragraph (o)(2) of this section shall constitute compliance with the requirements of this subpart for that wastewater stream.

(i) Comply with paragraphs (o)(2)(i)(A) through (D) of this section.

(A) The provisions in §§ 63.133 through 63.140 of subpart G for all equipment used in the storage and conveyance of the Group 1 or Group 2 wastewater stream.

(B) The provisions in both 40 CFR part 61, subpart FF and in §§ 63.138 and 63.139 of subpart G for the treatment and control of the Group 1 or Group 2 wastewater stream.

(C) The provisions in §§ 63.143 through 63.148 of subpart G for monitoring and inspections of equipment and for recordkeeping and reporting requirements. The owner or operator is not required to comply with the monitoring, recordkeeping, and reporting requirements associated with the treatment and control requirements in 40 CFR part 61, subpart FF, §§ 61.355 through 61.357.

(D) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of 40 CFR part 61, subpart FF, and subpart G of this part, or the requirements of § 63.670.

(ii) Comply with paragraphs (o)(2)(ii)(A) through (C) of this section.

(A) Comply with the provisions of §§ 63.133 through 63.148 and §§ 63.151 and 63.152 of subpart G.

(B) For any Group 2 wastewater stream or organic stream whose benzene emissions are subject to control through the use of one or more treatment processes or waste management units under the provisions of 40 CFR part 61, subpart FF on or after December 31, 1992, comply with the requirements of § 63.133 through § 63.147 of subpart G for Group 1 wastewater streams.

(C) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of 40 CFR part 61, subpart FF, and subpart G of this part, or the requirements of § 63.670.

(p) Overlap of subpart CC with other regulations for equipment leaks.

(1) After the compliance dates specified in paragraph (h) of this section, equipment leaks that are also subject

to the provisions of 40 CFR parts 60 and 61 standards promulgated before September 4, 2007, are required to comply only with the provisions specified in this subpart.

(2) Equipment leaks that are also subject to the provisions of 40 CFR part 60, subpart GGGa, are required to comply only with the provisions specified in 40 CFR part 60, subpart GGGa, except that pressure relief devices in organic HAP service must only comply with the requirements in § 63.648(j).

(q) For overlap of subpart CC with local or State regulations, the permitting authority for the affected source may allow consolidation of the monitoring, recordkeeping, and reporting requirements under this subpart with the monitoring, recordkeeping, and reporting requirements under other applicable requirements in 40 CFR parts 60, 61, or 63, and in any 40 CFR part 52 approved State implementation plan provided the implementation plan allows for approval of alternative monitoring, reporting, or recordkeeping requirements and provided that the permit contains an equivalent degree of compliance and control.

(r) Overlap of subpart CC with other regulations for gasoline loading racks. After the compliance dates specified in paragraph (h) of this section, a Group 1 gasoline loading rack that is part of a source subject to subpart CC and also is subject to the provisions of 40 CFR part 60, subpart XX is required to comply only with this subpart.

(s) Overlap of this subpart with other regulation for flares. On January 30, 2019, flares that are subject to the provisions of 40 CFR 60.18 or 63.11 and subject to this subpart are required to comply only with the provisions specified in this subpart. Prior to January 30, 2019, flares that are subject to the provisions of 40 CFR 60.18 or 63.11 and elect to comply with the requirements in §§ 63.670 and 63.671 are required to comply only with the provisions specified in this subpart.

[60 FR 43260, Aug. 18, 1995; 61 FR 7051, Feb. 23, 1996, as amended at 61 FR 29878, June 12, 1996; 63 FR 44140, Aug. 18, 1998; 66 FR 28841, May 25, 2001; 74 FR 55683, Oct. 28, 2009; 78 FR 37145, June 20, 2013; 80 FR 75237, Dec. 1, 2015; 85 FR 6082, Feb. 4, 2020]

§ 63.641 Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act, subpart A of this part, and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Affected source means the collection of emission points to which this subpart applies as determined by the criteria in § 63.640.

Aliphatic means open-chained structure consisting of paraffin, olefin and acetylene hydrocarbons and derivatives.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the annual average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local annual average temperature reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

(1) In accordance with methods specified in § 63.111 of subpart G of this part;

(2) From standard reference texts; or

(3) By any other method approved by the Administrator.

Assist air means all air that intentionally is introduced prior to or at a flare tip through nozzles or other hardware conveyance for the purposes including, but not limited to, protecting the design of the flare tip, promoting turbulence for mixing or inducing air into the flame. *Assist air* includes premix assist air and perimeter assist air. *Assist air* does not include the surrounding ambient air.

Assist steam means all steam that intentionally is introduced prior to or at a flare tip through nozzles or other hardware conveyance for the purposes including, but not limited to, protecting the design of the flare tip, promoting turbulence for mixing or inducing air into the flame. *Assist steam* includes, but is not necessarily limited to, center steam, lower steam and upper steam.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

By compound means by individual stream components, not by carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Center steam means the portion of assist steam introduced into the stack of a flare to reduce burnback.

Closed blowdown system means a system used for depressuring process vessels that is not open to the atmosphere and is configured of piping, ductwork, connections, accumulators/knockout drums, and, if necessary, flow inducing devices that transport gas or vapor from a process vessel to a control device or back into the process.

Closed vent system means a system that is not open to the atmosphere and is configured of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device or back into the process. If gas or vapor from regulated equipment is routed to a process (e.g., to a petroleum refinery fuel gas system), the process shall not be considered a closed vent system and is not subject to closed vent system standards.

Combustion device means an individual unit of equipment such as a flare, incinerator, process heater, or boiler used for the combustion of organic hazardous air pollutant vapors.

Combustion zone means the area of the flare flame where the combustion zone gas combines for combustion.

Combustion zone gas means all gases and vapors found just after a flare tip. This gas includes all flare vent gas, total steam, and premix air.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are accessible.

Continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every hour and recorded at the frequency specified in § 63.655(i).

Continuous recorder means a data recording device recording an instantaneous data value or an average data value at least once every hour.

Control device means any equipment used for recovering, removing, or oxidizing organic hazardous air pollutants. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For miscellaneous process vents (as defined in this section), recovery devices (as defined in this section) are not considered control devices.

Cooling tower means a heat removal device used to remove the heat absorbed in circulating cooling water systems by transferring the heat to the atmosphere using natural or mechanical draft.

Cooling tower return line means the main water trunk lines at the inlet to the cooling tower before exposure to the atmosphere.

Decoking operations means the sequence of steps conducted at the end of the delayed coking unit's cooling cycle to open the coke drum to the atmosphere in order to remove coke from the coke drum. *Decoking operations* begin at the end of the cooling cycle when steam released from the coke drum is no longer discharged via the unit's blowdown system but instead is vented directly to the atmosphere. *Decoking operations* include atmospheric depressuring (venting), deheading, draining, and decoking (coke cutting).

Delayed coking unit means a refinery process unit in which high molecular weight petroleum derivatives are thermally cracked and petroleum coke is produced in a series of closed, batch system reactors. A *delayed coking unit* includes, but is not limited to, all of the coke drums associated with a single fractionator; the fractionator, including the bottoms receiver and the overhead condenser; the coke drum cutting water and quench system, including the jet pump and coker quench water tank; and the coke drum blowdown recovery compressor system.

Delayed coker vent means a miscellaneous process vent that contains

uncondensed vapors from the delayed coking unit's blowdown system. Venting from the *delayed coker vent* is typically intermittent in nature, and occurs primarily during the cooling cycle of a delayed coking unit coke drum when vapor from the coke drums cannot be sent to the fractionator column for product recovery. The emissions from the decoking operations, which include direct atmospheric venting, deheading, draining, or decoking (coke cutting), are not considered to be *delayed coker vents*.

Distillate receiver means overhead receivers, overhead accumulators, reflux drums, and condenser(s) including ejector-condenser(s) associated with a distillation unit.

Distillation unit means a device or vessel in which one or more feed streams are separated into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and the vapor phases by vaporization and condensation as they approach equilibrium within the distillation unit. Distillation unit includes the distillate receiver, reboiler, and any associated vacuum pump or steam jet.

Emission point means an individual miscellaneous process vent, storage vessel, wastewater stream, equipment leak, decoking operation or heat exchange system associated with a petroleum refining process unit; an individual storage vessel or equipment leak associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911; a gasoline loading rack classified under Standard Industrial Classification code 2911; or a marine tank vessel loading operation located at a petroleum refinery.

Equipment leak means emissions of organic hazardous air pollutants from a pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system ''in organic hazardous air pollutant service'' as defined in this section. Vents from wastewater collection and conveyance systems (including, but not limited to wastewater drains, sewer vents, and sump drains), tank mixers, and sample valves on storage tanks are not equipment leaks.

Flame zone means the portion of a combustion chamber of a boiler or process heater occupied by the flame envelope created by the primary fuel.

Flare means a combustion device lacking an enclosed combustion chamber that uses an uncontrolled volume of ambient air to burn gases. For the purposes of this rule, the definition of flare includes, but is not necessarily limited to, pressure-assisted flares, air-assisted flares, steam-assisted flares, and non-assisted flares.

Flare purge gas means gas introduced between a flare header's water seal and the flare tip to prevent oxygen infiltration (backflow) into the flare tip or for other safety reasons. For a flare with no water seal, the function of *flare purge gas* is performed by flare sweep gas and, therefore, by definition, such a flare has no *flare purge gas*.

Flare supplemental gas means all gas introduced to the flare to improve the heat content of combustion zone gas. *Flare supplemental gas* does not include assist air or assist steam.

Flare sweep gas means, for a flare with a flare gas recovery system, the gas intentionally introduced into the flare header system to maintain a constant flow of gas through the flare header in order to prevent oxygen buildup in the flare header; *flare sweep gas* in these flares is introduced prior to and recovered by the flare gas recovery system. For a flare without a flare gas recovery system, *flare sweep gas* means the gas intentionally introduced into the flare header system to maintain a constant flow of gas through the flare header and out the flare tip in order to prevent oxygen buildup in the flare header and to prevent oxygen infiltration (backflow) into the flare tip.

Flare vent gas means all gas found just prior to the flare tip. This gas includes all flare waste gas (*i.e.*, gas from facility operations that is directed to a flare for the purpose of disposing of the gas), that portion of flare sweep gas that is not recovered, flare purge gas and flare supplemental gas, but does not include pilot gas, total steam or assist air.

Flexible enclosure device means a seal made of an elastomeric fabric (or other material) which completely encloses a slotted guidepole or ladder and eliminates the vapor emission pathway from inside the storage vessel through the guidepole slots or ladder slots to the outside air.

Flexible operation unit means a process unit that manufactures different products periodically by alternating raw materials or operating conditions. These units are also referred to as campaign plants or blocked operations.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow, in a line.

Force majeure event means a release of HAP, either directly to the atmosphere from a pressure relief device or discharged via a flare, that is demonstrated to the satisfaction of the Administrator to result from an event beyond the refinery owner or operator's control, such as natural disasters; acts of war or terrorism; loss of a utility external to the refinery (*e.g.*, external power curtailment), excluding power curtailment due to an interruptible service agreement; and fire or explosion originating at a near or adjoining facility outside of the refinery that impacts the refinery's ability to operate.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous streams generated by refinery operations, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines, and other combustion devices located within or outside of the refinery. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric. The gaseous streams can contain a mixture of methane, light hydrocarbons, hydrogen and other miscellaneous species.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater that is used as a fuel for internal combustion engines.

Gasoline loading rack means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill gasoline cargo tanks.

Group 1 gasoline loading rack means any gasoline loading rack classified under Standard Industrial Classification code 2911 that is located within a bulk gasoline terminal that has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput for the terminal as may be limited by compliance with enforceable conditions under Federal, State, or local law and discovered by the Administrator and any other person.

Group 1 marine tank vessel means a vessel at an existing source loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals in bulk onto marine tank vessels, that emits greater than 9.1 megagrams of any individual HAP or 22.7 megagrams of any combination of HAP annually after August 18, 1999, or a vessel at a new source loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals onto marine tank vessels.

Group 1 miscellaneous process vent means a miscellaneous process vent for which the total organic HAP concentration is greater than or equal to 20 parts per million by volume, and the total volatile organic compound emissions are greater than or equal to 33 kilograms per day for existing sources and 6.8 kilograms per day for new sources at the outlet of the final recovery device (if any) and prior to any control device and prior to discharge to the atmosphere.

Group 1 storage vessel means:

(1) Prior to February 1, 2016:

(i) A storage vessel at an existing source that has a design capacity greater than or equal to 177 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 10.4 kilopascals and stored-liquid annual average true vapor pressure greater than or equal to 8.3 kilopascals and annual average HAP liquid concentration greater than 4 percent by weight total organic HAP;

(ii) A storage vessel at a new source that has a design storage capacity greater than or equal to 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 3.4 kilopascals and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP; or

(iii) A storage vessel at a new source that has a design storage capacity greater than or equal to 76 cubic meters and less than 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 77 kilopascals and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP.

(2) On and after February 1, 2016:

(i) A storage vessel at an existing source that has a design capacity greater than or equal to 151 cubic meters (40,000 gallons) and stored-liquid maximum true vapor pressure greater than or equal to 5.2 kilopascals (0.75 pounds per square inch) and annual average HAP liquid concentration greater than 4 percent by weight total organic HAP;

(ii) A storage vessel at an existing source that has a design storage capacity greater than or equal to 76 cubic meters (20,000 gallons) and less than 151 cubic meters (40,000 gallons) and stored-liquid maximum true vapor pressure greater than or equal to 13.1 kilopascals (1.9 pounds per square inch) and annual average HAP liquid concentration greater than 4 percent by weight total organic HAP;

(iii) A storage vessel at a new source that has a design storage capacity greater than or equal to 151 cubic meters (40,000 gallons) and stored-liquid maximum true vapor pressure greater than or equal to 3.4 kilopascals (0.5 pounds per square inch) and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP; or

(iv) A storage vessel at a new source that has a design storage capacity greater than or equal to 76 cubic meters (20,000 gallons) and less than 151 cubic meters (40,000 gallons) and stored-liquid maximum true vapor pressure greater than or equal to 13.1 kilopascals (1.9 pounds per square inch) and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP.

Group 1 wastewater stream means a wastewater stream at a petroleum refinery with a total annual benzene loading of 10 megagrams per year or greater as calculated according to the procedures in 40 CFR 61.342 of subpart FF of part 61 that has a flow rate of 0.02 liters per minute or greater, a benzene concentration of 10 parts per million by weight or greater, and is not exempt from control requirements under the provisions of 40 CFR part 61, subpart FF.

Group 2 gasoline loading rack means a gasoline loading rack classified under Standard Industrial Classification code 2911 that does not meet the definition of a Group 1 gasoline loading rack.

Group 2 marine tank vessel means a marine tank vessel that does not meet the definition of a Group 1 marine tank vessel.

Group 2 miscellaneous process vent means a miscellaneous process vent that does not meet the definition of a Group 1 miscellaneous process vent.

Group 2 storage vessel means a storage vessel that does not meet the definition of a Group 1 storage vessel.

Group 2 wastewater stream means a wastewater stream that does not meet the definition of Group 1 wastewater stream.

Hazardous air pollutant or *HAP* means one of the chemicals listed in section 112(b) of the Clean Air Act.

Heat exchange system means a device or collection of devices used to transfer heat from process fluids to water without intentional direct contact of the process fluid with the water (*i.e.*, noncontact heat exchanger) and to transport and/or cool the water in a closed-loop recirculation system (cooling tower system) or a once-through system (e.g., river or pond water). For closed-loop recirculation systems, the *heat exchange system* consists of a cooling tower, all petroleum refinery process unit heat exchangers that are in organic HAP service, as defined in this subpart, serviced by that cooling tower, and all water lines to and from these petroleum refinery process unit heat exchangers. For once-through systems, the *heat exchange system* consists

of all heat exchangers that are in organic HAP service, as defined in this subpart, servicing an individual petroleum refinery process unit and all water lines to and from these heat exchangers. Sample coolers or pump seal coolers are not considered heat exchangers for the purpose of this definition and are not part of the *heat exchange system.* Intentional direct contact with process fluids results in the formation of a wastewater.

Heat exchanger exit line means the cooling water line from the exit of one or more heat exchangers (where cooling water leaves the heat exchangers) to either the entrance of the cooling tower return line or prior to exposure to the atmosphere, in, as an example, a once-through cooling system, whichever occurs first.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in § 60.593(d) of part 60, subpart GGG.

In organic hazardous air pollutant service or *in organic HAP service* means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of § 63.180(d) of this part and table 1 of this subpart. The provisions of § 63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Leakless valve means a valve that has no external actuating mechanism.

Lower steam means the portion of assist steam piped to an exterior annular ring near the lower part of a flare tip, which then flows through tubes to the flare tip, and ultimately exits the tubes at the flare tip.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

(1) In accordance with methods specified in § 63.111 of subpart G of this part;

(2) From standard reference texts; or

(3) By any other method approved by the Administrator.

Miscellaneous process vent means a gas stream containing greater than 20 parts per million by volume organic HAP that is continuously or periodically discharged from a petroleum refining process unit meeting the criteria specified in § 63.640(a). *Miscellaneous process vents* include gas streams that are discharged directly to the atmosphere, gas streams that are routed to a control device prior to discharge to the atmosphere, or gas streams that are diverted through a product recovery device prior to control or discharge to the atmosphere. *Miscellaneous process vents* include vent streams from: Caustic wash accumulators, distillation tower condensers/accumulators, flash/knockout drums, reactor vessels, scrubber overheads, stripper overheads, vacuum pumps, steam ejectors, hot wells, high point bleeds, wash tower overheads, water wash accumulators, blowdown condensers/accumulators, and delayed coker vents. *Miscellaneous process vents* do not include:

(1) Gaseous streams routed to a fuel gas system, provided that on and after January 30, 2019, any flares receiving gas from the fuel gas system are in compliance with § 63.670;

(2) Pressure relief device discharges;

(3) Leaks from equipment regulated under § 63.648;

(4) [Reserved]

(5) In situ sampling systems (onstream analyzers) until February 1, 2016. After this date, these sampling systems will be included in the definition of miscellaneous process vents and

sampling systems determined to be Group 1 miscellaneous process vents must comply with the requirements in §§ 63.643 and 63.644 no later than January 30, 2019;

(6) Catalytic cracking unit catalyst regeneration vents;

(7) Catalytic reformer regeneration vents;

(8) Sulfur plant vents;

(9) Vents from control devices such as scrubbers, boilers, incinerators, and electrostatic precipitators applied to catalytic cracking unit catalyst regeneration vents, catalytic reformer regeneration vents, and sulfur plant vents;

(10) Vents from any stripping operations applied to comply with the wastewater provisions of this subpart, subpart G of this part, or 40 CFR part 61, subpart FF;

(11) Emissions associated with delayed coking unit decoking operations;

(12) Vents from storage vessels;

(13) Emissions from wastewater collection and conveyance systems including, but not limited to, wastewater drains, sewer vents, and sump drains; and

(14) Hydrogen production plant vents through which carbon dioxide is removed from process streams or through which steam condensate produced or treated within the hydrogen plant is degassed or deaerated.

Net heating value means the energy released as heat when a compound undergoes complete combustion with oxygen to form gaseous carbon dioxide and gaseous water (also referred to as lower heating value).

Operating permit means a permit required by 40 CFR parts 70 or 71.

Organic hazardous air pollutant or *organic HAP* in this subpart, means any of the organic chemicals listed in table 1 of this subpart.

Perimeter assist air means the portion of assist air introduced at the perimeter of the flare tip or above the flare tip. *Perimeter assist air* includes air intentionally entrained in lower and upper steam. *Perimeter assist air* includes all assist air except premix assist air.

Periodically discharged means discharges that are intermittent and associated with routine operations, maintenance activities, startups, shutdowns, malfunctions, or process upsets.

Petroleum-based solvents means mixtures of aliphatic hydrocarbons or mixtures of one and two ring aromatic hydrocarbons.

Petroleum refining process unit means a process unit used in an establishment primarily engaged in petroleum refining as defined in the Standard Industrial Classification code for petroleum refining (2911), and used primarily for the following:

(1) Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants;

(2) Separating petroleum; or

(3) Separating, cracking, reacting, or reforming intermediate petroleum streams.

(4) Examples of such units include, but are not limited to, petroleum-based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units also include sulfur plants.

Pilot gas means gas introduced into a flare tip that provides a flame to ignite the flare vent gas.

Plant site means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Premix assist air means the portion of assist air that is introduced to the flare vent gas, whether injected or induced, prior to the flare tip. Premix assist air also includes any air intentionally entrained in center steam.

Pressure relief device means a valve, rupture disk, or similar device used only to release an unplanned, nonroutine discharge of gas from process equipment in order to avoid safety hazards or equipment damage. A pressure

relief device discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause. Such devices include conventional, spring-actuated relief valves, balanced bellows relief valves, pilot-operated relief valves, rupture disks, and breaking, buckling, or shearing pin devices.

Primary fuel means the fuel that provides the principal heat input (i.e., more than 50 percent) to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed combustion device that primarily transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process unit means the equipment assembled and connected by pipes or ducts to process raw and/or intermediate materials and to manufacture an intended product. A process unit includes any associated storage vessels. For the purpose of this subpart, process unit includes, but is not limited to, chemical manufacturing process units and petroleum refining process units.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not considered a process unit shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, or would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown is not considered a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not considered process unit shutdowns.

Recovery device means an individual unit of equipment capable of and used for the purpose of recovering chemicals for use, reuse, or sale. Recovery devices include, but are not limited to, absorbers, carbon adsorbers, and condensers.

Reference control technology for gasoline loading racks means a vapor collection and processing system used to reduce emissions due to the loading of gasoline cargo tanks to 10 milligrams of total organic compounds per liter of gasoline loaded or less.

Reference control technology for marine vessels means a vapor collection system and a control device that reduces captured HAP emissions by 97 percent.

Reference control technology for miscellaneous process vents means a combustion device used to reduce organic HAP emissions by 98 percent, or to an outlet concentration of 20 parts per million by volume.

Reference control technology for storage vessels means either:

(1) For Group 1 storage vessels complying with § 63.660:

(i) An internal floating roof, including an external floating roof converted to an internal floating roof, meeting the specifications of §§ 63.1063(a)(1)(i), (a)(2), and (b) and 63.660(b)(2);

(ii) An external floating roof meeting the specifications of §§ 63.1063(a)(1)(ii), (a)(2), and (b) and 63.660(b)(2); or

(iii) [Reserved]

(iv) A closed-vent system to a control device that reduces organic HAP emissions by 95 percent, or to an outlet concentration of 20 parts per million by volume (ppmv).

(v) For purposes of emissions averaging, these four technologies are considered equivalent.

(2) For all other storage vessels:

(i) An internal floating roof meeting the specifications of § 63.119(b) of subpart G except for § 63.119(b)(5) and (6);

(ii) An external floating roof meeting the specifications of § 63.119(c) of subpart G except for § 63.119(c)(2);

(iii) An external floating roof converted to an internal floating roof meeting the specifications of § 63.119(d) of subpart G except for § 63.119(d)(2); or

(iv) A closed-vent system to a control device that reduces organic HAP emissions by 95 percent, or to an outlet concentration of 20 parts per million by volume.

(v) For purposes of emissions averaging, these four technologies are considered equivalent.

Reference control technology for wastewater means the use of:

(1) Controls specified in §§ 61.343 through 61.347 of subpart FF of part 61;

(2) A treatment process that achieves the emission reductions specified in table 7 of this subpart for each individual HAP present in the wastewater stream or is a steam stripper that meets the specifications in § 63.138(g) of subpart G of this part; and

(3) A control device to reduce by 95 percent (or to an outlet concentration of 20 parts per million by volume for combustion devices) the organic HAP emissions in the vapor streams vented from treatment processes (including the steam stripper described in paragraph (2) of this definition) managing wastewater.

Refinery fuel gas means a gaseous mixture of methane, light hydrocarbons, hydrogen, and other miscellaneous species (nitrogen, carbon dioxide, hydrogen sulfide, etc.) that is produced in the refining of crude oil and/or petrochemical processes and that is separated for use as a fuel in boilers and process heaters throughout the refinery.

Regulated material means any stream associated with emission sources listed in § 63.640(c) required to meet control requirements under this subpart as well as any stream for which this subpart or a cross-referencing subpart specifies that the requirements for flare control devices in § 63.670 must be met.

Relief valve means a type of pressure relief device that is designed to reclose after the pressure relief.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and is not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Shutdown means the cessation of a petroleum refining process unit or a unit operation (including, but not limited to, a distillation unit or reactor) within a petroleum refining process unit for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair.

Startup means the setting into operation of a petroleum refining process unit for purposes of production. Startup does not include operation solely for purposes of testing equipment. Startup does not include changes in product for flexible operation units.

Storage vessel means a tank or other vessel that is used to store organic liquids. Storage vessel does not include:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels with capacities smaller than 40 cubic meters;

(4) Bottoms receiver tanks; or

(5) Wastewater storage tanks. Wastewater storage tanks are covered under the wastewater provisions.

Temperature monitoring device means a unit of equipment used to monitor temperature and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater.

Thermal expansion relief valve means a pressure relief valve designed to protect equipment from excess pressure due to thermal expansion of blocked liquid-filled equipment or piping due to ambient heating or heat from a heat tracing system. Pressure relief valves designed to protect equipment from excess pressure due to blockage against a pump or compressor or due to fire contingency are not thermal expansion relief valves.

Total annual benzene means the total amount of benzene in waste streams at a facility on an annual basis as determined in § 61.342 of 40 CFR part 61, subpart FF.

Total organic compounds or *TOC*, as used in this subpart, means those compounds excluding methane and ethane measured according to the procedures

of Method 18 of 40 CFR part 60, appendix A. Method 25A may be used alone or in combination with Method 18 to measure TOC as provided in § 63.645 of this subpart.

Total steam means the total of all steam that is supplied to a flare and includes, but is not limited to, lower steam, center steam and upper steam.

Upper steam means the portion of assist steam introduced via nozzles located on the exterior perimeter of the upper end of the flare tip.

Wastewater means water or wastewater that, during production or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product and is discharged into any individual drain system. Examples are feed tank drawdown; water formed during a chemical reaction or used as a reactant; water used to wash impurities from organic products or reactants; water used to cool or quench organic vapor streams through direct contact; and condensed steam from jet ejector systems pulling vacuum on vessels containing organics.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29879, June 12, 1996; 62 FR 7938, Feb. 21, 1997; 63 FR 31361, June 9, 1998; 63 FR 44141, Aug. 18, 1998; 74 FR 55685, Oct. 28, 2008; 78 FR 37146, June 20, 2013; 80 FR 75239, Dec. 1, 2015; 81 FR 45241, July 13, 2016; 83 FR 60713, Nov. 26, 2018; 85 FR 6082, Feb. 4, 2020; 89 FR 23858, Apr. 4, 2024]

§ 63.642 General standards.

(a) Each owner or operator of a source subject to this subpart is required to apply for a part 70 or part 71 operating permit from the appropriate permitting authority. If the EPA has approved a State operating permit program under part 70, the permit shall be obtained from the State authority. If the State operating permit program has not been approved, the source shall apply to the EPA Regional Office pursuant to part 71.

(b) The emission standards set forth in this subpart shall apply at all times.

(c) Table 6 of this subpart specifies the provisions of subpart A of this part that apply and those that do not apply to owners and operators of sources subject to this subpart.

(d) Initial performance tests and initial compliance determinations shall be required only as specified in this subpart.

(1) Performance tests and compliance determinations shall be conducted according to the schedule and procedures specified in this subpart.

(2) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 days before the performance test is scheduled.

(3) Performance tests shall be conducted according to the provisions of § 63.7(e) except that performance tests shall be conducted at maximum representative operating capacity for the process. During the performance test, an owner or operator shall operate the control device at either maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction. An owner or operator shall not conduct a performance test during startup, shutdown, periods when the control device is bypassed or periods when the process, monitoring equipment or control device is not operating properly. The owner/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 the test was conducted at maximum representative operating capacity. 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.

(4) Data shall be reduced in accordance with the EPA-approved methods specified in the applicable section 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.

(e) All applicable records shall be maintained as specified in § 63.655(i).

(f) All reports required under this subpart shall be sent to the Administrator at the addresses listed in § 63.13 of subpart A of this part. If acceptable to both the Administrator and the

owner or operator of a source, reports may be submitted on electronic media.

(g) The owner or operator of an existing source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the following equation:

$$E_A = 0.02\Sigma\ EPV_1 + \Sigma\ EPV_2 + 0.05\Sigma\ ES_1 + \Sigma\ ES_2 + \Sigma\ EGLR_{1C} + \Sigma\ EGLR_2 + (R)\ \Sigma\ EMV_1 + \Sigma\ EMV_2 + \Sigma\ EWW_{1C} + \Sigma\ EWW_2$$

where:

E_A = Emission rate, megagrams per year, allowed for the source.

$0.02\Sigma\ EPV_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 miscellaneous process vents, as defined in § 63.641.

$\Sigma\ EPV_2$ = Sum of the emissions, megagrams per year, from all Group 2 process vents, as defined in § 63.641.

$0.05\Sigma\ ES_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 storage vessels, as defined in § 63.641.

$\Sigma\ ES_2$ = Sum of the emissions, megagrams per year, from all Group 2 storage vessels, as defined in § 63.641.

$\Sigma\ EGLR_{1C}$ = Sum of the residual emissions, megagrams per year, from all Group 1 gasoline loading racks, as defined in § 63.641.

$\Sigma\ EGLR_2$ = Sum of the emissions, megagrams per year, from all Group 2 gasoline loading racks, as defined in § 63.641.

$(R)\Sigma\ EMV_1$ = Sum of the residual emissions megagrams per year, from all Group 1 marine tank vessels, as defined in § 63.641.

R = 0.03 for existing sources, 0.02 for new sources.

$\Sigma\ EMV_2$ = Sum of the emissions, megagrams per year from all Group 2 marine tank vessels, as defined in § 63.641.

$\Sigma\ EWW_{1C}$ = Sum of the residual emissions from all Group 1 wastewater streams, as defined in § 63.641. This term is calculated for each Group 1 stream according to the equation for EWW_{ic} in § 63.652(h)(6).

$\Sigma\ EWW_2$ = Sum of emissions from all Group 2 wastewater streams, as defined in § 63.641.

The emissions level represented by this equation is dependent on the collection of emission points in the source. The level is not fixed and can change as the emissions from each emission point change or as the number of emission points in the source changes.

(h) The owner or operator of a new source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the equation in paragraph (g) of this section.

(i) The owner or operator of an existing source shall demonstrate compliance with the emission standard in paragraph (g) of this section by following the procedures specified in paragraph (k) of this section for all emission points, or by following the emissions averaging compliance approach specified in paragraph (l) of this section for specified emission points and the procedures specified in paragraph (k)(1) of this section.

(j) The owner or operator of a new source shall demonstrate compliance with the emission standard in paragraph (h) of this section only by following the procedures in paragraph (k) of this section. The owner or operator of a new source may not use the emissions averaging compliance approach.

(k) The owner or operator of an existing source may comply, and the owner or operator of a new source shall comply, with the applicable provisions in §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as specified in § 63.640(h).

(1) The owner or operator using this compliance approach shall also comply with the requirements of §§ 63.648 and/or 63.649, 63.654, 63.655, 63.657, 63.658, 63.670 and 63.671, as applicable.

(2) The owner or operator using this compliance approach is not required to calculate the annual emission rate specified in paragraph (g) of this section.

(l) The owner or operator of an existing source may elect to control some of the emission points within the source to different levels than specified under §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as applicable according to § 63.640(h), by using an emissions averaging compliance approach as long as the overall emissions for the source do not exceed the emission level specified in paragraph (g) of this section. The owner or operator using emissions averaging shall meet the requirements in paragraphs (l)(1) and (2) of this section.

(1) Calculate emission debits and credits for those emission points involved in the emissions average according to the procedures specified in § 63.652; and

(2) Comply with the requirements of §§ 63.648 and/or 63.649, 63.654, 63.652, 63.653, 63.655, 63.657, 63.658, 63.670 and 63.671, as applicable.

(m) A State may restrict the owner or operator of an existing source to using only the procedures in paragraph (k) of this section to comply with the emission standard in paragraph (g) of this section. Such a restriction would preclude the source from using an emissions averaging compliance approach.

(n) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[60 FR 43260, Aug. 18, 1995; 61 FR 7051, Feb. 23, 1996, as amended at 61 FR 29879, June 12, 1996; 74 FR 55685, Oct. 28, 2009; 80 FR 75242, Dec. 1, 2015]

§ 63.643 Miscellaneous process vent provisions.

(a) The owner or operator of a Group 1 miscellaneous process vent as defined in § 63.641 shall comply with the requirements of either paragraph (a)(1) or (2) of this section or, if applicable, paragraph (c) of this section. The owner or operator of a miscellaneous process vent that meets the conditions in paragraph (c) of this section is only required to comply with the requirements of paragraph (c) of this section and § 63.655(g)(13) and (i)(12) for that vent.

(1) Reduce emissions of organic HAP's using a flare. On and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the requirements of § 63.11(b) of subpart A or the requirements of § 63.670.

(2) Reduce emissions of organic HAP's, using a control device, by 98 weight-percent or to a concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent. Compliance can be determined by measuring either organic HAP's or TOC's using the procedures in § 63.645.

(b) If a boiler or process heater is used to comply with the percentage of reduction requirement or concentration limit specified in paragraph (a)(2) of this section, then the vent stream shall be introduced into the flame zone of such a device, or in a location such that the required percent reduction or concentration is achieved. Testing and monitoring is required only as specified in §§ 63.644(a) and 63.645 of this subpart.

(c) An owner or operator may designate a process vent as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed or placed into service. The owner or operator does not need to designate a maintenance vent as a Group 1 or Group 2 miscellaneous process vent nor identify maintenance vents in a Notification of Compliance Status report. The owner or operator must comply with the applicable requirements in paragraphs (c)(1) through (3) of this section for each maintenance vent according to the compliance dates specified in table 11 of this subpart, unless an extension is requested in accordance with the provisions in § 63.6(i).

(1) Prior to venting to the atmosphere, process liquids are removed from the equipment as much as practical and the equipment is depressured to a control device meeting requirements in paragraphs (a)(1) or (2) of this section, a fuel gas system, or back to the process until one of the following conditions, as applicable, is met.

(i) The concentration of the vapor in the equipment served by the maintenance vent is less than 10 percent of its lower explosive limit (LEL).

(ii) If there is no ability to measure the concentration of the vapor in the equipment based on the design of the equipment, the pressure in the equipment served by the maintenance vent is reduced to 5 pounds per square inch gauge (psig) or less. Upon opening the maintenance vent, active purging of the equipment cannot be used until the concentration of the vapors in the maintenance vent (or inside the equipment if the maintenance is a hatch or similar type of opening) is less than 10 percent of its LEL.

(iii) The equipment served by the maintenance vent contains less than 72 pounds of total volatile organic compounds (VOC).

(iv) If the maintenance vent is associated with equipment containing pyrophoric catalyst (e.g., hydrotreaters and hydrocrackers) and a pure hydrogen supply is not available at the equipment at the time of the startup, shutdown, maintenance, or inspection activity, the concentration of the vapor in the equipment must be less than 20 percent of its LEL, except for one event per year not to exceed 35 percent of its LEL.

(v) If, after applying best practices to isolate and purge equipment served by a maintenance vent, none of the applicable criterion in paragraphs (c)(1)(i) through (iv) of this section can be met prior to installing or removing a blind flange or similar equipment blind, the pressure in the equipment served by the maintenance vent is reduced to 2 psig or less. Active purging of the equipment may be used provided the equipment pressure at the location where purge gas is introduced remains at 2 psig or less.

(2) Except for maintenance vents complying with the alternative in paragraph (c)(1)(iii) of this section, the owner or operator must determine the concentration of the vapor or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications.

(3) For maintenance vents complying with the alternative in paragraph (c)(1)(iii) of this section, the owner or operator shall determine mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

(d) After February 1, 2016 and prior to the date of compliance with the maintenance vent provisions in paragraph (c) of this section, the owner or operator must comply with the requirements in § 63.642(n) for each maintenance venting event and maintain records necessary to demonstrate compliance with the requirements in § 63.642(n) including, if appropriate, records of existing standard site procedures used to deinventory equipment for safety purposes.

[60 FR 43260, Aug. 18, 1995, as amended at 80 FR 75242, Dec. 1, 2015; 81 FR 45241, July 13, 2016; 83 FR 60714, Nov. 26, 2018; 85 FR 6082, Feb. 4, 2020; 89 FR 23858, Apr. 4, 2024]

§ 63.644 Monitoring provisions for miscellaneous process vents.

(a) Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 miscellaneous process vent that uses a combustion device to comply with the requirements in § 63.643(a) shall install the monitoring equipment specified in paragraph (a)(1), (2), (3), or (4) of this section, depending on the type of combustion device used. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately and, except for CPMS installed for pilot flame monitoring, must meet the applicable minimum accuracy, calibration and quality control requirements specified in table 13 of this subpart.

(1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the

firebox in a position before any substantial heat exchange occurs.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Where a flare is used prior to January 30, 2019, a device (including but not limited to a thermocouple, an ultraviolet beam sensor, or an infrared sensor) capable of continuously detecting the presence of a pilot flame is required, or the requirements of § 63.670 shall be met. Where a flare is used on and after January 30, 2019, the requirements of § 63.670 shall be met.

(3) Any boiler or process heater with a design heat input capacity greater than or equal to 44 megawatt or any boiler or process heater in which all vent streams are introduced into the flame zone is exempt from monitoring.

(4) Any boiler or process heater less than 44 megawatts design heat capacity where the vent stream is not introduced into the flame zone is required to use a temperature monitoring device in the firebox equipped with a continuous recorder.

(b) An owner or operator of a Group 1 miscellaneous process vent may request approval to monitor parameters other than those listed in paragraph (a) of this section. The request shall be submitted according to the procedures specified in § 63.655(h). Approval shall be requested if the owner or operator:

(1) Uses a control device other than an incinerator, boiler, process heater, or flare; or

(2) Uses one of the control devices listed in paragraph (a) of this section, but seeks to monitor a parameter other than those specified in paragraph (a) of this section.

(c) The owner or operator of a Group 1 miscellaneous process vent using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with paragraph (a) of this section either directly to the atmosphere or to a control device that does not comply with the requirements in § 63.643(a) shall comply with either paragraph (c)(1), (2), or (3) of this section. Use of the bypass at any time to divert a Group 1 miscellaneous process vent stream to the atmosphere or to a control device that does not comply with the requirements in § 63.643(a) is an emissions standards violation. Equipment such as low leg drains and equipment subject to § 63.648 are not subject to this paragraph (c).

(1) Install, calibrate and maintain a flow indicator that determines whether a vent stream flow is present at least once every hour. A manual block valve equipped with a valve position indicator may be used in lieu of a flow indicator, as long as the valve position indicator is monitored continuously. Records shall be generated as specified in § 63.655(h) and (i). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and that the vent stream is not diverted through the bypass line; or

(3) Use a cap, blind flange, plug, or a second valve for an open-ended valve or line following the requirements specified in § 60.482–6(a)(2), (b) and (c).

(d) The owner or operator shall establish a range that ensures compliance with the emissions standard for each parameter monitored under paragraphs (a) and (b) of this section. In order to establish the range, the information required in § 63.655(f)(3) shall be submitted in the Notification of Compliance Status report.

(e) Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum and/or maximum operating parameter value or procedure required to be monitored under paragraphs (a) and (b) of this section. Operation of the control device in a manner that constitutes a period of excess emissions, as defined in § 63.655(g)(6), or failure to perform procedures required by this section shall

constitute a violation of the applicable emission standard of this subpart.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 63 FR 44141, Aug. 18, 1998; 74 FR 55685, Oct. 28, 2009; 80 FR 75243, Dec. 1, 2015; 83 FR 60714, Nov. 26, 2018]

§ 63.645 Test methods and procedures for miscellaneous process vents.

(a) To demonstrate compliance with § 63.643, an owner or operator shall follow § 63.116 except for § 63.116 (a)(1), (d) and (e) of subpart G of this part except as provided in paragraphs (b) through (d) and paragraph (i) of this section.

(b) All references to § 63.113(a)(1) or (a)(2) in § 63.116 of subpart G of this part shall be replaced with § 63.643(a)(1) or (a)(2), respectively.

(c) In § 63.116(c)(4)(ii)(C) of subpart G of this part, organic HAP's in the list of HAP's in table 1 of this subpart shall be considered instead of the organic HAP's in table 2 of subpart F of this part.

(d) All references to § 63.116(b)(1) or (b)(2) shall be replaced with paragraphs (d)(1) and (d)(2) of this section, respectively.

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

(2) Any boiler or process heater in which all vent streams are introduced into the flame zone.

(e) For purposes of determining the TOC emission rate, as specified under paragraph (f) of this section, the sampling site shall be after the last product recovery device (as defined in § 63.641 of this subpart) (if any recovery devices are present) but prior to the inlet of any control device (as defined in § 63.641 of this subpart) that is present, prior to any dilution of the process vent stream, and prior to release to the atmosphere.

(1) Methods 1 or 1A of 40 CFR part 60, appendix A–1, as appropriate, shall be used for selection of the sampling site. For vents smaller than 0.10 meter in diameter, sample at the center of the vent.

(2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.

(f) Except as provided in paragraph (g) of this section, an owner or operator seeking to demonstrate that a process vent TOC mass flow rate is less than 33 kilograms per day for an existing source or less than 6.8 kilograms per day for a new source in accordance with the Group 2 process vent definition of this subpart shall determine the TOC mass flow rate by the following procedures:

(1) The sampling site shall be selected as specified in paragraph (e) of this section.

(2) The gas volumetric flow rate shall be determined using Methods 2, 2A, 2C, 2D, or 2F of 40 CFR part 60, appendix A–1 or Method 2G of 40 CFR part 60, appendix A–2, as appropriate.

(3) Method 18 or Method 25A of 40 CFR part 60, appendix A shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used. If Method 25A is used, and the TOC mass flow rate calculated from the Method 25A measurement is greater than or equal to 33 kilograms per day for an existing source or 6.8 kilograms per day for a new source, Method 18 may be used to determine any non-VOC hydrocarbons that may be deducted to calculate the TOC (minus non-VOC hydrocarbons) concentration and mass flow rate. The following procedures shall be used to calculate parts per million by volume concentration:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(ii) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation if Method 18 is used:

$$C_{TOC} = \frac{\sum_{i=1}^{x}\left(\sum_{j=1}^{n} C_{ji}\right)}{X}$$

where:

C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

C_{ji} = Concentration of sample component j of the sample i, dry basis, parts per million by volume.
n = Number of components in the sample.
x = Number of samples in the sample run.

(4) The emission rate of TOC (minus methane and ethane) (E_{TOC}) shall be calculated using the following equation if Method 18 is used:

$$E = K_2 \left[\sum_{j=1}^{n} C_j M_j \right] Q_s$$

where:

E = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.
K_2 = Constant, 5.986×10^{-5} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram per gram) (minute per day), where the standard temperature (standard cubic meter) is at 20 °C.
C_j = Concentration on a dry basis of organic compound j in parts per million as measured by Method 18 of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section. C_j includes all organic compounds measured minus methane and ethane.
M_j = Molecular weight of organic compound j, gram per gram-mole.
Q_s = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(5) If Method 25A is used, the emission rate of TOC (E_{TOC}) shall be calculated using the following equation:

$$E_{TOC} = K_2 C_{TOC} M Q_s$$

where:

E_{TOC} = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.
K_2 = Constant, 5.986×10^{-5} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram per gram)(minute per day), where the standard temperature (standard cubic meter) is at 20 °C.
C_{TOC} = Concentration of TOC on a dry basis in parts per million volume as measured by Method 25A of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section.
M = Molecular weight of organic compound used to express units of C_{TOC}, gram per gram-mole.
Q_s = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(g) Engineering assessment may be used to determine the TOC emission rate for the representative operating condition expected to yield the highest daily emission rate.

(1) Engineering assessment includes, but is not limited to, the following:

(i) Previous test results provided the tests are representative of current operating practices at the process unit.

(ii) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(iii) TOC emission rate specified or implied within a permit limit applicable to the process vent.

(iv) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(A) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(B) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities; and

(C) Estimation of TOC concentrations based on saturation conditions.

(v) All data, assumptions, and procedures used in the engineering assessment shall be documented.

(h) The owner or operator of a Group 2 process vent shall recalculate the TOC emission rate for each process vent, as necessary, whenever process changes are made to determine whether the vent is in Group 1 or Group 2. Examples of process changes include, but are not limited to, changes in production capacity, production rate, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph, process changes do not include: process upsets; unintentional, temporary process changes; and changes that are within the range on which the original calculation was based.

(1) The TOC emission rate shall be recalculated based on measurements of vent stream flow rate and TOC as specified in paragraphs (e) and (f) of this section, as applicable, or on best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in paragraph (g) of this section.

(2) Where the recalculated TOC emission rate is greater than 33 kilograms per day for an existing source or greater than 6.8 kilograms per day for a new source, the owner or operator shall submit a report as specified in §63.655(f), (g), or (h) and shall comply with the appropriate provisions in §63.643 by the dates specified in §63.640.

(i) A compliance determination for visible emissions shall be conducted within 150 days of the compliance date using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 63 FR 44141, Aug. 18, 1998; 74 FR 55685, Oct. 28, 2009; 80 FR 75243, Dec. 1, 2015]

§ 63.646 Storage vessel provisions.

Upon a demonstration of compliance with the standards in §63.660 by the compliance dates specified in §63.640(h), the standards in this section shall no longer apply.

(a) Each owner or operator of a Group 1 storage vessel subject to this subpart shall comply with the requirements of §§63.119 through 63.121 except as provided in paragraphs (b) through (l) of this section.

(b) As used in this section, all terms not defined in §63.641 shall have the meaning given them in 40 CFR part 63, subparts A or G. The Group 1 storage vessel definition presented in §63.641 shall apply in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of §63.119 of subpart G of this part.

(1) An owner or operator may use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.

(2) When an owner or operator and the Administrator do not agree on whether the annual average weight percent organic HAP in the stored liquid is above or below 4 percent for a storage vessel at an existing source or above or below 2 percent for a storage vessel at a new source, an appropriate method (based on the type of liquid stored) as published by EPA or a consensus-based standards organization shall be used. Consensus-based standards organizations include, but are not limited to, the following: ASTM International (100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428–B2959, (800) 262–1373, *http://www.astm.org*), the American National Standards Institute (ANSI, 1819 L Street NW., 6th floor, Washington, DC 20036, (202) 293–8020, *http://www.ansi.org*), the American Gas Association (AGA, 400 North Capitol Street NW., 4th Floor, Washington, DC 20001, (202) 824–7000, *http://www.aga.org*), the American Society of Mechanical Engineers (ASME, Three Park Avenue, New York, NY 10016–5990, (800) 843–2763, *http://www.asme.org*), the American Petroleum Institute (API, 1220 L Street NW., Washington, DC 20005–4070, (202) 682–8000, *http://www.api.org*), and the North American Energy Standards Board (NAESB, 801 Travis Street, Suite 1675, Houston, TX 77002, (713) 356–0060, *http://www.naesb.org*).

(c) The following paragraphs do not apply to storage vessels at existing sources subject to this subpart: §63.119 (b)(5), (b)(6), (c)(2), and (d)(2).

(d) References shall apply as specified in paragraphs (d)(1) through (d)(10) of this section.

(1) All references to §63.100(k) of subpart F of this part (or the schedule provisions and the compliance date) shall be replaced with §63.640(h),

(2) All references to April 22, 1994 shall be replaced with August 18, 1995.

(3) All references to December 31, 1992 shall be replaced with July 15, 1994.

(4) All references to the compliance dates specified in §63.100 of subpart F shall be replaced with §63.640 (h) through (m).

(5) All references to §63.150 in §63.119 of subpart G of this part shall be replaced with §63.652.

(6) All references to §63.113(a)(2) of subpart G shall be replaced with §63.643(a)(2) of this subpart.

(7) All references to §63.126(b)(1) of subpart G shall be replaced with §63.422(b) of subpart R of this part.

(8) All references to §63.128(a) of subpart G shall be replaced with §63.425, paragraphs (a) through (c) and (e) through (h) of subpart R of this part.

(9) All references to § 63.139(d)(1) in § 63.120(d)(1)(ii) of subpart G are not applicable. For sources subject to this subpart, such references shall mean that 40 CFR 61.355 is applicable.

(10) All references to § 63.139(c) in § 63.120(d)(1)(ii) of subpart G are not applicable. For sources subject to this subpart, such references shall mean that § 63.647 of this subpart is applicable.

(e) When complying with the inspection requirements of § 63.120 of subpart G of this part, owners and operators of storage vessels at existing sources subject to this subpart are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.

(f) The following paragraphs (f)(1), (f)(2), and (f)(3) of this section apply to Group 1 storage vessels at existing sources:

(1) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.

(2) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(3) Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(g) Failure to perform inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

(h) References in §§ 63.119 through 63.121 to § 63.122(g)(1), § 63.151, and references to initial notification requirements do not apply.

(i) References to the Implementation Plan in § 63.120, paragraphs (d)(2) and (d)(3)(i) shall be replaced with the Notification of Compliance Status report.

(j) References to the Notification of Compliance Status report in § 63.152(b) mean the Notification of Compliance Status required by § 63.655(f).

(k) References to the Periodic Reports in § 63.152(c) mean the Periodic Report required by § 63.655(g).

(l) The State or local permitting authority can waive the notification requirements of §§ 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notifications in § 63.120(a)(6) or § 63.120(b)(10)(iii) for all storage vessels at a refinery or for individual storage vessels on a case-by-case basis.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 62 FR 7939, Feb. 21, 1997; 74 FR 55685, Oct. 28, 2009; 75 FR 37731, June 30, 2010; 80 FR 75243, Dec. 1, 2015]

§ 63.647 Wastewater provisions.

(a) Except as provided in paragraphs (b) and (c) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§ 61.340 through 61.355 of this chapter for each process wastewater stream that meets the definition in § 63.641.

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in the Clean Air Act or in 40 CFR part 61, subpart FF, § 61.341.

(c) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of part 61, subpart FF of this chapter, or the requirements of § 63.670.

(d) Each owner or operator required under subpart FF of 40 CFR part 61 to perform periodic measurement of benzene concentration in wastewater, or to monitor process or control device operating parameters shall operate in a manner consistent with the minimum or maximum (as appropriate) permitted concentration or operating parameter values. Operation of the process, treatment unit, or control device resulting in a measured concentration or operating parameter value outside the permitted limits shall constitute a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in subpart FF of 40 CFR part 61 shall constitute a violation of the standard.

[60 FR 43260, Aug. 18, 1995, as amended at 80 FR 75244, Dec. 1, 2015]

§ 63.648 Equipment leak standards.

(a) Each owner or operator of an existing source subject to the provisions of this subpart shall comply with the provisions of 40 CFR part 60, subpart VV, and paragraph (b) of this section except as provided in paragraphs (a)(1) through (3), and (c) through (j) of this section. Each owner or operator of a new source subject to the provisions of this subpart shall comply with subpart H of this part except as provided in paragraphs (c) through (j) of this section.

(1) For purposes of compliance with this section, the provisions of 40 CFR part 60, subpart VV apply only to equipment in organic HAP service, as defined in § 63.641 of this subpart.

(2) Calculation of percentage leaking equipment components for subpart VV of 40 CFR part 60 may be done on a process unit basis or a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(3) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of part 60, subpart VV of this chapter, or the requirements of § 63.670.

(b) The use of monitoring data generated before August 18, 1995 to qualify for less frequent monitoring of valves and pumps as provided under 40 CFR part 60 subpart VV or subpart H of this part and paragraph (c) of this section (i.e., quarterly or semiannually) is governed by the requirements of paragraphs (b)(1) and (b)(2) of this section.

(1) Monitoring data must meet the test methods and procedures specified in § 60.485(b) of 40 CFR part 60, subpart VV or § 63.180(b)(1) through (b)(5) of subpart H of this part except for minor departures.

(2) Departures from the criteria specified in § 60.485(b) of 40 CFR part 60 subpart VV or § 63.180(b)(1) through (b)(5) of subpart H of this part or from the monitoring frequency specified in subpart VV or in paragraph (c) of this section (such as every 6 weeks instead of monthly or quarterly) are minor and do not significantly affect the quality of the data. An example of a minor departure is monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly). Failure to use a calibrated instrument is not considered a minor departure.

(c) In lieu of complying with the existing source provisions of paragraph (a) in this section, an owner or operator may elect to comply with the requirements of §§ 63.161 through 63.169, 63.171, 63.172, 63.175, 63.176, 63.177, 63.179, and 63.180 except as provided in paragraphs (c)(1) through (12) and (e) through (j) of this section.

(1) The instrument readings that define a leak for light liquid pumps subject to § 63.163 of subpart H of this part and gas/vapor and light liquid valves subject to § 63.168 of subpart H of this part are specified in table 2 of this subpart.

(2) In phase III of the valve standard, the owner or operator may monitor valves for leaks as specified in paragraphs (c)(2)(i) or (c)(2)(ii) of this section.

(i) If the owner or operator does not elect to monitor connectors, then the owner or operator shall monitor valves according to the frequency specified in table 8 of this subpart.

(ii) If an owner or operator elects to monitor connectors according to the provisions of § 63.649, paragraphs (b), (c), or (d), then the owner or operator shall monitor valves at the frequencies specified in table 9 of this subpart.

(3) The owner or operator shall decide no later than the first required monitoring period after the phase I compliance date specified in § 63.640(h) whether to calculate the percentage leaking valves on a process unit basis or on a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(4) The owner or operator shall decide no later than the first monitoring period after the phase III compliance date specified in § 63.640(h) whether to monitor connectors according to the provisions in § 63.649, paragraphs (b), (c), or (d).

(5) Connectors in gas/vapor service or light liquid service are subject to the requirements for connectors in heavy liquid service in § 63.169 of subpart H of

this part (except for the agitator provisions). The leak definition for valves, connectors, and instrumentation systems subject to § 63.169 is 1,000 parts per million.

(6) In phase III of the pump standard, except as provided in paragraph (c)(7) of this section, owners or operators that achieve less than 10 percent of light liquid pumps leaking or three light liquid pumps leaking, whichever is greater, shall monitor light liquid pumps monthly.

(7) Owners or operators that achieve less than 3 percent of light liquid pumps leaking or one light liquid pump leaking, whichever is greater, shall monitor light liquid pumps quarterly.

(8) An owner or operator may make the election described in paragraphs (c)(3) and (c)(4) of this section at any time except that any election to change after the initial election shall be treated as a permit modification according to the terms of part 70 of this chapter.

(9) When complying with the requirements of § 63.168(e)(3)(i), non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and non-repairable. Otherwise, a number of non-repairable valves up to a maximum of 1 percent per year of the total number of valves in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percent leaking valves for subsequent monitoring periods. When the number of non-repairable valves exceeds 3 percent of the total number of valves in organic HAP service, the number of non-repairable valves exceeding 3 percent of the total number shall be included in the calculation of percent leaking valves.

(10) If in phase III of the valve standard any valve is designated as being leakless, the owner or operator has the option of following the provisions of 40 CFR 60.482–7(f). If an owner or operator chooses to comply with the provisions of 40 CFR 60.482–7(f), the valve is exempt from the valve monitoring provisions of § 63.168 of subpart H of this part.

(11) [Reserved]

(12) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of §§ 63.172 and 63.180, or the requirements of § 63.670.

(d) Upon startup of new sources, the owner or operator shall comply with § 63.163(a)(1)(ii) of subpart H of this part for light liquid pumps and § 63.168(a)(1)(ii) of subpart H of this part for gas/vapor and light liquid valves.

(e) For reciprocating pumps in heavy liquid service and agitators in heavy liquid service, owners and operators are not required to comply with the requirements in § 63.169 of subpart H of this part.

(f) Reciprocating pumps in light liquid service are exempt from §§ 63.163 and 60.482 if recasting the distance piece or reciprocating pump replacement is required.

(g) Compressors in hydrogen service are exempt from the requirements of paragraphs (a) and (c) of this section if an owner or operator demonstrates that a compressor is in hydrogen service.

(1) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service.

(2) For a piece of equipment to be considered in hydrogen service, it must be determined that the percentage hydrogen content can be reasonably expected always to exceed 50 percent by volume.

(i) For purposes of determining the percentage hydrogen content in the process fluid that is contained in or contacts a compressor, the owner or operator shall use either:

(A) Procedures that conform to those specified in § 60.593(b)(2) of 40 part 60, subpart GGG.

(B) Engineering judgment to demonstrate that the percentage content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume.

(*J*) When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, the procedures in paragraph (g)(2)(i)(A) of this section shall be used to resolve the disagreement.

(*2*) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only by following the procedures in paragraph (g)(2)(i)(A) of this section.

(h) Each owner or operator of a source subject to the provisions of this subpart must maintain all records for a minimum of 5 years.

(i) Reciprocating compressors are exempt from seal requirements if recasting the distance piece or compressor replacement is required.

(j) Except as specified in paragraph (j)(4) of this section, the owner or operator must comply with the requirements specified in paragraphs (j)(1) and (2) of this section for pressure relief devices, such as relief valves or rupture disks, in organic HAP gas or vapor service instead of the pressure relief device requirements of §60.482–4 of this chapter, §60.482–4a of this chapter, or §63.165, as applicable. Except as specified in paragraphs (j)(4) and (5) of this section, the owner or operator must also comply with the requirements specified in paragraph (j)(3) of this section for all pressure relief devices in organic HAP service.

(1) *Operating requirements.* Except during a pressure release, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 CFR part 60, appendix A–7.

(2) *Pressure release requirements.* For pressure relief devices in organic HAP gas or vapor service, the owner or operator must comply with the applicable requirements in paragraphs (j)(2)(i) through (iii) of this section following a pressure release.

(i) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as specified in §60.485(c) of this chapter, §60.485a(c) of this chapter, or §63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(ii) If the pressure relief device includes a rupture disk, either comply with the requirements in paragraph (j)(2)(i) of this section (not replacing the rupture disk) or install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The owner or operator must conduct instrument monitoring, as specified in §60.485(c) of this chapter, §60.485a(c) of this chapter or §63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(iii) If the pressure relief device consists only of a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The owner or operator may not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced. The owner or operator must conduct instrument monitoring, as specified in §60.485(c) of this chapter, §60.485a(c) of this chapter, or §63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(3) *Pressure release management.* Except as specified in paragraphs (j)(4) and (5) of this section, the owner or operator shall comply with the requirements specified in paragraphs (j)(3)(i) through (v) of this section for all pressure relief devices in organic HAP service no later than January 30, 2019.

(i) The owner or operator must equip each affected pressure relief device with a device(s) or use a monitoring system that is capable of:

(A) Identifying the pressure release;

(B) Recording the time and duration of each pressure release; and

(C) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of

devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(ii) The owner or operator must apply at least three redundant prevention measures to each affected pressure relief device and document these measures. Examples of prevention measures include:

(A) Flow, temperature, liquid level and pressure indicators with deadman switches, monitors, or automatic actuators. Independent, non-duplicative systems within this category count as separate redundant prevention measures.

(B) Documented routine inspection and maintenance programs and/or operator training (maintenance programs and operator training may count as only one redundant prevention measure).

(C) Inherently safer designs or safety instrumentation systems.

(D) Deluge systems.

(E) Staged relief system where initial pressure relief device (with lower set release pressure) discharges to a flare or other closed vent system and control device.

(iii) If any affected pressure relief device releases to atmosphere as a result of a pressure release event, the owner or operator must perform root cause analysis and corrective action analysis according to the requirement in paragraph (j)(6) of this section and implement corrective actions according to the requirements in paragraph (j)(7) of this section. The owner or operator must also calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in § 63.655(g)(10)(iii). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(iv) The owner or operator shall determine the total number of release events that occurred during the calendar year for each affected pressure relief device separately. Prior to June 3, 2024, the owner or operator shall also determine the total number of release events for each pressure relief device for which the root cause analysis concluded that the root cause was a force majeure event, as defined in this subpart.

(v) Except for pressure relief devices described in paragraphs (j)(4) and (5) of this section, the following release events from an affected pressure relief device are a violation of the pressure release management work practice standards:

(A) Any release event for which the root cause of the event was determined to be operator error or poor maintenance.

(B) Prior to June 3, 2024, a second release event not including force majeure events from a single pressure relief device in a 3 calendar year period for the same root cause for the same equipment. On and after June 3, 2024, a second release event from a single pressure relief device in a 3 calendar year period for the same root cause for the same equipment.

(C) Prior to June 3, 2024, a third release event not including force majeure events from a single pressure relief device in a 3 calendar year period for any reason. On and after June 3, 2024, a third release event from a single pressure relief device in a 3 calendar year period for any reason.

(4) *Pressure relief devices routed to a control device.* (i) If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, back into the process or to the fuel gas system, the owner or operator is not required to comply with paragraph (j)(1), (2), or (3) (if applicable) of this section.

(ii) If a pilot-operated pressure relief device is used and the primary release valve is routed through a closed vent system to a control device, back into the process or to the fuel gas system, the owner or operator is required to comply only with paragraphs (j)(1) and (2) of this section for the pilot discharge vent and is not required to comply with paragraph (j)(3) of this section for the pilot-operated pressure relief device.

(iii) If a balanced bellows pressure relief device is used and the primary release valve is routed through a closed vent system to a control device, back

into the process or to the fuel gas system, the owner or operator is required to comply only with paragraphs (j)(1) and (2) of this section for the bonnet vent and is not required to comply with paragraph (j)(3) of this section for the balanced bellows pressure relief device.

(iv) Both the closed vent system and control device (if applicable) referenced in paragraphs (j)(4)(i) through (iii) of this section must meet the requirements of § 63.644. When complying with this paragraph (j)(4), all references to ''Group 1 miscellaneous process vent'' in § 63.644 mean ''pressure relief device.''

(v) If a pressure relief device complying with this paragraph (j)(4) is routed to the fuel gas system, then on and after January 30, 2019, any flares receiving gas from that fuel gas system must be in compliance with § 63.670.

(5) *Pressure relief devices exempted from pressure release management requirements.* The following types of pressure relief devices are not subject to the pressure release management requirements in paragraph (j)(3) of this section.

(i) Pressure relief devices in heavy liquid service, as defined in § 63.641.

(ii) Pressure relief devices that only release material that is liquid at standard conditions (1 atmosphere and 68 degrees Fahrenheit) and that are hard-piped to a controlled drain system (*i.e.*, a drain system meeting the requirements for Group 1 wastewater streams in § 63.647(a)) or piped back to the process or pipeline.

(iii) Thermal expansion relief valves.

(iv) Pressure relief devices designed with a set relief pressure of less than 2.5 psig.

(v) Pressure relief devices that do not have the potential to emit 72 lbs/day or more of VOC based on the valve diameter, the set release pressure, and the equipment contents.

(vi) Pressure relief devices on mobile equipment.

(6) *Root cause analysis and corrective action analysis.* A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a release event. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in paragraphs (j)(6)(i) through (iii) of this section.

(i) You may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices installed on the same equipment to release.

(ii) Prior to June 3, 2024, you may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices to release, regardless of the equipment served, if the root cause is reasonably expected to be a force majeure event, as defined in this subpart.

(iii) Except as provided in paragraphs (j)(6)(i) and (ii) of this section, if more than one pressure relief device has a release during the same time period, an initial root cause analysis shall be conducted separately for each pressure relief device that had a release. If the initial root cause analysis indicates that the release events have the same root cause(s), the initially separate root cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

(7) *Corrective action implementation.* Each owner or operator required to conduct a root cause analysis and corrective action analysis as specified in paragraphs (j)(3)(iii) and (j)(6) of this section shall implement the corrective action(s) identified in the corrective action analysis in accordance with the applicable requirements in paragraphs (j)(7)(i) through (iii) of this section.

(i) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that no corrective action should be implemented, the owner or operator shall record and explain the basis for that conclusion no later than 45 days following the event.

(ii) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, the owner or operator shall develop an implementation

schedule to complete the corrective action(s) as soon as practicable.

(iii) No later than 45 days following the event for which a root cause and corrective action analyses were required, the owner or operator shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 63 FR 44141, Aug. 18, 1998; 80 FR 75244, Dec. 1, 2015; 81 FR 45241, July 13, 2016; 83 FR 60714, Nov. 26, 2018; 85 FR 6082, Feb. 4, 2020; 89 FR 23858, Apr. 4, 2024]

§ 63.649 Alternative means of emission limitation: Connectors in gas/vapor service and light liquid service.

(a) If an owner or operator elects to monitor valves according to the provisions of § 63.648(c)(2)(ii), the owner or operator shall implement one of the connector monitoring programs specified in paragraphs (b), (c), or (d) of this section.

(b) *Random 200 connector alternative.* The owner or operator shall implement a random sampling program for accessible connectors of 2.0 inches nominal diameter or greater. The program does not apply to inaccessible or unsafe-to-monitor connectors, as defined in § 63.174 of subpart H. The sampling program shall be implemented sourcewide.

(1) Within the first 12 months after the phase III compliance date specified in § 63.640(h), a sample of 200 connectors shall be randomly selected and monitored using Method 21 of 40 CFR part 60, appendix A.

(2) The instrument reading that defines a leak is 1,000 parts per million.

(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected except as provided in paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, the connector shall be monitored for leaks within the first 3 months after its repair.

(5) After conducting the initial survey required in paragraph (b)(1) of this section, the owner or operator shall conduct subsequent monitoring of connectors at the frequencies specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall survey a random sample of 200 connectors once every 6 months.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall survey a random sample of 200 connectors once per year.

(iii) If the percentage leaking connectors is 0.5 percent or greater but less than 1.0 percent, the owner or operator shall survey a random sample of 200 connectors once every 2 years.

(iv) If the percentage leaking connectors is less than 0.5 percent, the owner or operator shall survey a random sample of 200 connectors once every 4 years.

(6) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(c) *Connector inspection alternative.* The owner or operator shall implement a program to monitor all accessible connectors in gas/vapor service that are 2.0 inches (nominal diameter) or greater and inspect all accessible connectors in light liquid service that are 2 inches (nominal diameter) or greater as described in paragraphs (c)(1) through (c)(7) of this section. The program does not apply to inaccessible or unsafe-to-monitor connectors.

(1) Within 12 months after the phase III compliance date specified in § 63.640(h), all connectors in gas/vapor service shall be monitored using Method 21 of 40 CFR part 60 appendix A. The instrument reading that defines a leak is 1,000 parts per million.

(2) All connectors in light liquid service shall be inspected for leaks. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected except as provided in

paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, connectors in gas/vapor service shall be monitored for leaks within the first 3 months after repair. Connectors in light liquid service shall be inspected for indications of leaks within the first 3 months after repair. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(5) After conducting the initial survey required in paragraphs (c)(1) and (c)(2) of this section, the owner or operator shall conduct subsequent monitoring at the frequencies specified in paragraphs (c)(5)(i) through (c)(5)(iii) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall monitor or inspect, as applicable, the connectors once per year.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 2 years.

(iii) If the percentage leaking connectors is less than 1.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 4 years.

(6) The percentage leaking connectors shall be calculated for connectors in gas/vapor service and for connectors in light liquid service. The data for the two groups of connectors shall not be pooled for the purpose of determining the percentage leaking connectors.

(i) The percentage leaking connectors shall be calculated as follows:

$$\%\ C_L = [(C_L - C_{AN})/C_t + C_c)] \times 100$$

where:

$\%\ C_L$ = Percentage leaking connectors.

C_L = Number of connectors including nonrepairables, measured at 1,000 parts per million or greater, by Method 21 of 40 CFR part 60, appendix A.

C_{AN} = Number of allowable nonrepairable connectors, as determined by monitoring, not to exceed 3 percent of the total connector population, C_t.

C_t = Total number of monitored connectors, including nonrepairables, in the process unit.

C_c = Optional credit for removed connectors = 0.67 × net number (*i.e.,* the total number of connectors removed minus the total added) of connectors in organic HAP service removed from the process unit after the applicability date set forth in §63.640(h)(3)(iii) for existing process units, and after the date of start-up for new process units. If credits are not taken, then $C_c = 0$.

(ii) Nonrepairable connectors shall be included in the calculation of percentage leaking connectors the first time the connector is identified as leaking and nonrepairable. Otherwise, a number of nonrepairable connectors up to a maximum of 1 percent per year of the total number of connectors in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percentage leaking connectors for subsequent monitoring periods.

(iii) If the number of nonrepairable connectors exceeds 3 percent of the total number of connectors in organic HAP service, the number of nonrepairable connectors exceeding 3 percent of the total number shall be included in the calculation of the percentage leaking connectors.

(7) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(d) *Subpart H program.* The owner or operator shall implement a program to comply with the provisions in §63.174 of this part.

(e) Delay of repair of connectors for which leaks have been detected is allowed if repair is not technically feasible by normal repair techniques without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(1) Delay of repair is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

(2) Delay of repair for connectors is also allowed if:

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are accomplished, the purged material would be collected and destroyed or recovered in a control device.

(f) Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), or (d) of this section if:

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), of this section; or

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(g) The owner or operator shall maintain records to document that the connector monitoring or inspections have been conducted as required and to document repair of leaking connectors as applicable.

[60 FR 43260, Aug. 18, 1995, as amended at 80 FR 75245, Dec. 1, 2015]

§ 63.650 Gasoline loading rack provisions.

(a) Except as provided in paragraphs (b) through (d) of this section, each owner or operator of a Group 1 gasoline loading rack classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a petroleum refinery shall comply with subpart R of this part, §§ 63.421, 63.422(a) through (c) and (e), 63.425(a) through (c) and (e) through (i), 63.427(a) and (b), and 63.428(b), (c), (g)(1), (h)(1) through (3), and (k).

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart R. The § 63.641 definition of ''affected source'' applies under this section.

(c) Gasoline loading racks regulated under this subpart are subject to the compliance dates specified in § 63.640(h).

(d) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of subpart R of this part, or the requirements of § 63.670.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 74 FR 55685, Oct. 28, 2009; 80 FR 75245, Dec. 1, 2015]

§ 63.651 Marine tank vessel loading operation provisions.

(a) Except as provided in paragraphs (b) through (e) of this section, each owner or operator of a marine tank vessel loading operation located at a petroleum refinery shall comply with the requirements of §§ 63.560 through 63.568.

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart Y. The § 63.641 definition of ''affected source'' applies under this section.

(c) The notification reports under § 63.567(b) are not required.

(d) The compliance time of 4 years after promulgation of 40 CFR part 63, subpart Y, does not apply. The compliance time is specified in § 63.640(h)(1).

(e) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of § 63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of subpart Y of this part, or the requirements of § 63.670.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 74 FR 55685, Oct. 28, 2009; 80 FR 75246, Dec. 1, 2015]

§ 63.652 Emissions averaging provisions.

(a) This section applies to owners or operators of existing sources who seek to comply with the emission standard in § 63.642(g) by using emissions averaging according to § 63.642(l) rather than following the provisions of §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651. Existing marine tank vessel loading operations located at the Valdez Marine Terminal source may not comply with the standard by using emissions averaging.

(b) The owner or operator shall develop and submit for approval an Implementation Plan containing all of the information required in § 63.653(d) for all points to be included in an emissions average. The Implementation Plan shall identify all emission points

to be included in the emissions average. This must include any Group 1 emission points to which the reference control technology (defined in § 63.641) is not applied and all other emission points being controlled as part of the average.

(c) The following emission points can be used to generate emissions averaging credits if control was applied after November 15, 1990 and if sufficient information is available to determine the appropriate value of credits for the emission point:

(1) Group 2 emission points;

(2) Group 1 storage vessels, Group 1 wastewater streams, Group 1 gasoline loading racks, Group 1 marine tank vessels, and Group 1 miscellaneous process vents that are controlled by a technology that the Administrator or permitting authority agrees has a higher nominal efficiency than the reference control technology. Information on the nominal efficiencies for such technologies must be submitted and approved as provided in paragraph (i) of this section; and

(3) Emission points from which emissions are reduced by pollution prevention measures. Percentages of reduction for pollution prevention measures shall be determined as specified in paragraph (j) of this section.

(i) For a Group 1 emission point, the pollution prevention measure must reduce emissions more than the reference control technology would have had the reference control technology been applied to the emission point instead of the pollution prevention measure except as provided in paragraph (c)(3)(ii) of this section.

(ii) If a pollution prevention measure is used in conjunction with other controls for a Group 1 emission point, the pollution prevention measure alone does not have to reduce emissions more than the reference control technology, but the combination of the pollution prevention measure and other controls must reduce emissions more than the reference control technology would have had it been applied instead.

(d) The following emission points cannot be used to generate emissions averaging credits:

(1) Emission points already controlled on or before November 15, 1990 unless the level of control is increased after November 15, 1990, in which case credit will be allowed only for the increase in control after November 15, 1990;

(2) Group 1 emission points that are controlled by a reference control technology unless the reference control technology has been approved for use in a different manner and a higher nominal efficiency has been assigned according to the procedures in paragraph (i) of this section. For example, it is not allowable to claim that an internal floating roof meeting only the specifications stated in the reference control technology definition in § 63.641 (i.e., that meets the specifications of § 63.119(b) of subpart G but does not have controlled fittings per § 63.119 (b)(5) and (b)(6) of subpart G) applied to a storage vessel is achieving greater than 95 percent control;

(3) Emission points on shutdown process units. Process units that are shut down cannot be used to generate credits or debits;

(4) Wastewater that is not process wastewater or wastewater streams treated in biological treatment units. These two types of wastewater cannot be used to generate credits or debits. Group 1 wastewater streams cannot be left undercontrolled or uncontrolled to generate debits. For the purposes of this section, the terms ''wastewater'' and ''wastewater stream'' are used to mean process wastewater; and

(5) Emission points controlled to comply with a State or Federal rule other than this subpart, unless the level of control has been increased after November 15, 1990 above what is required by the other State or Federal rule. Only the control above what is required by the other State or Federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and the point is subsequently made subject to a State or Federal rule other than this subpart, the point can continue to generate emissions averaging credit for the purpose of complying with the previously approved average.

(e) For all points included in an emissions average, the owner or operator shall:

(1) Calculate and record monthly debits for all Group 1 emission points that are controlled to a level less stringent than the reference control technology for those emission points. Equations in paragraph (g) of this section shall be used to calculate debits.

(2) Calculate and record monthly credits for all Group 1 or Group 2 emission points that are overcontrolled to compensate for the debits. Equations in paragraph (h) of this section shall be used to calculate credits. Emission points and controls that meet the criteria of paragraph (c) of this section may be included in the credit calculation, whereas those described in paragraph (d) of this section shall not be included.

(3) Demonstrate that annual credits calculated according to paragraph (h) of this section are greater than or equal to debits calculated for the same annual compliance period according to paragraph (g) of this section.

(i) The initial demonstration in the Implementation Plan that credit-generating emission points will be capable of generating sufficient credits to offset the debits from the debit-generating emission points must be made under representative operating conditions.

(ii) After the compliance date, actual operating data will be used for all debit and credit calculations.

(4) Demonstrate that debits calculated for a quarterly (3-month) period according to paragraph (g) of this section are not more than 1.30 times the credits for the same period calculated according to paragraph (h) of this section. Compliance for the quarter shall be determined based on the ratio of credits and debits from that quarter, with 30 percent more debits than credits allowed on a quarterly basis.

(5) Record and report quarterly and annual credits and debits in the Periodic Reports as specified in §63.655(g)(8). Every fourth Periodic Report shall include a certification of compliance with the emissions averaging provisions as required by §63.655(g)(8)(iii).

(f) Debits and credits shall be calculated in accordance with the methods and procedures specified in paragraphs (g) and (h) of this section, respectively, and shall not include emissions from the following:

(1) More than 20 individual emission points. Where pollution prevention measures (as specified in paragraph (j)(1) of this section) are used to control emission points to be included in an emissions average, no more than 25 emission points may be included in the average. For example, if two emission points to be included in an emissions average are controlled by pollution prevention measures, the average may include up to 22 emission points.

(2) [Reserved]

(3) For emission points for which continuous monitors are used, periods of excess emissions as defined in §63.655(g)(6)(i). For these periods, the calculation of monthly credits and debits shall be adjusted as specified in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) No credits would be assigned to the credit-generating emission point.

(ii) Maximum debits would be assigned to the debit-generating emission point.

(iii) The owner or operator may use the procedures in paragraph (l) of this section to demonstrate to the Administrator that full or partial credits or debits should be assigned.

(g) Debits are generated by the difference between the actual emissions from a Group 1 emission point that is uncontrolled or is controlled to a level less stringent than the reference control technology, and the emissions allowed for Group 1 emission point. Debits shall be calculated as follows:

(1) The overall equation for calculating sourcewide debits is:

$$\text{Debits} = \sum_{i=1}^{n}\left(\text{EPV}_{i\text{ACTUAL}} - (0.02)\,\text{EPV}_{iu}\right) + \sum_{i=1}^{n}\left(\text{ES}_{i\text{ACTUAL}} - (0.05)\,\text{ES}_{iu}\right) + \sum_{i=1}^{n}\left(\text{EGLR}_{i\text{ACTUAL}} - \text{EGLR}_{iC}\right) + \sum_{i=1}^{n}\left(\text{EMV}_{i\text{ACTUAL}} - (0.03)\,\text{EMViu}\right)$$

where:

Debits and all terms of the equation are in units of megagrams per month, and

$EPV_{iACTUAL}$ = Emissions from each Group 1 miscellaneous process vent i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(2) of this section.

(0.02) EPV_{iu} = Emissions from each Group 1 miscellaneous process vent i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (g)(2) of this section.

$ES_{iACTUAL}$ = Emissions from each Group 1 storage vessel i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(3) of this section.

(0.05) ES_{iu} = Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (g)(3) of this section.

$EGLR_{iACTUAL}$ = Emissions from each Group 1 gasoline loading rack i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(4) of this section.

$EGLR_{ic}$ = Emissions from each Group 1 gasoline loading rack i if the reference control technology had been applied to the uncontrolled emissions. This is calculated according to paragraph (g)(4) of this section.

EMV_{ACTUAL} = Emissions from each Group 1 marine tank vessel i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(5) of this section.

(0.03) EMV_{iu} = Emissions from each Group 1 marine tank vessel i if the reference control technology had been applied to the uncontrolled emissions calculated according to paragraph (g)(5) of this section.

n = The number of Group 1 emission points being included in the emissions average. The value of n is not necessarily the same for each kind of emission point.

(2) Emissions from miscellaneous process vents shall be calculated as follows:

(i) For purposes of determining miscellaneous process vent stream flow rate, organic HAP concentrations, and temperature, the sampling site shall be after the final product recovery device, if any recovery devices are present; before any control device (for miscellaneous process vents, recovery devices shall not be considered control devices); and before discharge to the atmosphere. Method 1 or 1A of part 60, appendix A shall be used for selection of the sampling site.

(ii) The following equation shall be used for each miscellaneous process vent i to calculate EPV_{iu}:

$$\text{EPV}_{iu} = \left(2.494 \times 10^{-9}\right) Qh \left(\sum_{j=1}^{n} C_j M_j\right)$$

where:

EPV_{iu} = Uncontrolled process vent emission rate from miscellaneous process vent i, megagrams per month.

Q = Vent stream flow rate, dry standard cubic meters per minute, measured using Methods 2, 2A, 2C, or 2D of part 60 appendix A, as appropriate.

h = Monthly hours of operation during which positive flow is present in the vent, hours per month.

C_j = Concentration, parts per million by volume, dry basis, of organic HAP j as measured by Method 18 of part 60 appendix A.

M_j = Molecular weight of organic HAP j, gram per gram-mole.

n = Number of organic HAP's in the miscellaneous process vent stream.

(A) The values of Q, C_j, and M_j shall be determined during a performance test conducted under representative operating conditions. The values of Q, C_j, and M_j shall be established in the Notification of Compliance Status report and must be updated as provided in paragraph (g)(2)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of Q, C_j, and M_j are no longer representative, a new performance test shall be conducted to determine new representative values of Q, C_j, and M_j. These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate $EPV_{iACTUAL}$:

(A) If the vent is not controlled by a control device or pollution prevention measure, $EPV_{iACTUAL} = EPV_{iu}$, where EPV_{iu} is calculated according to the procedures in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the vent is controlled using a control device or a pollution prevention measure achieving less than 98-percent reduction,

$$EPV_{iACTUAL} = EPV_{iu} \times \left(1 - \frac{\text{Percent reduction}}{100\%}\right)$$

(*1*) The percent reduction shall be measured according to the procedures in §63.116 of subpart G if a combustion control device is used. For a flare meeting the criteria in §63.116(a) of subpart G or §63.670, as applicable, or a boiler or process heater meeting the criteria in §63.645(d) or §63.116(b) of subpart G, the percentage of reduction shall be 98 percent. If a noncombustion control device is used, percentage of reduction shall be demonstrated by a performance test at the inlet and outlet of the device, or, if testing is not feasible, by a control design evaluation and documented engineering calculations.

(*2*) For determining debits from miscellaneous process vents, product recovery devices shall not be considered control devices and cannot be assigned a percentage of reduction in calculating $EPV_{iACTUAL}$. The sampling site for measurement of uncontrolled emissions is after the final product recovery device.

(*3*) Procedures for calculating the percentage of reduction of pollution prevention measures are specified in paragraph (j) of this section.

(3) Emissions from storage vessels shall be calculated as specified in §63.150(g)(3) of subpart G.

(4) Emissions from gasoline loading racks shall be calculated as follows:

(i) The following equation shall be used for each gasoline loading rack i to calculate $EGLR_{iu}$:

$$EGLR_{iu} = \left(1.20 \times 10^{-7}\right)\frac{SPMG}{T}$$

where:

$EGLR_{iu}$ = Uncontrolled transfer HAP emission rate from gasoline loading rack i, megagrams per month

S = Saturation factor, dimensionless (see table 33 of subpart G).

P = Weighted average rack partial pressure of organic HAP's transferred at the rack during the month, kilopascals.

M = Weighted average molecular weight of organic HAP's transferred at the gasoline loading rack during the month, gram per gram-mole.

G = Monthly volume of gasoline transferred from gasoline loading rack, liters per month.

T = Weighted rack bulk liquid loading temperature during the month, degrees kelvin (degrees Celsius °C + 273).

(ii) The following equation shall be used for each gasoline loading rack i to calculate the weighted average rack partial pressure:

$$P = \frac{\sum_{1}^{j=n}\left(P_j\right)\left(G_j\right)}{G}$$

where:

P_j = Maximum true vapor pressure of individual organic HAP transferred at the rack, kilopascals.
G = Monthly volume of organic HAP transferred, liters per month, and

$$G = \sum_{1}^{j=n} G_j$$

G_j = Monthly volume of individual organic HAP transferred at the gasoline loading rack, liters per month.
n = Number of organic HAP's transferred at the gasoline loading rack.

(iii) The following equation shall be used for each gasoline loading rack i to calculate the weighted average rack molecular weight:

$$M = \frac{\sum_{1}^{j=n} (M_j)(G_j)}{G}$$

where:
M_j = Molecular weight of individual organic HAP transferred at the rack, gram per gram-mole.
G, G_j, and n are as defined in paragraph (g)(4)(ii) of this section.

(iv) The following equation shall be used for each gasoline loading rack i to calculate the monthly weighted rack bulk liquid loading temperature:

$$T = \frac{\sum_{1}^{j=n} (T_j)(G_j)}{G}$$

T_j = Average annual bulk temperature of individual organic HAP loaded at the gasoline loading rack, kelvin (degrees Celsius °C + 273).
G, G_j, and n are as defined in paragraph (g)(4)(ii) of this section.

(v) The following equation shall be used to calculate $EGLR_{ic}$:

$$EGLR_{ic} = 1 \times 10^{-8} G$$

G is as defined in paragraph (g)(4)(ii) of this section.

(vi) The following procedures and equations shall be used to calculate $EGLR_{iACTUAL}$:

(A) If the gasoline loading rack is not controlled, $EGLR_{iACTUAL} = EGLR_{iu}$, where $EGLR_{iu}$ is calculated using the equations specified in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(B) If the gasoline loading rack is controlled using a control device or a pollution prevention measure not achieving the requirement of less than 10 milligrams of TOC per liter of gasoline loaded,

$$EGLR_{iACTUAL} = EGLR_{iu}\left(\frac{1 - \text{Percent reduction}}{100\%}\right)$$

(*1*) The percent reduction for a control device shall be measured according to the procedures and test methods specified in § 63.128(a) of subpart G. If testing is not feasible, the percentage of reduction shall be determined through a design evaluation according to the procedures specified in § 63.128(h) of subpart G.

(*2*) Procedures for calculating the percentage of reduction for pollution prevention measures are specified in paragraph (j) of this section.

(5) Emissions from marine tank vessel loading shall be calculated as follows:

(i) The following equation shall be used for each marine tank vessel i to calculate EMV_{iu}:

$$EMV_{iu} = \sum_{i=1}^{m} (Q_i)(F_i)(P_i)$$

where:
EMV_{iu} = Uncontrolled marine tank vessel HAP emission rate from marine tank vessel i, megagrams per month.
Q_i = Quantity of commodity loaded (per vessel type), liters.
F_i = Emission factor, megagrams per liter.
P_i = Percent HAP.
m = Number of combinations of commodities and vessel types loaded.

Emission factors shall be based on test data or emission estimation procedures specified in §63.565(l) of subpart Y.

(ii) The following procedures and equations shall be used to calculate $EMV_{iACTUAL}$:

(A) If the marine tank vessel is not controlled, $EMV_{iACTUAL} = EMV_{iu}$, where EMV_{iu} is calculated using the equations specified in paragraph (g)(5)(i) of this section.

(B) If the marine tank vessel is controlled using a control device or a pollution prevention measure achieving less than 97-percent reduction,

$$EMV_{iACTUAL} = EMV_{iu}\left(\frac{1 - \text{Percent reduction}}{100\%}\right)$$

(*1*) The percent reduction for a control device shall be measured according to the procedures and test methods specified in §63.565(d) of subpart Y. If testing is not feasible, the percentage of reduction shall be determined through a design evaluation according to the procedures specified in §63.128(h) of subpart G.

(*2*) Procedures for calculating the percentage of reduction for pollution prevention measures are specified in paragraph (j) of this section.

(h) Credits are generated by the difference between emissions that are allowed for each Group 1 and Group 2 emission point and the actual emissions from a Group 1 or Group 2 emission point that has been controlled after November 15, 1990 to a level more stringent than what is required by this subpart or any other State or Federal rule or statute. Credits shall be calculated as follows:

(1) The overall equation for calculating sourcewide credits is:

$$\begin{aligned}\text{Credits} = {} & D\sum_{i=1}^{n}\left((0.02)\ EPV1_{iu} - EPV1_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(EPV2_{iBASE} - EPV2_{iACTUAL}\right) + \\ & D\sum_{i=1}^{n}\left((0.05)\ ES1_{iu} - ES1_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(ES2_{iBASE} - ES2_{iACTUAL}\right) + \\ & D\sum_{i=1}^{n}\left(\ EGLR_{ic} - EGLRl_{i\,ACTUAL}\right) + D\sum_{i=1}^{m}\left(EGLR2_{iBASE} - EGLR2_{iACTUAL}\right) + \\ & D\sum_{i=1}^{n}\left((0.03)\ EMV1_{\mathbf{iu}} - EMV1_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(EMV2_{iBASE} - EMV2_{iACTUAL}\right) + \\ & D\sum_{i=1}^{n}\left(EWW1_{ic} - EWW1_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(EWW2_{iBASE} - EWW2_{iACTUAL}\right)\end{aligned}$$

where:

Credits and all terms of the equation are in units of megagrams per month, the baseline date is November 15, 1990, and

D = Discount factor = 0.9 for all credit-generating emission points except those controlled by a pollution prevention measure, which will not be discounted.

$EPV1_{iACTUAL}$ = Emissions for each Group 1 miscellaneous process vent i that is controlled to a level more stringent than the reference control technology, calculated

according to paragraph (h)(2) of this section.

(0.02) $EPV1_{iu}$ = Emissions from each Group 1 miscellaneous process vent i if the reference control technology had been applied to the uncontrolled emissions. $EPV1_{iu}$ is calculated according to paragraph (h)(2) of this section.

$EPV2_{iBASE}$ = Emissions from each Group 2 miscellaneous process vent; at the baseline date, as calculated in paragraph (h)(2) of this section.

$EPV2_{iACTUAL}$ = Emissions from each Group 2 miscellaneous process vent that is controlled, calculated according to paragraph (h)(2) of this section.

$ES1_{iACTUAL}$ = Emissions from each Group 1 storage vessel i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(3) of this section.

(0.05) $ES1_{iu}$ = Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions. $ES1_{iu}$ is calculated according to paragraph (h)(3) of this section.

$ES2_{iACTUAL}$ = Emissions from each Group 2 storage vessel i that is controlled, calculated according to paragraph (h)(3) of this section.

$ES2_{iBASE}$ = Emissions from each Group 2 storage vessel i at the baseline date, as calculated in paragraph (h)(3) of this section.

$EGLR1_{iACTUAL}$ = Emissions from each Group 1 gasoline loading rack i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(4) of this section.

$EGLR_{ic}$ = Emissions from each Group 1 gasoline loading rack i if the reference control technology had been applied to the uncontrolled emissions. $EGLR_{iu}$ is calculated according to paragraph (h)(4) of this section.

$EGRL2_{iACTUAL}$ = Emissions from each Group 2 gasoline loading rack i that is controlled, calculated according to paragraph (h)(4) of this section.

$EGLR2_{iBASE}$ = Emissions from each Group 2 gasoline loading rack i at the baseline date, as calculated in paragraph (h)(4) of this section.

$EMV1_{iACTUAL}$ = Emissions from each Group 1 marine tank vessel i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(4) of this section.

(0.03)$EMV1_{iu}$ = Emissions from each Group 1 marine tank vessel i if the reference control technology had been applied to the uncontrolled emissions. $EMV1_{iu}$ is calculated according to paragraph (h)(5) of this section.

$EMV2_{iACTUAL}$ = Emissions from each Group 2 marine tank vessel i that is controlled, calculated according to paragraph (h)(5) of this section.

$EMV2_{iBASE}$ = Emissions from each Group 2 marine tank vessel i at the baseline date, as calculated in paragraph (h)(5) of this section.

$EWW1_{iACTUAL}$ = Emissions from each Group 1 wastewater stream i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(6) of this section.

$EWW1_{ic}$ = Emissions from each Group 1 wastewater stream i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (h)(6) of this section.

$EWW2_{iACTUAL}$ = Emissions from each Group 2 wastewater stream i that is controlled, calculated according to paragraph (h)(6) of this section.

$EWW2_{iBASE}$ = Emissions from each Group 2 wastewater stream i at the baseline date, calculated according to paragraph (h)(6) of this section.

n = Number of Group 1 emission points included in the emissions average. The value of n is not necessarily the same for each kind of emission point.

m = Number of Group 2 emission points included in the emissions average. The value of m is not necessarily the same for each kind of emission point.

(i) For an emission point controlled using a reference control technology, the percentage of reduction for calculating credits shall be no greater than the nominal efficiency associated with the reference control technology, unless a higher nominal efficiency is assigned as specified in paragraph (h)(1)(ii) of this section.

(ii) For an emission point controlled to a level more stringent than the reference control technology, the nominal efficiency for calculating credits shall be assigned as described in paragraph (i) of this section. A reference control technology may be approved for use in a different manner and assigned a higher nominal efficiency according to the procedures in paragraph (i) of this section.

(iii) For an emission point controlled using a pollution prevention measure, the nominal efficiency for calculating credits shall be determined as described in paragraph (j) of this section.

(2) Emissions from process vents shall be determined as follows:

(i) Uncontrolled emissions from miscellaneous process vents, $EPV1_{iu}$, shall be calculated according to the procedures and equation for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(ii) Actual emissions from miscellaneous process vents controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent emission reduction, $EPV1_{iACTUAL}$, shall be calculated according to the following equation:

$$EPV1_{iACTUAL} = EPV1_{iu}\left(1 - \frac{\text{Nominal efficiency}\,\%}{100\%}\right)$$

(iii) The following procedures shall be used to calculate actual emissions from Group 2 process vents, $EPV2_{iACTUAL}$:

(A) For a Group 2 process vent controlled by a control device, a recovery device applied as a pollution prevention project, or a pollution prevention measure, if the control achieves a percentage of reduction less than or equal to a 98 percent reduction,

$$EPV2_{iACTUAL} = EPV2_{iu} \times \left(1 - \frac{\text{Percent reduction}}{100\%}\right)$$

(*1*) $EPV2_{iu}$ shall be calculated according to the equations and procedures for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section except as provided in paragraph (h)(2)(iii)(A)(*3*) of this section.

(*2*) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(2)(iii)(B)(*1*) through (g)(2)(iii)(B)(*3*) of this section except as provided in paragraph (h)(2)(iii)(A)(*4*) of this section.

(*3*) If a recovery device was added as part of a pollution prevention project, $EPV2_{iu}$ shall be calculated prior to that recovery device. The equation for EPV_{iu} in paragraph (g)(2)(ii) of this section shall be used to calculate $EPV2_{iu}$; however, the sampling site for measurement of vent stream flow rate and organic HAP concentration shall be at the inlet of the recovery device.

(*4*) If a recovery device was added as part of a pollution prevention project, the percentage of reduction shall be demonstrated by conducting a performance test at the inlet and outlet of that recovery device.

(B) For a Group 2 process vent controlled using a technology with an approved nominal efficiency greater than a 98 percent or a pollution prevention measure achieving greater than 98 percent reduction,

$$EPV2_{iACTUAL} = EPV2_{iu}\left(1 - \frac{\text{Nominal efficiency}\,\%}{100\%}\right)$$

(iv) Emissions from Group 2 process vents at baseline, $EPV2_{iBASE}$, shall be calculated as follows:

(A) If the process vent was uncontrolled on November 15, 1990, $EPV2_{iBASE} = EPV2_{iu}$, and shall be calculated according to the procedures and equation

for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the process vent was controlled on November 15, 1990,

$$EPV2_{BASE} = EPV2_{iu}\left(1 - \frac{\text{Percent reduction}\,\%}{100\%}\right)$$

where $EPV2_{iu}$ is calculated according to the procedures and equation for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section. The percentage of reduction shall be calculated according to the procedures specified in paragraphs (g)(2)(iii)(B)(*1*) through (g)(2)(iii)(B)(*3*) of this section.

(C) If a recovery device was added to a process vent as part of a pollution prevention project initiated after November 15, 1990, $EPV2_{iBASE} = EPV2_{iu}$, where $EPV2_{iu}$ is calculated according to paragraph (h)(2)(iii)(A)(*3*) of this section.

(3) Emissions from storage vessels shall be determined as specified in §63.150(h)(3) of subpart G, except as follows:

(i) For storage vessels complying with §63.646:

(A) All references to §63.119(b) in §63.150(h)(3) of subpart G shall be replaced with: §63.119(b) or §63.119(b) except for §63.119(b)(5) and (6).

(B) All references to §63.119(c) in §63.150(h)(3) of subpart G shall be replaced with: §63.119(c) or §63.119(c) except for §63.119(c)(2).

(C) All references to §63.119(d) in §63.150(h)(3) of subpart G shall be replaced with: §63.119(d) or §63.119(d) except for §63.119(d)(2).

(ii) For storage vessels complying with §63.660:

(A) Section 63.1063(a)(1)(i), (a)(2), and (b) or §63.1063(a)(1)(i) and (b) shall apply instead of §63.119(b) in §63.150(h)(3) of subpart G.

(B) Section 63.1063(a)(1)(ii), (a)(2), and (b) shall apply instead of §63.119(c) in §63.150(h)(3) of subpart G.

(C) Section 63.1063(a)(1)(i), (a)(2), and (b) or §63.1063(a)(1)(i) and (b) shall apply instead of §63.119(d) in §63.150(h)(3) of subpart G.

(4) Emissions from gasoline loading racks shall be determined as follows:

(i) Uncontrolled emissions from Group 1 gasoline loading racks, $EGLR1_{iu}$, shall be calculated according to the procedures and equations for $EGLR_{iu}$ as described in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(ii) Emissions from Group 1 gasoline loading racks if the reference control technology had been applied, $EGLR_{ic}$, shall be calculated according to the procedures and equations in paragraph (g)(4)(v) of this section.

(iii) Actual emissions from Group 1 gasoline loading racks controlled to less than 10 milligrams of TOC per liter of gasoline loaded; $EGLR_{iACTUAL}$, shall be calculated according to the following equation:

$$EGLR1_{iACTUAL} = EGLR1_{iu}\left(1 - \frac{\text{Nominal efficiency}}{100\%}\right)$$

(iv) The following procedures shall be used to calculate actual emissions from Group 2 gasoline loading racks, $EGLR2_{iACTUAL}$:

(A) For a Group 2 gasoline loading rack controlled by a control device or a pollution prevention measure achieving emissions reduction but where emissions are greater than the 10 milligrams of TOC per liter of gasoline loaded requirement,

$$EGLR2_{iACTUAL} = EGLR2_{iu}\left(1 - \frac{\text{Percent reduction}}{100\%}\right)$$

(*1*) $EGLR2_{iu}$ shall be calculated according to the equations and procedures for $EGLR_{iu}$ in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(*2*) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(4)(vi)(B)(*1*) and (g)(4)(vi)(B)(*2*) of this section.

(B) For a Group 2 gasoline loading rack controlled by using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than a 98-percent reduction,

$$EGLR2_{iACTUAL} = EGLR2_{iu}\left(1 - \frac{\text{Nominal efficiency}}{100\%}\right)$$

(v) Emissions from Group 2 gasoline loading racks at baseline, $EGLR2_{iBASE}$, shall be calculated as follows:

(A) If the gasoline loading rack was uncontrolled on November 15, 1990, $EGLR2_{iBASE} = EGLR2_{iu}$, and shall be calculated according to the procedures and equations for $EGLR_{iu}$ in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(B) If the gasoline loading rack was controlled on November 15, 1990,

$$EGLR2_{iBASE} = EGLR2_{iu}\left(1 - \frac{\text{Percent reduction}}{100\%}\right)$$

where $EGLR2_{iu}$ is calculated according to the procedures and equations for $EGLR_{iu}$ in paragraphs (g)(4)(i) through (g)(4)(iv) of this section. Percentage of reduction shall be calculated according to the procedures in paragraphs (g)(4)(vi)(B)(*1*) and (g)(4)(vi)(B)(*2*) of this section.

(5) Emissions from marine tank vessels shall be determined as follows:

(i) Uncontrolled emissions from Group 1 marine tank vessels, $EMV1_{iu}$, shall be calculated according to the procedures and equations for EMV_{iu} as described in paragraph (g)(5)(i) of this section.

(ii) Actual emissions from Group 1 marine tank vessels controlled using a technology or pollution prevention measure with an approved nominal efficiency greater than 97 percent, $EMV_{iACTUAL}$, shall be calculated according to the following equation:

$$EMV1_{iACTUAL} = EMV1_{iu}\left(1 - \frac{\text{Nominal efficiency}}{100\%}\right)$$

(iii) The following procedures shall be used to calculate actual emissions from Group 2 marine tank vessels, $EMV2_{iACTUAL}$:

(A) For a Group 2 marine tank vessel controlled by a control device or a pollution prevention measure achieving a

percentage of reduction less than or equal to 97 percent reduction,

$$EMV2_{iACTUAL} = EMV2_{iu}\left(1 - \frac{\text{Percent reduction}}{100\%}\right)$$

(*1*) $EMV2_{iu}$ shall be calculated according to the equations and procedures for EMV_{iu} in paragraph (g)(5)(i) of this section.

(*2*) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(5)(ii)(B)(*1*) and (g)(5)(ii)(B)(*2*) of this section.

(B) For a Group 2 marine tank vessel controlled using a technology or a pollution prevention measure with an approved nominal efficiency greater than 97 percent,

$$EMV2_{iACTUAL} = EMV2_{iu}\left(1 - \frac{\text{Nominal efficiency}}{100\%}\right)$$

(iv) Emissions from Group 2 marine tank vessels at baseline, $EMV2_{iBASE}$, shall be calculated as follows:

(A) If the marine terminal was uncontrolled on November 15, 1990, $EMV2_{iBASE}$ equals $EMV2_{iu}$, and shall be calculated according to the procedures and equations for EMV_{iu} in paragraph (g)(5)(i) of this section.

(B) If the marine tank vessel was controlled on November 15, 1990,

$$EMV2_{iBASE} = EMV2_{iu}\left(1 - \frac{\text{Percent reduction}}{100\%}\right)$$

where $EMV2_{iu}$ is calculated according to the procedures and equations for EMV_{iu} in paragraph (g)(5)(i) of this section. Percentage of reduction shall be calculated according to the procedures in paragraphs (g)(5)(ii)(B)(*1*) and (g)(5)(ii)(B)(*2*) of this section.

(6) Emissions from wastewater shall be determined as follows:

(i) For purposes of paragraphs (h)(4)(ii) through (h)(4)(vi) of this section, the following terms will have the meaning given them in paragraphs (h)(6)(i)(A) through (h)(6)(i)(C) of this section.

(A) *Correctly suppressed* means that a wastewater stream is being managed according to the requirements of §§ 61.343 through 61.347 or § 61.342(c)(1)(iii) of 40 CFR part 61, subpart FF, as applicable, and the emissions from the waste management units subject to those requirements are routed to a control device that reduces HAP emissions by 95 percent or greater.

(B) *Treatment process* has the meaning given in § 61.341 of 40 CFR part 61, subpart FF except that it does not include biological treatment units.

(C) *Vapor control device* means the control device that receives emissions vented from a treatment process or treatment processes.

(ii) The following equation shall be used for each wastewater stream i to calculate EWW_{ic}:

$$EWW_{ic} = \left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left(1 - Fr_m\right) Fe_m HAP_{im} + (0.05)\left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left(Fr_m HAP_{im}\right)$$

where:

EWW_{ic} = Monthly wastewater stream emission rate if wastewater stream i were controlled by the reference control technology, megagrams per month.

Q_i = Average flow rate for wastewater stream i, liters per minute.

H_i = Number of hours during the month that wastewater stream i was generated, hours per month.

Fr_m = Fraction removed of organic HAP m in wastewater, from table 7 of this subpart, dimensionless.

Fe_m = Fraction emitted of organic HAP m in wastewater from table 7 of this subpart, dimensionless.

s = Total number of organic HAP's in wastewater stream i.

HAP_{im} = Average concentration of organic HAP m in wastewater stream i, parts per million by weight.

(A) HAP_{im} shall be determined for the point of generation or at a location downstream of the point of generation. Wastewater samples shall be collected using the sampling procedures specified in Method 25D of 40 CFR part 60, appendix A. Where feasible, samples shall be taken from an enclosed pipe prior to the wastewater being exposed to the atmosphere. When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of organic HAP's prior to sampling. The samples collected may be analyzed by either of the following procedures:

(*1*) A test method or results from a test method that measures organic HAP concentrations in the wastewater, and that has been validated pursuant to section 5.1 or 5.3 of Method 301 of appendix A of this part may be used; or

(*2*) Method 305 of appendix A of this part may be used to determine C_{im}, the average volatile organic HAP concentration of organic HAP m in wastewater stream i, and then HAP_{im} may be calculated using the following equation: $HAP_{im} = C_{im}/Fm_m$, where Fm_m for organic HAP m is obtained from table 7 of this subpart.

(B) Values for Q_i, HAP_{im}, and C_{im} shall be determined during a performance test conducted under representative conditions. The average value obtained from three test runs shall be used. The values of Q_i, HAP_{im}, and C_{im} shall be established in the Notification of Compliance Status report and must be updated as provided in paragraph (h)(6)(i)(C) of this section.

(C) If there is a change to the process or operation such that the previously measured values of Q_i, HAP_{im}, and C_{im} are no longer representative, a new performance test shall be conducted to determine new representative values of Q_i, HAP_{im}, and C_{im}. These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following equations shall be used to calculate $EWW1_{iACTUAL}$ for each Group 1 wastewater stream i that is correctly suppressed and is treated to a level more stringent than the reference control technology.

(A) If the Group 1 wastewater stream i is controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually speciated HAP that is greater than that specified in table 7 of this subpart, and the vapor control device achieves a percentage of reduction equal to 95 percent, the following equation shall be used:

$$EWW1_{iACTUAL} = \left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left[Fe_m HAP_{im}\left(1 - PR_{im}\right)\right] + 0.05\left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left[HAP_{im} PR_{im}\right]$$

Where:

$EWW_{iACTUAL}$ = Monthly wastewater stream emission rate if wastewater stream i is

treated to a level more stringent than the reference control technology, megagrams per month.

PR_{im} = The efficiency of the treatment process, or series of treatment processes, that treat wastewater stream i in reducing the emission potential of organic HAP m in wastewater, dimensionless, as calculated by:

$$PR_{im} = \frac{HAP_{im\text{-}in} - HAP_{im\text{-}out}}{HAP_{im\text{-}in}}$$

Where:

$HAP_{im\text{-}in}$ = Average concentration of organic HAP m, parts per million by weight, as defined and determined according to paragraph (h)(6)(ii)(A) of this section, in the wastewater entering the first treatment process in the series.

$HAP_{im\text{-}out}$ = Average concentration of organic HAP m, parts per million by weight, as defined and determined according to paragraph (h)(6)(ii)(A) of this section, in the wastewater exiting the last treatment process in the series.

All other terms are as defined and determined in paragraph (h)(6)(ii) of this section.

(B) If the Group 1 wastewater stream i is not controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually speciated HAP that is greater than that specified in table 7 of this subpart, but the vapor control device has an approved nominal efficiency greater than 95 percent, the following equation shall be used:

$$EWW1_{iACTUAL} = \left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left[Fe_m HAP_{im}\left(1 - A_m\right)\right] + \left(1 - \frac{\text{Nominal efficiency \%}}{100}\right)\left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left[HAP_{im} A_m\right]$$

Where:

Nominal efficiency = Approved reduction efficiency of the vapor control device, dimensionless, as determined according to the procedures in § 63.652(i).

A_m = The efficiency of the treatment process, or series of treatment processes, that treat wastewater stream i in reducing the emission potential of organic HAP m in wastewater, dimensionless.

All other terms are as defined and determined in paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(*1*) If a steam stripper meeting the specifications in the definition of reference control technology for wastewater is used, A_m shall be equal to the value of Fr_m given in table 7 of this subpart.

(*2*) If an alternative control device is used, the percentage of reduction must be determined using the equation and methods specified in paragraph (h)(6)(iii)(A) of this section for determining PR_{im}. If the value of PR_{im} is greater than or equal to the value of Fr_m given in table 7 of this subpart, then A_m equals Fr_m unless a higher nominal efficiency has been approved. If a higher nominal efficiency has been approved for the treatment process, the owner or operator shall determine $EWW1_{iACTUAL}$ according to paragraph (h)(6)(iii)(B) of this section rather than paragraph (h)(6)(iii)(A) of this section. If PR_{im} is less than the value of FR_m given in table 7 of this subpart, emissions averaging shall not be used for this emission point.

(C) If the Group 1 wastewater stream i is controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually speciated hazardous air pollutant that is greater than that specified in table 7 of this subpart, and the vapor control device has an approved nominal efficiency greater than 95 percent, the following equation shall be used:

$$EWW1_{iACTUAL} = \left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left[Fe_m HAP_{im}\left(1 - PR_{im}\right)\right] + \left(1 - \frac{\text{Nominal efficiency \%}}{100}\right)\left(6.0*10^{-8}\right) Q_i H_i \sum_{m=1}^{s} \left[HAP_{im} PR_{im}\right]$$

where all terms are as defined and determined in paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(iv) The following equation shall be used to calculate $EWW2_{iBASE}$ for each Group 2 wastewater stream i that on November 15, 1990 was not correctly suppressed or was correctly suppressed but not treated:

$$EWW2_{iBASE} = \left(6.0 \times 10^{-8}\right) Q_i \, H_i \sum_{m=1}^{s} Fe_m HAP_{im}$$

Where:

$EWW2_{iBASE}$ = Monthly wastewater stream emission rate if wastewater stream i is not correctly suppressed, megagrams per month.

Q_i, H_i, s, Fe_m, and HAP_{im} are as defined and determined according to paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(v) The following equation shall be used to calculate $EWW2_{iBASE}$ for each Group 2 wastewater stream i on November 15, 1990 was correctly suppressed. $EWW2_{iBASE}$ shall be calculated as if the control methods being used on November 15, 1990 are in place and any control methods applied after November 15, 1990 are ignored. However, values for the parameters in the equation shall be representative of present production levels and stream properties.

$$EWW2_{iBASE} = \left(6.0 * 10^{-8}\right) Q_i \, H_i \sum_{m=1}^{s} \left[Fe_m HAP_{im}\left(1 - PR_{im}\right)\right] + \left(1 - \frac{R_i}{100\%}\right)\left(6.0 * 10^{-8}\right) Q_i \, H_i \sum_{m=1}^{s} \left[HAP_{im} PR_{im}\right]$$

where R_i is calculated according to paragraph (h)(6)(vii) of this section and all other terms are as defined and determined according to paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(vi) For Group 2 wastewater streams that are correctly suppressed, $EWW2_{iACTUAL}$ shall be calculated according to the equation for $EWW2_{iBASE}$ in paragraph (h)(6)(v) of this section. $EWW2_{iACTUAL}$ shall be calculated with all control methods in place accounted for.

(vii) The reduction efficiency, R_i, of the vapor control device shall be demonstrated according to the following procedures:

(A) Sampling sites shall be selected using Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate.

(B) The mass flow rate of organic compounds entering and exiting the control device shall be determined as follows:

(*1*) The time period for the test shall not be less than 3 hours during which at least three runs are conducted.

(*2*) A run shall consist of a 1-hour period during the test. For each run:

(*i*) The volume exhausted shall be determined using Methods 2, 2A, 2C, or 2D of 40 CFR part 60 appendix A, as appropriate;

(*ii*) The organic concentration in the vent stream entering and exiting the control device shall be determined using Method 18 of 40 CFR part 60, appendix A. Alternatively, any other test method validated according to the procedures in Method 301 of appendix A of this part may be used.

(*3*) The mass flow rate of organic compounds entering and exiting the control device during each run shall be calculated as follows:

$$E_a = \frac{0.0416}{10^6 \times m}\left[\sum_{p=1}^{m} V_{ap}\left(\sum_{p=1}^{n} C_{aip} MW_i\right)\right]$$

$$E_b = \frac{0.0416}{10^6 \times m}\left[\sum_{p=1}^{m} V_{bp}\left(\sum_{p=1}^{n} C_{bip} MW_i\right)\right]$$

Where:

E_a = Mass flow rate of organic compounds exiting the control device, kilograms per hour.

E_b = Mass flow rate of organic compounds entering the control device, kilograms per hour.

V_{ap} = Average volumetric flow rate of vent stream exiting the control device during run p at standards conditions, cubic meters per hour.

V_{bp} = Average volumetric flow rate of vent stream entering the control device during run p at standards conditions, cubic meters per hour.

p = Run.

m = Number of runs.

C_{aip} = Concentration of organic compound i measured in the vent stream exiting the control device during run p as determined by Method 18 of 40 CFR part 60 appendix A, parts per million by volume on a dry basis.

C_{bip} = Concentration of organic compound i measured in the vent stream entering the control device during run p as determined by Method 18 of 40 CFR part 60, appendix A, parts per million by volume on a dry basis.

MW_i = Molecular weight of organic compound i in the vent stream, kilograms per kilogram-mole.

n = Number of organic compounds in the vent stream.

0.0416 = Conversion factor for molar volume, kilograms-mole per cubic meter at 293 kelvin and 760 millimeters mercury absolute.

(C) The organic reduction efficiency for the control device shall be calculated as follows:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

Where:

R = Total organic reduction efficiency for the control device, percentage.

E_b = Mass flow rate of organic compounds entering the control device, kilograms per hour.

E_a = Mass flow rate of organic compounds exiting the control device, kilograms per hour.

(i) The following procedures shall be followed to establish nominal efficiencies. The procedures in paragraphs (i)(1) through (i)(6) of this section shall be followed for control technologies that are different in use or design from the reference control technologies and achieve greater percentages of reduction than the percentages of efficiency assigned to the reference control technologies in § 63.641.

(1) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology, and the different control technology will be used in more than three applications at a single plant site, the owner or operator shall submit the information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section to the Administrator in writing:

(i) Emission stream characteristics of each emission point to which the control technology is or will be applied including the kind of emission point, flow, organic HAP concentration, and all other stream characteristics necessary to design the control technology or determine its performance;

(ii) Description of the control technology including design specifications;

(iii) Documentation demonstrating to the Administrator's satisfaction the control efficiency of the control technology. This may include performance test data collected using an appropriate EPA method or any other method validated according to Method 301 of appendix A of this part. If it is infeasible to obtain test data, documentation may include a design evaluation and calculations. The engineering basis of the calculation procedures and all inputs and assumptions made in the calculations shall be documented; and

(iv) A description of the parameter or parameters to be monitored to ensure that the control technology will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) The Administrator shall determine within 120 calendar days whether an application presents sufficient information to determine nominal efficiency. The Administrator reserves the right to request specific data in addition to the items listed in paragraph (i)(1) of this section.

(3) The Administrator shall determine within 120 calendar days of the submittal of sufficient data whether a control technology shall have a nominal efficiency and the level of that

nominal efficiency. If, in the Administrator's judgment, the control technology achieves a level of emission reduction greater than the reference control technology for a particular kind of emission point, the Administrator will publish a FEDERAL REGISTER notice establishing a nominal efficiency for the control technology.

(4) The Administrator may grant conditional permission to take emission credits for use of the control technology on requirements that may be necessary to ensure operation and maintenance to achieve the specified nominal efficiency.

(5) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology and the different control technology will be used in no more than three applications at a single plant site, the information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this section can be submitted to the permitting authority for the source for approval instead of the Administrator.

(i) In these instances, use and conditions for use of the control technology can be approved by the permitting authority. The permitting authority shall follow the procedures specified in paragraphs (i)(2) through (i)(4) of this section except that, in these instances, a FEDERAL REGISTER notice is not required to establish the nominal efficiency for the different technology.

(ii) If, in reviewing the submittal, the permitting authority believes the control technology has broad applicability for use by other sources, the permitting authority shall submit the information provided in the application to the Director of the EPA Office of Air Quality Planning and Standards. The Administrator shall review the technology for broad applicability and may publish a FEDERAL REGISTER notice; however, this review shall not affect the permitting authority's approval of the nominal efficiency of the control technology for the specific application.

(6) If, in reviewing an application for a control technology for an emission point, the Administrator or permitting authority determines the control technology is not different in use or design from the reference control technology, the Administrator or permitting authority shall deny the application.

(j) The following procedures shall be used for calculating the efficiency (percentage of reduction) of pollution prevention measures:

(1) A pollution prevention measure is any practice that meets the criteria of paragraphs (j)(1)(i) and (j)(1)(ii) of this section.

(i) A pollution prevention measure is any practice that results in a lesser quantity of organic HAP emissions per unit of product released to the atmosphere prior to out-of-process recycling, treatment, or control of emissions while the same product is produced.

(ii) Pollution prevention measures may include: Substitution of feedstocks that reduce HAP emissions, alterations to the production process to reduce the volume of materials released to the environment, equipment modifications; housekeeping measures, and in-process recycling that returns waste materials directly to production as raw materials. Production cutbacks do not qualify as pollution prevention.

(2) The emission reduction efficiency of pollution prevention measures implemented after November 15, 1990 can be used in calculating the actual emissions from an emission point in the debit and credit equations in paragraphs (g) and (h) of this section.

(i) For pollution prevention measures, the percentage of reduction used in the equations in paragraphs (g)(2) and (g)(3) of this section and paragraphs (h)(2) through (h)(4) of this section is the difference in percentage between the monthly organic HAP emissions for each emission point after the pollution prevention measure for the most recent month versus monthly emissions from the same emission point before the pollution prevention measure, adjusted by the volume of product produced during the two monthly periods.

(ii) The following equation shall be used to calculate the percentage of reduction of a pollution prevention measure for each emission point.

$$\text{Percent reduction} = \frac{E_B - \frac{\left(E_{pp} \times P_B\right)}{P_{pp}}}{E_B} \times 100\%$$

Where:

Percent reduction = Efficiency of pollution prevention measure (percentage of organic HAP reduction).

E_B = Monthly emissions before the pollution prevention measure, megagrams per month, determined as specified in paragraphs (j)(2)(ii)(A), (j)(2)(ii)(B), and (j)(2)(ii)(C) of this section.

E_{pp} = Monthly emissions after the pollution prevention measure, megagrams per month, as determined for the most recent month, determined as specified in paragraphs (j)(2)(ii)(D) or (j)(2)(ii)(E) of this section.

P_B = Monthly production before the pollution prevention measure, megagrams per month, during the same period over which E_B is calculated.

P_{pp} = Monthly production after the pollution prevention measure, megagrams per month, as determined for the most recent month.

(A) The monthly emissions before the pollution prevention measure, E_B, shall be determined in a manner consistent with the equations and procedures in paragraphs (g)(2), (g)(3), (g)(4), and (g)(5) of this section for miscellaneous process vents, storage vessels, gasoline loading racks, and marine tank vessels.

(B) For wastewater, E_B shall be calculated as follows:

$$E_B = \sum_{i=1}^{n} \left[\left(6.0 * 10^{-8}\right) Q_{Bi} \, H_{Bi} \sum_{m=1}^{s} Fe_m HAP_{Bim} \right]$$

where:

n = Number of wastewater streams.

Q_{Bi} = Average flow rate for wastewater stream i before the pollution prevention measure, liters per minute.

H_{Bi} = Number of hours per month that wastewater stream i was discharged before the pollution prevention measure, hours per month.

s = Total number of organic HAP's in wastewater stream i.

Fe_m = Fraction emitted of organic HAP m in wastewater from table 7 of this subpart, dimensionless.

HAP_{Bim} = Average concentration of organic HAP m in wastewater stream i, defined and determined according to paragraph (h)(6)(ii)(A)(*2*) of this section, before the pollution prevention measure, parts per million by weight, as measured before the implementation of the pollution measure.

(C) If the pollution prevention measure was implemented prior to July 14, 1994, records may be used to determine E_B.

(D) The monthly emissions after the pollution prevention measure, E_{pp}, may be determined during a performance test or by a design evaluation and documented engineering calculations. Once an emissions-to-production ratio has been established, the ratio can be used to estimate monthly emissions from monthly production records.

(E) For wastewater, E_{pp} shall be calculated using the following equation:

$$E_{pp} = \sum_{i=1}^{n} \left[\left(6.0 * 10^{-8}\right) Q_{ppi} \, H_{ppi} \sum_{m=1}^{s} Fe_m HAP_{ppim} \right]$$

where n, Q, H, s, Fe_m, and HAP are defined and determined as described in paragraph (j)(2)(ii)(B) of this section except that Q_{ppi}, H_{ppi}, and HAP_{ppim} shall be determined after the pollution prevention measure has been implemented.

(iii) All equations, calculations, test procedures, test results, and other information used to determine the percentage of reduction achieved by a pollution prevention measure for each emission point shall be fully documented.

(iv) The same pollution prevention measure may reduce emissions from multiple emission points. In such cases, the percentage of reduction in emissions for each emission point must be calculated.

(v) For the purposes of the equations in paragraphs (h)(2) through (h)(6) of this section used to calculate credits for emission points controlled more stringently than the reference control technology, the nominal efficiency of a pollution prevention measure is equivalent to the percentage of reduction of the pollution prevention measure. When a pollution prevention measure is used, the owner or operator of a source is not required to apply to the Administrator for a nominal efficiency and is not subject to paragraph (i) of this section.

(k) The owner or operator shall demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the State or local permitting authority, greater risk to human health or the environment than if the emission points were controlled according to the provisions in §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as applicable.

(1) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the State or local permitting authority.

(i) The State or local permitting authority may require owners and operators to use specific methodologies and procedures for making a hazard or risk determination.

(ii) The demonstration and approval of hazard or risk equivalency may be made according to any guidance that the EPA makes available for use.

(2) Owners and operators shall provide documentation demonstrating the hazard or risk equivalency of their proposed emissions average in their Implementation Plan.

(3) An emissions averaging plan that does not demonstrate an equivalent or lower hazard or risk to the satisfaction of the State or local permitting authority shall not be approved. The State or local permitting authority may require such adjustments to the emissions averaging plan as are necessary in order to ensure that the average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as applicable.

(4) A hazard or risk equivalency demonstration shall:

(i) Be a quantitative, bona fide chemical hazard or risk assessment;

(ii) Account for differences in chemical hazard or risk to human health or the environment; and

(iii) Meet any requirements set by the State or local permitting authority for such demonstrations.

(l) For periods of excess emissions, an owner or operator may request that the provisions of paragraphs (l)(1) through (l)(4) of this section be followed instead of the procedures in paragraphs (f)(3)(i) and (f)(3)(ii) of this section.

(1) The owner or operator shall notify the Administrator of excess emissions in the Periodic Reports as required in § 63.655(g)(6).

(2) The owner or operator shall demonstrate that other types of monitoring data or engineering calculations are appropriate to establish that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits. This demonstration shall be made to the Administrator's satisfaction, and the Administrator may establish procedures for demonstrating compliance that are acceptable.

(3) The owner or operator shall provide documentation of the period of excess emissions and the other type of monitoring data or engineering calculations to be used to demonstrate

that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits.

(4) The Administrator may assign full or partial credit and debits upon review of the information provided.

[60 FR 43260, Aug. 18, 1995; 60 FR 49976, Sept. 27, 1995; 61 FR 7051, Feb. 23, 1996, as amended at 61 FR 29881, June 12, 1996; 61 FR 33799, June 28, 1996; 74 FR 55686, Oct. 28, 2009; 80 FR 75246, Dec. 1, 2015]

§ 63.653 Monitoring, recordkeeping, and implementation plan for emissions averaging.

(a) For each emission point included in an emissions average, the owner or operator shall perform testing, monitoring, recordkeeping, and reporting equivalent to that required for Group 1 emission points complying with §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as applicable. The specific requirements for miscellaneous process vents, storage vessels, wastewater, gasoline loading racks, and marine tank vessels are identified in paragraphs (a)(1) through (7) of this section.

(1) The source shall implement the following testing, monitoring, recordkeeping, and reporting procedures for each miscellaneous process vent equipped with a flare, incinerator, boiler, or process heater:

(i) Conduct initial performance tests to determine the percentage of reduction as specified in § 63.645 of this subpart and § 63.116 of subpart G; and

(ii) Monitor the operating parameters specified in § 63.644, as appropriate for the specific control device.

(2) The source shall implement the following procedures for each miscellaneous process vent, equipped with a carbon adsorber, absorber, or condenser but not equipped with a control device:

(i) Determine the flow rate and organic HAP concentration using the methods specified in § 63.115 (a)(1) and (a)(2), § 63.115 (b)(1) and (b)(2), and § 63.115(c)(3) of subpart G; and

(ii) Monitor the operating parameters specified in § 63.114 of subpart G, as appropriate for the specific recovery device.

(3) The source shall implement the following procedures for each storage vessel controlled with an internal floating roof, external roof, or a closed vent system with a control device, as appropriate to the control technique:

(i) Perform the monitoring or inspection procedures in § 63.646 and either § 63.120 of subpart G or § 63.1063 of subpart WW, as applicable; and

(ii) For closed vent systems with control devices, conduct an initial design evaluation as specified in § 63.646 and either § 63.120(d) of subpart G or § 63.985(b) of subpart SS, as applicable.

(4) For each gasoline loading rack that is controlled, perform the testing and monitoring procedures specified in §§ 63.425 and 63.427 of subpart R of this part except § 63.425(d) or § 63.427(c).

(5) For each marine tank vessel that is controlled, perform the compliance, monitoring, and performance testing, procedures specified in §§ 63.563, 63.564, and 63.565 of subpart Y of this part.

(6) The source shall implement the following procedures for wastewater emission points, as appropriate to the control techniques:

(i) For wastewater treatment processes, conduct tests as specified in § 61.355 of subpart FF of part 60;

(ii) Conduct inspections and monitoring as specified in §§ 61.343 through 61.349 and § 61.354 of 40 CFR part 61, subpart FF.

(7) If an emission point in an emissions average is controlled using a pollution prevention measure or a device or technique for which no monitoring parameters or inspection procedures are specified in §§ 63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as applicable, the owner or operator shall establish a site-specific monitoring parameter and shall submit the information specified in § 63.655(h)(4) in the Implementation Plan.

(b) Records of all information required to calculate emission debits and credits and records required by § 63.655 shall be retained for 5 years.

(c) Notifications of Compliance Status report, Periodic Reports, and other reports shall be submitted as required by § 63.655.

(d) Each owner or operator of an existing source who elects to comply with § 63.655(g) and (h) by using emissions averaging for any emission points shall submit an Implementation Plan.

(1) The Implementation Plan shall be submitted to the Administrator and approved prior to implementing emissions averaging. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, in a Notification of Compliance Status Report, in a Periodic Report or in any combination of these documents. If an owner or operator submits the information specified in paragraph (d)(2) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating the previously submitted information.

(2) The Implementation Plan shall include the information specified in paragraphs (d)(2)(i) through (d)(2)(ix) of this section for all points included in the average.

(i) The identification of all emission points in the planned emissions average and notation of whether each emission point is a Group 1 or Group 2 emission point as defined in § 63.641.

(ii) The projected annual emission debits and credits for each emission point and the sum for the emission points involved in the average calculated according to § 63.652. The annual projected credits must be greater than the projected debits, as required under § 63.652(e)(3).

(iii) The specific control technology or pollution prevention measure that will be used for each emission point included in the average and date of application or expected date of application.

(iv) The specific identification of each emission point affected by a pollution prevention measure. To be considered a pollution prevention measure, the criteria in § 63.652(j)(1) must be met. If the same pollution prevention measure reduces or eliminates emissions from multiple emission points in the average, the owner or operator must identify each of these emission points.

(v) A statement that the compliance demonstration, monitoring, inspection, recordkeeping, and reporting provisions in paragraphs (a), (b), and (c) of this section that are applicable to each emission point in the emissions average will be implemented beginning on the date of compliance.

(vi) Documentation of the information listed in paragraphs (d)(2)(vi)(A) through (d)(2)(vi)(D) of this section for each emission point included in the average.

(A) The values of the parameters used to determine whether each emission point in the emissions average is Group 1 or Group 2.

(B) The estimated values of all parameters needed for input to the emission debit and credit calculations in § 63.652 (g) and (h). These parameter values or, as appropriate, limited ranges for the parameter values, shall be specified in the source's Implementation Plan as enforceable operating conditions. Changes to these parameters must be reported in the next Periodic Report.

(C) The estimated percentage of reduction if a control technology achieving a lower percentage of reduction than the efficiency of the reference control technology, as defined in § 63.641, is or will be applied to the emission point.

(D) The anticipated nominal efficiency if a control technology achieving a greater percentage emission reduction than the efficiency of the reference control technology is or will be applied to the emission point. The procedures in § 63.652(i) shall be followed to apply for a nominal efficiency.

(vii) The information specified in § 63.655(h)(4) for:

(A) Each miscellaneous process vent controlled by a pollution prevention measure or control technique for which monitoring parameters or inspection procedures are not specified in paragraphs (a)(1) or (a)(2) of this section; and

(B) Each storage vessel controlled by a pollution prevention measure or a control technique other than an internal or external floating roof or a closed vent system with a control device.

(viii) Documentation of the information listed in paragraphs (d)(2)(viii)(A) through (d)(2)(viii)(G) of this section for each process wastewater stream included in the average.

(A) The information used to determine whether the wastewater stream is a Group 1 or Group 2 wastewater stream.

(B) The estimated values of all parameters needed for input to the wastewater emission credit and debit calculations in § 63.652(h)(6).

(C) The estimated percentage of reduction if the wastewater stream is or will be controlled using a treatment process or series of treatment processes that achieves an emission reduction less than or equal to the emission reduction specified in table 7 of this subpart.

(D) The estimated percentage of reduction if a control technology achieving less than or equal to 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes.

(E) The estimated percentage of reduction if a pollution prevention measure is or will be applied.

(F) The anticipated nominal efficiency if the owner or operator plans to apply for a nominal efficiency under § 63.652(i). A nominal efficiency shall be applied for if:

(*1*) A control technology is or will be applied to the wastewater stream and achieves an emission reduction greater than the emission reduction specified in table 7 of this subpart; or

(*2*) A control technology achieving greater than 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes.

(G) For each pollution prevention measure, treatment process, or control device used to reduce air emissions of organic HAP from wastewater and for which no monitoring parameters or inspection procedures are specified in § 63.647, the information specified in § 63.655(h)(4) shall be included in the Implementation Plan.

(ix) Documentation required in § 63.652(k) demonstrating the hazard or risk equivalency of the proposed emissions average.

(3) The Administrator shall determine within 120 calendar days whether the Implementation Plan submitted presents sufficient information. The Administrator shall either approve the Implementation Plan, request changes, or request that the owner or operator submit additional information. Once the Administrator receives sufficient information, the Administrator shall approve, disapprove, or request changes to the plan within 120 calendar days.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29881, June 12, 1996; 63 FR 31361, June 9, 1998; 74 FR 55686, Oct. 28, 2009; 80 FR 75246, Dec. 1, 2015]

§ 63.654 Heat exchange systems.

(a) Except as specified in paragraph (b) of this section, the owner or operator of a heat exchange system that meets the criteria in § 63.640(c)(8) must comply with the requirements of paragraphs (c) through (g) of this section.

(b) A heat exchange system is exempt from the requirements in paragraphs (c) through (g) of this section if all heat exchangers within the heat exchange system either:

(1) Operate with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side; or

(2) Employ an intervening cooling fluid containing less than 5 percent by weight of total organic HAP, as determined according to the provisions of § 63.180(d) of this part and table 1 of this subpart, between the process and the cooling water. This intervening fluid must serve to isolate the cooling water from the process fluid and must not be sent through a cooling tower or discharged. For purposes of this section, discharge does not include emptying for maintenance purposes.

(c) The owner or operator must perform monitoring to identify leaks of total strippable volatile organic compounds (VOC) from each heat exchange system subject to the requirements of this subpart according to the procedures in paragraphs (c)(1) through (6) of this section.

(1) *Monitoring locations for closed-loop recirculation heat exchange systems.* For each closed loop recirculating heat exchange system, collect and analyze a sample from the location(s) described in either paragraph (c)(1)(i) or (c)(1)(ii) of this section.

(i) Each cooling tower return line or any representative riser within the cooling tower prior to exposure to air for each heat exchange system.

(ii) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers within a heat

exchange system is covered by the selected monitoring location(s).

(2) *Monitoring locations for once-through heat exchange systems.* For each once-through heat exchange system, collect and analyze a sample from the location(s) described in paragraph (c)(2)(i) of this section. The owner or operator may also elect to collect and analyze an additional sample from the location(s) described in paragraph (c)(2)(ii) of this section.

(i) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s). The selected monitoring location may be at a point where discharges from multiple heat exchange systems are combined provided that the combined cooling water flow rate at the monitoring location does not exceed 40,000 gallons per minute.

(ii) The inlet water feed line for a once-through heat exchange system prior to any heat exchanger. If multiple heat exchange systems use the same water feed (*i.e.*, inlet water from the same primary water source), the owner or operator may monitor at one representative location and use the monitoring results for that sampling location for all heat exchange systems that use that same water feed.

(3) *Monitoring method.* Determine the total strippable hydrocarbon concentration (in parts per million by volume (ppmv) as methane) at each monitoring location using the ''Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources'' Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see §63.14) using a flame ionization detector (FID) analyzer for onsite determination as described in Section 6.1 of the Modified El Paso Method.

(4) *Monitoring frequency and leak action level for existing sources.* For a heat exchange system at an existing source, the owner or operator must comply with the monitoring frequency and leak action level as defined in paragraph (c)(4)(i) of this section or comply with the monitoring frequency and leak action level as defined in paragraph (c)(4)(ii) of this section. The owner or operator of an affected heat exchange system may choose to comply with paragraph (c)(4)(i) of this section for some heat exchange systems at the petroleum refinery and comply with paragraph (c)(4)(ii) of this section for other heat exchange systems. However, for each affected heat exchange system, the owner or operator of an affected heat exchange system must elect one monitoring alternative that will apply at all times. If the owner or operator intends to change the monitoring alternative that applies to a heat exchange system, the owner or operator must notify the Administrator 30 days in advance of such a change. All ''leaks'' identified prior to changing monitoring alternatives must be repaired. The monitoring frequencies specified in paragraphs (c)(4)(i) and (ii) of this section also apply to the inlet water feed line for a once-through heat exchange system, if monitoring of the inlet water feed is elected as provided in paragraph (c)(2)(ii) of this section.

(i) Monitor monthly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 6.2 ppmv.

(ii) Monitor quarterly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 3.1 ppmv unless repair is delayed as provided in paragraph (f) of this section. If a repair is delayed as provided in paragraph (f) of this section, monitor monthly.

(5) *Monitoring frequency and leak action level for new sources.* For a heat exchange system at a new source, the owner or operator must monitor monthly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 3.1 ppmv.

(6) *Leak definition.* A leak is defined as described in paragraph (c)(6)(i) or (c)(6)(ii) of this section, as applicable.

(i) For once-through heat exchange systems for which the inlet water feed is monitored as described in paragraph

(c)(2)(ii) of this section, a leak is detected if the difference in the measurement value of the sample taken from a location specified in paragraph (c)(2)(i) of this section and the measurement value of the corresponding sample taken from the location specified in paragraph (c)(2)(ii) of this section equals or exceeds the leak action level.

(ii) For all other heat exchange systems, a leak is detected if a measurement value of the sample taken from a location specified in either paragraph (c)(1)(i), (c)(1)(ii), or (c)(2)(i) of this section equals or exceeds the leak action level.

(d) If a leak is detected, the owner or operator must repair the leak to reduce the measured concentration to below the applicable action level as soon as practicable, but no later than 45 days after identifying the leak, except as specified in paragraphs (e) and (f) of this section. Repair includes re-monitoring at the monitoring location where the leak was identified according to the method specified in paragraph (c)(3) of this section to verify that the measured concentration is below the applicable action level. Actions that can be taken to achieve repair include but are not limited to:

(1) Physical modifications to the leaking heat exchanger, such as welding the leak or replacing a tube;

(2) Blocking the leaking tube within the heat exchanger;

(3) Changing the pressure so that water flows into the process fluid;

(4) Replacing the heat exchanger or heat exchanger bundle; or

(5) Isolating, bypassing, or otherwise removing the leaking heat exchanger from service until it is otherwise repaired.

(e) If the owner or operator detects a leak when monitoring a cooling tower return line under paragraph (c)(1)(i) of this section, the owner or operator may conduct additional monitoring of each heat exchanger or group of heat exchangers associated with the heat exchange system for which the leak was detected as provided under paragraph (c)(1)(ii) of this section. If no leaks are detected when monitoring according to the requirements of paragraph (c)(1)(ii) of this section, the heat exchange system is considered to meet the repair requirements through re-monitoring of the heat exchange system as provided in paragraph (d) of this section.

(f) The owner or operator may delay the repair of a leaking heat exchanger when one of the conditions in paragraph (f)(1) or (f)(2) of this section is met and the leak is less than the delay of repair action level specified in paragraph (f)(3) of this section. The owner or operator must determine if a delay of repair is necessary as soon as practicable, but no later than 45 days after first identifying the leak.

(1) If the repair is technically infeasible without a shutdown and the total strippable hydrocarbon concentration is initially and remains less than the delay of repair action level for all monthly monitoring periods during the delay of repair, the owner or operator may delay repair until the next scheduled shutdown of the heat exchange system. If, during subsequent monthly monitoring, the delay of repair action level is exceeded, the owner or operator must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.

(2) If the necessary equipment, parts, or personnel are not available and the total strippable hydrocarbon concentration is initially and remains less than the delay of repair action level for all monthly monitoring periods during the delay of repair, the owner or operator may delay the repair for a maximum of 120 calendar days. The owner or operator must demonstrate that the necessary equipment, parts, or personnel were not available. If, during subsequent monthly monitoring, the delay of repair action level is exceeded, the owner or operator must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.

(3) The delay of repair action level is a total strippable hydrocarbon concentration (as methane) in the stripping gas of 62 ppmv. The delay of repair action level is assessed as described in paragraph (f)(3)(i) or (f)(3)(ii) of this section, as applicable.

(i) For once-through heat exchange systems for which the inlet water feed

is monitored as described in paragraph (c)(2)(ii) of this section, the delay of repair action level is exceeded if the difference in the measurement value of the sample taken from a location specified in paragraph (c)(2)(i) of this section and the measurement value of the corresponding sample taken from the location specified in paragraph (c)(2)(ii) of this section equals or exceeds the delay of repair action level.

(ii) For all other heat exchange systems, the delay of repair action level is exceeded if a measurement value of the sample taken from a location specified in either paragraphs (c)(1)(i), (c)(1)(ii), or (c)(2)(i) of this section equals or exceeds the delay of repair action level.

(g) To delay the repair under paragraph (f) of this section, the owner or operator must record the information in paragraphs (g)(1) through (4) of this section.

(1) The reason(s) for delaying repair.

(2) A schedule for completing the repair as soon as practical.

(3) The date and concentration of the leak as first identified and the results of all subsequent monthly monitoring events during the delay of repair.

(4) An estimate of the potential strippable hydrocarbon emissions from the leaking heat exchange system or heat exchanger for each required delay of repair monitoring interval following the procedures in paragraphs (g)(4)(i) through (iv) of this section.

(i) Determine the leak concentration as specified in paragraph (c) of this section and convert the stripping gas leak concentration (in ppmv as methane) to an equivalent liquid concentration, in parts per million by weight (ppmw), using equation 7–1 from ''Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources'' Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see §63.14) and the molecular weight of 16 grams per mole (g/mol) for methane.

(ii) Determine the mass flow rate of the cooling water at the monitoring location where the leak was detected. If the monitoring location is an individual cooling tower riser, determine the total cooling water mass flow rate to the cooling tower. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. Volumetric flow measurements may be used and converted to mass flow rates using the density of water at the specific monitoring location temperature or using the default density of water at 25 degrees Celsius, which is 997 kilograms per cubic meter or 8.32 pounds per gallon.

(iii) For delay of repair monitoring intervals prior to repair of the leak, calculate the potential strippable hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the monitoring interval by multiplying the leak concentration in the cooling water, ppmw, determined in (g)(4)(i) of this section, by the mass flow rate of the cooling water determined in (g)(4)(ii) of this section and by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have had to be completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.

(iv) For delay of repair monitoring intervals ending with a repaired leak, calculate the potential strippable hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the final delay of repair monitoring interval by multiplying the duration of the final delay of repair monitoring interval by the leak concentration and cooling water flow rates determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to remonitoring to verify the leak was repaired and ending at the time of the re-

monitoring event that verified that the leak was repaired.

[74 FR 55686, Oct. 28, 2009, as amended at 75 FR 37731, June 30, 2010; 78 FR 37146, June 20, 2013]

§ 63.655 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to the wastewater provisions in § 63.647 shall comply with the recordkeeping and reporting provisions in §§ 61.356 and 61.357 of 40 CFR part 61, subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of § 63.640. There are no additional reporting and recordkeeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Recordkeeping and reporting for emissions averages are specified in § 63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(b) Each owner or operator subject to the gasoline loading rack provisions in § 63.650 shall comply with the recordkeeping and reporting provisions in § 63.428 (b) and (c), (g)(1), (h)(1) through (h)(3), and (k) of subpart R. These requirements are summarized in table 4 of this subpart. There are no additional reporting and recordkeeping requirements for gasoline loading racks under this subpart unless a loading rack is included in an emissions average. Recordkeeping and reporting for emissions averages are specified in § 63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(c) Each owner or operator subject to the marine tank vessel loading operation standards in § 63.651 shall comply with the recordkeeping and reporting provisions in §§ 63.567(a) and 63.567(c) through (k) of subpart Y. These requirements are summarized in table 5 of this subpart. There are no additional reporting and recordkeeping requirements for marine tank vessel loading operations under this subpart unless marine tank vessel loading operations are included in an emissions average. Recordkeeping and reporting for emissions averages are specified in § 63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(d) Each owner or operator subject to the equipment leaks standards in § 63.648 shall comply with the recordkeeping and reporting provisions in paragraphs (d)(1) through (d)(6) of this section.

(1) Sections 60.486 and 60.487 of subpart VV of part 60 except as specified in paragraph (d)(1)(i) of this section; or §§ 63.181 and 63.182 of subpart H of this part except for §§ 63.182(b), (c)(2), and (c)(4).

(i) The signature of the owner or operator (or designate) whose decision it was that a repair could not be effected without a process shutdown is not required to be recorded. Instead, the name of the person whose decision it was that a repair could not be effected without a process shutdown shall be recorded and retained for 2 years.

(ii) [Reserved]

(2) The Notification of Compliance Status report required by § 63.182(c) of subpart H and the initial semiannual report required by § 60.487(b) of 40 CFR part 60, subpart VV shall be submitted within 150 days of the compliance date specified in § 63.640(h); the requirements of subpart H of this part are summarized in table 3 of this subpart.

(3) An owner or operator who determines that a compressor qualifies for the hydrogen service exemption in § 63.648 shall also keep a record of the demonstration required by § 63.648.

(4) An owner or operator must keep a list of identification numbers for valves that are designated as leakless per § 63.648(c)(10).

(5) An owner or operator must identify, either by list or location (area or refining process unit), equipment in organic HAP service less than 300 hours per year within refining process units subject to this subpart.

(6) An owner or operator must keep a list of reciprocating pumps and compressors determined to be exempt from seal requirements as per §§ 63.648 (f) and (i).

(e) Each owner or operator of a source subject to this subpart shall submit the reports listed in paragraphs (e)(1) through (e)(3) of this section except as provided in paragraph (h)(5) of this section, and shall keep records as described in paragraph (i) of this section.

(1) A Notification of Compliance Status report as described in paragraph (f) of this section;

(2) Periodic Reports as described in paragraph (g) of this section; and

(3) Other reports as described in paragraph (h) of this section.

(f) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status report within 150 days after the compliance dates specified in §63.640(h) with the exception of Notification of Compliance Status reports submitted to comply with §63.640(l)(3) and for storage vessels subject to the compliance schedule specified in §63.640(h)(2). Notification of Compliance Status reports required by §63.640(l)(3) and for storage vessels subject to the compliance dates specified in §63.640(h)(2) shall be submitted according to paragraph (f)(6) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If the required information has been submitted before the date 150 days after the compliance date specified in §63.640(h), a separate Notification of Compliance Status report is not required within 150 days after the compliance dates specified in §63.640(h). If an owner or operator submits the information specified in paragraphs (f)(1) through (5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information. Each owner or operator of a gasoline loading rack classified under Standard Industrial Classification Code 2911 located within a contiguous area and under common control with a petroleum refinery subject to the standards of this subpart shall submit the Notification of Compliance Status report required by subpart R of this part within 150 days after the compliance dates specified in §63.640(h).

(1) The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1)(i) through (viii) of this section.

(i) For storage vessels, this report shall include the information specified in paragraphs (f)(1)(i)(A) through (f)(1)(i)(D) of this section.

(A) Identification of each storage vessel subject to this subpart, and for each Group 1 storage vessel subject to this subpart, the information specified in paragraphs (f)(1)(i)(A)(*1*) through (*3*) of this section. This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in §63.640(h)(2) or to comply with §63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with either §63.646 or §63.660 that is not included in an emissions average, the method of compliance (*i.e.*, internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in §63.640(h)(2) that are not complying with §63.646 or §63.660 as applicable, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in §63.640(h)(2) that are complying with §63.646 or §63.660, as applicable, and the Group 1 storage vessels described in §63.640(l), the actual compliance date.

(B) If a closed vent system and a control device other than a flare is used to comply with §63.646 or §63.660, the owner or operator shall submit:

(*1*) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed; and either

(*2*) The design evaluation documentation specified in §63.120(d)(1)(i) of subpart G or §63.985(b)(1)(i) of subpart SS (as applicable), if the owner or operator elects to prepare a design evaluation; or

(*3*) If the owner or operator elects to submit the results of a performance test, identification of the storage vessel and control device for which the performance test will be submitted, and identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.

If the performance test is submitted electronically through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) in accordance with § 63.655(h)(9), the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the Notification of Compliance Status in lieu of the performance test results. The performance test results must be submitted to CEDRI by the date the Notification of Compliance Status is submitted.

(C) If a closed vent system and control device other than a flare is used, the owner or operator shall submit:

(*1*) The operating range for each monitoring parameter. The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(*2*) If a performance test is conducted instead of a design evaluation, results of the performance test demonstrating that the control device achieves greater than or equal to the required control efficiency. A performance test conducted prior to the compliance date of this subpart can be used to comply with this requirement, provided that the test was conducted using EPA methods and that the test conditions are representative of current operating practices. If the performance test is submitted electronically through the EPA's Compliance and Emissions Data Reporting Interface in accordance with § 63.655(h)(9), the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the Notification of Compliance Status in lieu of the performance test results. The performance test results must be submitted to CEDRI by the date the Notification of Compliance Status is submitted.

(D) If a closed vent system and a flare is used, the owner or operator shall submit:

(*1*) Flare design (e.g., steam-assisted, air-assisted, or nonassisted);

(*2*) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by § 63.120(e) of subpart G or § 63.987(b) of subpart SS or § 63.670(h), as applicable; and

(*3*) All periods during the compliance determination when the pilot flame is absent.

(ii) For miscellaneous process vents, identification of each miscellaneous process vent subject to this subpart, whether the process vent is Group 1 or Group 2, and the method of compliance for each Group 1 miscellaneous process vent that is not included in an emissions average (e.g., use of a flare or other control device meeting the requirements of § 63.643(a)).

(iii) For miscellaneous process vents controlled by control devices required to be tested under §§ 63.645 and 63.116(c), performance test results including the information in paragraphs (f)(1)(iii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.645 and that the test conditions are representative of current operating conditions. If the performance test is submitted electronically through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) in accordance with § 63.655(h)(9), the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the Notification of Compliance Status in lieu of the performance test results. The performance test results must be submitted to CEDRI by the date the Notification of Compliance Status is submitted.

(A) The percentage of reduction of organic HAP's or TOC, or the outlet concentration of organic HAP's or TOC (parts per million by volume on a dry basis corrected to 3 percent oxygen), determined as specified in § 63.116(c) of subpart G of this part; and

(B) The value of the monitored parameters specified in table 10 of this subpart, or a site-specific parameter approved by the permitting authority, averaged over the full period of the performance test.

(iv) For miscellaneous process vents controlled by flares, initial compliance test results including the information in paragraphs (f)(1)(iv)(A) and (B) of this section.

(A) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by §§ 63.645 and 63.116(a) of subpart G or § 63.670(h), as applicable; and

(B) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

(v) For equipment leaks complying with § 63.648(c) (i.e., complying with the requirements of subpart H of this part), the Notification of Compliance Report Status report information required by § 63.182(c) of subpart H and whether the percentage of leaking valves will be reported on a process unit basis or a sourcewide basis.

(vi) For each heat exchange system, identification of the heat exchange systems that are subject to the requirements of this subpart. For heat exchange systems at existing sources, the owner or operator shall indicate whether monitoring will be conducted as specified in § 63.654(c)(4)(i) or § 63.654(c)(4)(ii).

(vii) For pressure relief devices in organic HAP service subject to the requirements in § 63.648(j)(3)(i) and (ii), this report shall include the information specified in paragraphs (f)(1)(vii)(A) and (B) of this section.

(A) A description of the monitoring system to be implemented, including the relief devices and process parameters to be monitored, and a description of the alarms or other methods by which operators will be notified of a pressure release.

(B) A description of the prevention measures to be implemented for each affected pressure relief device.

(viii) For each delayed coking unit, identification of whether the unit is an existing affected source or a new affected source and whether monitoring will be conducted as specified in § 63.657(b) or (c).

(2) If initial performance tests are required by §§ 63.643 through 63.653, the Notification of Compliance Status report shall include one complete test report for each test method used for a particular source. On and after February 1, 2016, for data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test, you must submit the results in accordance with § 63.655(h)(9) by the date that you submit the Notification of Compliance Status, and you must include the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted in the Notification of Compliance Status. All other performance test results must be reported in the Notification of Compliance Status.

(i) For additional tests performed using the same method, the results specified in paragraph (f)(1) of this section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) Performance tests are required only if specified by §§ 63.643 through 63.653 of this subpart. Initial performance tests are required for some kinds of emission points and controls. Periodic testing of the same emission point is not required.

(3) For each monitored parameter for which a range is required to be established under § 63.120(d) of subpart G or § 63.985(b) of subpart SS for storage vessels or § 63.644 for miscellaneous process vents, the Notification of Compliance Status report shall include the information in paragraphs (f)(3)(i) through (iii) of this section.

(i) The specific range of the monitored parameter(s) for each emission point;

(ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range

and a description of why the range ensures compliance with the emission standard.

(A) If a performance test is required by this subpart for a control device, the range shall be based on the parameter values measured during the performance test supplemented by engineering assessments and manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of permitted parameter values.

(B) If a performance test is not required by this subpart for a control device, the range may be based solely on engineering assessments and manufacturers' recommendations.

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(4) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status report, unless the results are required to be submitted electronically by §63.655(h)(9). For performance evaluation results required to be submitted through CEDRI, submit the results in accordance with §63.655(h)(9) by the date that you submit the Notification of Compliance Status and include the process unit where the CMS is installed, the parameter measured by the CMS, and the date that the performance evaluation was conducted in the Notification of Compliance Status.

(5) For emission points included in an emissions average, the Notification of Compliance Status report shall include the values of the parameters needed for input to the emission credit and debit equations in §63.652(g) and (h), calculated or measured according to the procedures in §63.652(g) and (h), and the resulting credits and debits for the first quarter of the year. The first quarter begins on the compliance date specified in §63.640.

(6) Notification of Compliance Status reports required by §63.640(l)(3) and for storage vessels subject to the compliance dates specified in §63.640(h)(2) shall be submitted no later than 60 days after the end of the 6-month period during which the change or addition was made that resulted in the Group 1 emission point or the existing Group 1 storage vessel was brought into compliance, and may be combined with the periodic report. Six-month periods shall be the same 6-month periods specified in paragraph (g) of this section. The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1) through (f)(5) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, as part of the periodic report, or in any combination of these four. If the required information has been submitted before the date 60 days after the end of the 6-month period in which the addition of the Group 1 emission point took place, a separate Notification of Compliance Status report is not required within 60 days after the end of the 6-month period. If an owner or operator submits the information specified in paragraphs (f)(1) through (f)(5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information.

(g) The owner or operator of a source subject to this subpart shall submit Periodic Reports no later than 60 days after the end of each 6-month period when any of the information specified in paragraphs (g)(1) through (7) of this section or paragraphs (g)(9) through (14) of this section is collected. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A Periodic Report is not required if none of the events identified in paragraphs (g)(1) through (7) of this section or paragraphs (g)(9) through (14) of this section occurred during the 6-month period unless emissions averaging is utilized. Quarterly reports must be submitted for emission points included in emission averages, as provided in paragraph (g)(8) of this section. An owner or operator may submit reports required by other regulations in place of or as part of the Periodic Report required by this paragraph (g) if

the reports contain the information required by paragraphs (g)(1) through (14) of this section. The Periodic Report must contain company identifier information (including the company name and address), the beginning and ending dates of the time period covered by the report, and the information specified in paragraphs (g)(1) through (14) of this section, and it must be submitted in accordance with §63.10(a) of this part. On or after April 4, 2024, upon initial startup, or once the form has been available on the CEDRI website for six months, whichever date is later, owners or operators must submit all subsequent Periodic Reports in accordance with §63.10(a) of this part except for the items in paragraphs (g)(10)(iv) and (11)(iv) of this section. The items in paragraphs (g)(10)(iv) and (11)(iv) of this section must be submitted using the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for this subpart and following the procedure specified in §63.9(k), except any medium submitted through mail must be sent to the attention of the Refinery Sector lead. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(1) For storage vessels, Periodic Reports shall include the information specified for Periodic Reports in paragraphs (g)(2) through (5) of this section. Information related to gaskets, slotted membranes, and sleeve seals is not required for storage vessels that are part of an existing source complying with §63.646.

(2) *Internal floating roofs.* (i) An owner or operator who elects to comply with §63.646 by using a fixed roof and an internal floating roof or by using an external floating roof converted to an internal floating roof shall submit the results of each inspection conducted in accordance with §63.120(a) of subpart G in which a failure is detected in the control equipment.

(A) For vessels for which annual inspections are required under §63.120(a)(2)(i) or (a)(3)(ii) of subpart G, the specifications and requirements listed in paragraphs (g)(2)(i)(A)(*1*) through (*3*) of this section apply.

(*1*) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

(*2*) Except as provided in paragraph (g)(2)(i)(A)(*3*) of this section, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.

(*3*) If an extension is utilized in accordance with §63.120(a)(4) of subpart G, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in §63.120(a)(4) of subpart G; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(B) For vessels for which inspections are required under §63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of subpart G (*i.e.*, internal inspections), the specifications and requirements listed in paragraphs (g)(2)(i)(B)(*1*) and (*2*) of this section apply.

(*1*) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than a 10 percent open area.

(*2*) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(ii) An owner or operator who elects to comply with §63.660 by using a fixed roof and an internal floating roof shall submit the results of each inspection conducted in accordance with §63.1063(c)(1), (d)(1), and (d)(2) of subpart WW in which a failure is detected in the control equipment. For vessels for which inspections are required under §63.1063(c) and (d), the specifications and requirements listed in paragraphs (g)(2)(ii)(A) through (C) of this section apply.

(A) A failure is defined in §63.1063(d)(1) of subpart WW.

(B) Each Periodic Report shall include a copy of the inspection record required by §63.1065(b) of subpart WW when a failure occurs.

(C) An owner or operator who elects to use an extension in accordance with §63.1063(e)(2) of subpart WW shall, in the next Periodic Report, submit the documentation required by §63.1063(e)(2).

(3) *External floating roofs.* (i) An owner or operator who elects to comply with §63.646 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(i)(A) through (C) of this section.

(A) The owner or operator shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with §63.120(b) of subpart G in which the seal and seal gap requirements of §63.120(b)(3), (4), (5), or (6) of subpart G are not met. This documentation shall include the information specified in paragraphs (g)(3)(i)(A)(*1*) through (*4*) of this section.

(*1*) The date of the seal gap measurement.

(*2*) The raw data obtained in the seal gap measurement and the calculations described in §63.120(b)(3) and (4) of subpart G.

(*3*) A description of any seal condition specified in §63.120(b)(5) or (6) of subpart G that is not met.

(*4*) A description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(B) If an extension is utilized in accordance with §63.120(b)(7)(ii) or (b)(8) of subpart G, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in §63.120(b)(7)(ii) or (b)(8) of subpart G, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(C) The owner or operator shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by §63.120(b)(10) of subpart G. This documentation shall meet the specifications and requirements in paragraphs (g)(3)(i)(C)(*1*) and (*2*) of this section.

(*1*) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(*2*) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(ii) An owner or operator who elects to comply with §63.660 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(ii)(A) and (B) of this section.

(A) For vessels for which inspections are required under §63.1063(c)(2), (d)(1), and (d)(3) of subpart WW, the owner or operator shall submit, as part of the Periodic Report, a copy of the inspection record required by §63.1065(b) of subpart WW when a failure occurs. A failure is defined in §63.1063(d)(1).

(B) An owner or operator who elects to use an extension in accordance with §63.1063(e)(2) or (c)(2)(iv)(B) of subpart

WW shall, in the next Periodic Report, submit the documentation required by those paragraphs.

(4) [Reserved]

(5) An owner or operator who elects to comply with § 63.646 or § 63.660 by installing a closed vent system and control device shall submit, as part of the next Periodic Report, the information specified in paragraphs (g)(5)(i) through (v) of this section, as applicable.

(i) The Periodic Report shall include the information specified in paragraphs (g)(5)(i)(A) and (B) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of either § 63.119(e)(1) or (2) of subpart G, § 63.985(a) and (b) of subpart SS, or § 63.670, as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of either § 63.119(e)(1) or (2) of subpart G, § 63.985(a) and (b) of subpart SS, or § 63.670, as applicable, due to planned routine maintenance.

(ii) If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status report. The description shall include: Identification of the control device for which the measured parameters were outside of the established ranges, and causes for the measured parameters to be outside of the established ranges.

(iii) If a flare is used prior to January 30, 2019 and prior to electing to comply with the requirements in § 63.670, the Periodic Report shall describe each occurrence when the flare does not meet the general control device requirements specified in § 63.11(b) of subpart A and shall include: Identification of the flare that does not meet the general requirements specified in § 63.11(b) of subpart A, and reasons the flare did not meet the general requirements specified in § 63.11(b) of subpart A.

(iv) If a flare is used on or after the date for which compliance with the requirements in § 63.670 is elected, which can be no later than January 30, 2019, the Periodic Report shall include the items specified in paragraph (g)(11) of this section.

(v) An owner or operator who elects to comply with § 63.660 by installing an alternate control device as described in § 63.1064 of subpart WW shall submit, as part of the next Periodic Report, a written application as described in § 63.1066(b)(3) of subpart WW.

(6) For miscellaneous process vents for which continuous parameter monitors are required by this subpart, periods of excess emissions shall be identified in the Periodic Reports and shall be used to determine compliance with the emission standards.

(i) Period of excess emission means any of the following conditions:

(A) An operating day when the daily average value of a monitored parameter, except presence of a flare pilot flame, is outside the range specified in the Notification of Compliance Status report. Monitoring data recorded during periods of monitoring system breakdown, repairs, calibration checks and zero (low-level) and high-level adjustments shall not be used in computing daily average values of monitored parameters.

(B) An operating day when all pilot flames of a flare are absent.

(C) An operating day when monitoring data required to be recorded in paragraphs (i)(3) (i) and (ii) of this section are available for less than 75 percent of the operating hours.

(D) For data compression systems under paragraph (h)(5)(iii) of this section, an operating day when the monitor operated for less than 75 percent of the operating hours or a day when less than 18 monitoring values were recorded.

(ii) For miscellaneous process vents, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other

site-specific parameter(s) have been approved by the operating permit authority.

(iii) For periods in closed vent systems when a Group 1 miscellaneous process vent stream was detected in the bypass line or diverted from the control device and either directly to the atmosphere or to a control device that does not comply with the requirements in §63.643(a), report the date, time, duration, estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting mass emissions of organic HAP that bypassed the control device. For periods when the flow indicator is not operating, report the date, time, and duration.

(7) If a performance test for determination of compliance for a new emission point subject to this subpart or for an emission point that has changed from Group 2 to Group 1 is conducted during the period covered by a Periodic Report, the results of the performance test shall be included in the Periodic Report.

(i) Results of the performance test shall include the identification of the source tested, the date of the test, the percentage of emissions reduction or outlet pollutant concentration reduction (whichever is needed to determine compliance) for each run and for the average of all runs, and the values of the monitored operating parameters.

(ii) The complete test report shall be maintained onsite.

(8) The owner or operator of a source shall submit quarterly reports for all emission points included in an emissions average.

(i) The quarterly reports shall be submitted no later than 60 calendar days after the end of each quarter. The first report shall be submitted with the Notification of Compliance Status report no later than 150 days after the compliance date specified in §63.640.

(ii) The quarterly reports shall include:

(A) The information specified in this paragraph and in paragraphs (g)(2) through (g)(7) of this section for all storage vessels and miscellaneous process vents included in an emissions average;

(B) The information required to be reported by §63.428 (h)(1), (h)(2), and (h)(3) for each gasoline loading rack included in an emissions average, unless this information has already been submitted in a separate report;

(C) The information required to be reported by §63.567(e)(4) and (j)(3) of subpart Y for each marine tank vessel loading operation included in an emissions average, unless the information has already been submitted in a separate report;

(D) Any information pertaining to each wastewater stream included in an emissions average that the source is required to report under the Implementation Plan for the source;

(E) The credits and debits calculated each month during the quarter;

(F) A demonstration that debits calculated for the quarter are not more than 1.30 times the credits calculated for the quarter, as required under §§63.652(e)(4);

(G) The values of any inputs to the credit and debit equations in §63.652 (g) and (h) that change from month to month during the quarter or that have changed since the previous quarter; and

(H) Any other information the source is required to report under the Implementation Plan for the source.

(iii) Every fourth quarterly report shall include the following:

(A) A demonstration that annual credits are greater than or equal to annual debits as required by §63.652(e)(3); and

(B) A certification of compliance with all the emissions averaging provisions in §63.652 of this subpart.

(9) For heat exchange systems, Periodic Reports must include the following information:

(i) The number of heat exchange systems at the plant site subject to the monitoring requirements in §63.654.

(ii) The number of heat exchange systems at the plant site found to be leaking.

(iii) For each monitoring location where the total strippable hydrocarbon concentration was determined to be equal to or greater than the applicable leak definitions specified in

§ 63.654(c)(6), identification of the monitoring location (e.g., unique monitoring location or heat exchange system ID number), the measured total strippable hydrocarbon concentration, the date the leak was first identified, and, if applicable, the date the source of the leak was identified;

(iv) For leaks that were repaired during the reporting period (including delayed repairs), identification of the monitoring location associated with the repaired leak, the total strippable hydrocarbon concentration measured during re-monitoring to verify repair, and the re-monitoring date (*i.e.*, the effective date of repair); and

(v) For each delayed repair, identification of the monitoring location associated with the leak for which repair is delayed, the date when the delay of repair began, the date the repair is expected to be completed (if the leak is not repaired during the reporting period), the total strippable hydrocarbon concentration and date of each monitoring event conducted on the delayed repair during the reporting period, and an estimate of the potential strippable hydrocarbon emissions over the reporting period associated with the delayed repair.

(10) For pressure relief devices subject to the requirements § 63.648(j), Periodic Reports must include the information specified in paragraphs (g)(10)(i) through (iv) of this section. Owners or operators must submit the Periodic Report in accordance with § 63.10(a) of this part. On or after April 4, 2024 or once the report template for this subpart has been available on the CEDRI website for six months, whichever date is later, owners or operators must submit subsequent Periodic Reports in accordance with § 63.10(a) of this part except for the items in paragraph (iv) of this section. The items in paragraph (iv) of this section must be submitted using the appropriate electronic report template on the CEDRI website for this subpart and following the procedures specified in § 63.9(k), except any medium submitted through mail must be sent to the attention of the Refinery Sector lead. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(i) For pressure relief devices in organic HAP gas or vapor service, pursuant to § 63.648(j)(1), report any instrument reading of 500 ppm or greater.

(ii) For pressure relief devices in organic HAP gas or vapor service subject to § 63.648(j)(2), report confirmation that any monitoring required to be done during the reporting period to show compliance was conducted.

(iii) For pilot-operated pressure relief devices in organic HAP service, report each pressure release to the atmosphere through the pilot vent that equals or exceeds 72 pounds of VOC per day, including duration of the pressure release through the pilot vent and estimate of the mass quantity of each organic HAP released.

(iv) For each pressure release to the atmosphere during the reporting period from a pressure relief device in organic HAP service subject to § 63.648(j)(3), report the following information:

(A) Pressure relief device identification name or number.

(B) The start time and date of the pressure release.

(C) The duration of the pressure release (in hours).

(D) An estimate of the mass quantity of each organic HAP released (in pounds).

(E) The results of any root cause analysis and corrective action analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

(11) For flares subject to § 63.670, Periodic Reports must include the information specified in paragraphs (g)(11)(i) through (iv) of this section. Owners or operators must submit the Periodic Report in accordance with § 63.10(a) of this part. On or after April 4, 2024 or once the report template for this subpart has been available on the CEDRI website for six months, whichever date

is later, owners or operators must submit subsequent Periodic Reports in accordance with § 63.10(a) of this part except for the items in paragraph (iv) of this section. The items in paragraph (iv) of this section must be submitted using the appropriate electronic report template on the CEDRI website and following the procedures specified in § 63.9(k), except any medium submitted through mail must be sent to the attention of the Refinery Sector lead. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(i) Records as specified in paragraph (i)(9)(i) of this section for each 15-minute block during which there was at least one minute when regulated material is routed to a flare and no pilot flame is present.

(ii) Visible emission records as specified in paragraph (i)(9)(ii)(C) of this section for each period of 2 consecutive hours during which visible emissions exceeded a total of 5 minutes.

(iii) The 15-minute block periods for which the applicable operating limits specified in § 63.670(d) through (f) are not met. Indicate the date and time for the period, the type of deviation (e.g., flare tip velocity, valve position for pressure-assisted flares, combustion zone net heating value, or net heating value dilution parameter) and the flare tip velocity, if applicable, and the net heating value operating parameter(s) determined following the methods in § 63.670(k) through (n) as applicable.

(iv) An indication whether there were any flaring events meeting the criteria in § 63.670(o)(3) that occurred during the reporting period. If there were flaring events meeting the criteria in § 63.670(o)(3), report the following information for each such flaring event:

(A) Flare identification name or number.

(B) The type of flaring event.

(C) The start and stop time and date of the flaring event.

(D) The length of time (in minutes) for which emissions were visible from the flare during the event.

(E) The periods of time that the flare tip velocity exceeds the maximum flare tip velocity determined using the methods in § 63.670(d)(2) and the maximum 15-minute block average flare tip velocity recorded during the event.

(F) Results of the root cause and corrective actions analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

(12) For delayed coking units, the Periodic Report must include the information specified in paragraphs (g)(12)(i) through (iv) of this section.

(i) For existing source delayed coking units, any 60-cycle average exceeding the applicable limit in § 63.657(a)(1).

(ii) For new source delayed coking units, any direct venting event exceeding the applicable limit in § 63.657(a)(2).

(iii) The total number of double quenching events performed during the reporting period.

(iv) For each double quenching draining event when the drain water temperature exceeded 210 °F, report the drum, date, time, the coke drum vessel pressure or temperature, as applicable, when pre-vent draining was initiated, and the maximum drain water temperature during the pre-vent draining period.

(13) For maintenance vents subject to the requirements in § 63.643(c), Periodic Reports must include the information specified in paragraphs (g)(13)(i) through (iv) of this section for any release exceeding the applicable limits in § 63.643(c)(1). For the purposes of this reporting requirement, owners or operators complying with § 63.643(c)(1)(iv) must report each venting event for which the lower explosive limit is 20 percent or greater; owners or operators complying with § 63.643(c)(1)(v) must report each venting event conducted under those provisions and include an explanation for each event as to why utilization of this alternative was required.

(i) Identification of the maintenance vent and the equipment served by the maintenance vent.

(ii) The date and time the maintenance vent was opened to the atmosphere.

(iii) The lower explosive limit, vessel pressure, or mass of VOC in the equipment, as applicable, at the start of atmospheric venting. If the 5 psig vessel pressure option in § 63.643(c)(1)(ii) was used and active purging was initiated while the concentration of the vapors was 10 percent or greater of its LEL, also include the concentration of the vapors at the time active purging was initiated.

(iv) An estimate of the mass of organic HAP released during the entire atmospheric venting event.

(14) Any changes in the information provided in a previous Notification of Compliance Status report.

(h) Other reports shall be submitted as specified in subpart A of this part and as follows:

(1) [Reserved]

(2) For storage vessels, notifications of inspections as specified in paragraphs (h)(2)(i) and (ii) of this section.

(i) In order to afford the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (h)(2)(i) (B) and (C) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (h)(2)(i)(C) of this section, if the internal inspection required by § 63.120(a)(2), (a)(3), or (b)(10) of subpart G or § 63.1063(d)(1) of subpart WW is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (h)(2)(i)(A) and/or (h)(2)(i)(B) of this section for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (h)(2)(i)(A) of this section, or sooner than 7 days after submitting the notification required by paragraph (h)(2)(i)(B) of this section for all storage vessels, or for individual storage vessels on a case-by-case basis.

(ii) In order to afford the Administrator the opportunity to have an observer present, the owner or operator of a storage vessel equipped with an external floating roof shall notify the Administrator of any seal gap measurements. The notification shall be made in writing at least 30 calendar days in advance of any gap measurements required by § 63.120(b)(1) or (2) or § 63.1063(d)(3). The State or local permitting authority can waive this notification requirement for all or some storage vessels subject to the rule or can allow less than 30 calendar days' notice.

(3) For owners or operators of sources required to request approval for a nominal control efficiency for use in calculating credits for an emissions average, the information specified in § 63.652(h).

(4) The owner or operator who requests approval to monitor a different parameter than those listed in § 63.644 for miscellaneous process vents or who is required by § 63.653(a)(8) to establish a site-specific monitoring parameter for a point in an emissions average shall submit the information specified in paragraphs (h)(4)(i) through (h)(4)(iii) of this section. For new or reconstructed sources, the information shall be submitted with the application

for approval of construction or reconstruction required by §63.5(d) of subpart A and for existing sources, and the information shall be submitted no later than 18 months prior to the compliance date. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) A description of the parameter(s) to be monitored to determine whether excess emissions occur and an explanation of the criteria used to select the parameter(s).

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter can be used to determine excess emissions and the schedule for this demonstration. The owner or operator must certify that they will establish a range for the monitored parameter as part of the Notification of Compliance Status report required in paragraphs (e) and (f) of this section.

(iii) The frequency and content of monitoring, recording, and reporting if: monitoring and recording are not continuous; or if periods of excess emissions, as defined in paragraph (g)(6) of this section, will not be identified in Periodic Reports required under paragraphs (e) and (g) of this section. The rationale for the proposed monitoring, recording, and reporting system shall be included.

(5) An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in paragraph (i) of this section.

(i) Requests shall be submitted with the Application for Approval of Construction or Reconstruction for new sources and no later than 18 months prior to the compliance date for existing sources. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal. Requests shall contain the information specified in paragraphs (h)(5)(iii) through (h)(5)(iv) of this section, as applicable.

(ii) The provisions in §63.8(f)(5)(i) of subpart A of this part shall govern the review and approval of requests.

(iii) [Reserved]

(iv) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in §63.8(f) of subpart A of this part.

(6) The owner or operator shall submit the information specified in paragraphs (h)(6)(i) through (h)(6)(iii) of this section, as applicable. For existing sources, this information shall be submitted in the initial Notification of Compliance Status report. For a new source, the information shall be submitted with the application for approval of construction or reconstruction required by §63.5(d) of subpart A of this part. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units.

(ii) The determination of applicability of this subpart to any storage vessel for which use varies from year to year.

(iii) The determination of applicability of this subpart to any distillation unit for which use varies from year to year.

(7) The owner or operator of a heat exchange system at an existing source must notify the Administrator at least 30 calendar days prior to changing from one of the monitoring options specified in §63.654(c)(4) to the other.

(8) For fenceline monitoring systems subject to §63.658, each owner or operator shall submit the following information to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) on a quarterly basis. (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The first quarterly report must be submitted once the owner or operator has obtained 12 months of data. The first quarterly report must cover the period beginning on the compliance date that is specified in Table 11 of this subpart and ending on March 31, June 30, September 30 or December 31, whichever date is the first date that occurs after the owner or operator has obtained 12 months of data (*i.e.*, the

first quarterly report will contain between 12 and 15 months of data). Each subsequent quarterly report must cover one of the following reporting periods: Quarter 1 from January 1 through March 31; Quarter 2 from April 1 through June 30; Quarter 3 from July 1 through September 30; and Quarter 4 from October 1 through December 31. Each quarterly report must be electronically submitted no later than 45 calendar days following the end of the reporting period.

(i) Facility name and address.

(ii) Year and reporting quarter (*i.e.*, Quarter 1, Quarter 2, Quarter 3, or Quarter 4).

(iii) For the first reporting period and for any reporting period in which a passive monitor is added or moved, for each passive monitor: The latitude and longitude location coordinates; the sampler name; and identification of the type of sampler (*i.e.*, regular monitor, extra monitor, duplicate, field blank, inactive). The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. Coordinates shall be in decimal degrees with at least five decimal places.

(iv) The beginning and ending dates for each sampling period.

(v) Individual sample results for benzene reported in units of $\mu g/m^3$ for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as below the detection limit and reported at the method detection limit.

(vi) Data flags that indicate each monitor that was skipped for the sampling period, if the owner or operator uses an alternative sampling frequency under § 63.658(e)(3).

(vii) Data flags for each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part. For each outlier, the owner or operator must submit the individual sample result of the outlier, as well as the evidence used to conclude that the result is an outlier.

(viii) The biweekly concentration difference (Δc) for benzene for each sampling period and the annual average Δc for benzene for each sampling period.

(9) On and after February 1, 2016, if required to submit the results of a performance test or CEMS performance evaluation, the owner or operator shall submit the results according to the procedures in paragraphs (h)(9)(i) and (ii) of this section.

(i) Unless otherwise specified by this subpart, within 60 days after the date of completing each performance test as required by this subpart, the owner or operator shall submit the results of the performance tests following the procedure specified in either paragraph (h)(9)(i)(A) or (B) of this section.

(A) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*) at the time of the test, the owner or operator must submit the results of the performance test to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If an owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (h)(9)(i)(A).

(B) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the

owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

(ii) Unless otherwise specified by this subpart, within 60 days after the date of completing each CEMS performance evaluation as required by this subpart, the owner or operator must submit the results of the performance evaluation following the procedure specified in either paragraph (h)(9)(ii)(A) or (B) of this section.

(A) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the owner or operator must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If an owner or operator claims that some of the performance evaluation information being submitted is CBI, the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (h)(9)(ii)(A).

(B) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the owner or operator must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.

(10) *Extensions to electronic reporting deadlines.* (i) If you are required to electronically submit a report through the Compliance and Emissions Data Reporting Interface (CEDRI) in the EPA's Central Data Exchange (CDX), and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date(s) and time(s) the CDX or CEDRI were unavailable when you attempted to access it in the 5 business days prior to the submission deadline; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(ii) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely

comply with the reporting requirement. For the purposes of this paragraph, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(i) *Recordkeeping.* Each owner or operator of a source subject to this subpart shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in paragraphs (i)(1) through (12) of this section. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, flash drive, floppy disk, magnetic tape, or microfiche.

(1) Each owner or operator subject to the storage vessel provisions in § 63.646 shall keep the records specified in § 63.123 of subpart G except as specified in paragraphs (i)(1)(i) through (iv) of this section. Each owner or operator subject to the storage vessel provisions in § 63.660 shall keep records as specified in paragraphs (i)(1)(v) and (vi) of this section.

(i) Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.

(ii) All references to § 63.122 in § 63.123 of subpart G shall be replaced with § 63.655(e).

(iii) All references to § 63.150 in § 63.123 of subpart G of this part shall be replaced with § 63.652.

(iv) If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(v) Each owner or operator of a Group 1 storage vessel subject to the provisions in § 63.660 shall keep records as specified in § 63.1065 or § 63.998, as applicable.

(vi) Each owner or operator of a Group 2 storage vessel shall keep the records specified in § 63.1065(a) of subpart WW. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(2) Each owner or operator required to report the results of performance tests under paragraphs (f) and (g)(7) of this section shall retain a record of all reported results as well as a complete test report, as described in paragraph (f)(2)(ii) of this section for each emission point tested.

(3) Each owner or operator required to continuously monitor operating parameters under § 63.644 for miscellaneous process vents or under §§ 63.652 and 63.653 for emission points in an

emissions average shall keep the records specified in paragraphs (i)(3)(i) through (i)(3)(v) of this section unless an alternative recordkeeping system has been requested and approved under paragraph (h) of this section.

(i) The monitoring system shall measure data values at least once every hour.

(ii) The owner or operator shall record either:

(A) Each measured data value; or

(B) Block average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values; or

(C) All values that meet the set criteria for variation from previously recorded values using an automated data compression recording system.

(*1*) The automated data compression recording system shall be designed to:

(*i*) Measure the operating parameter value at least once every hour.

(*ii*) Record at least 24 values each day during periods of operation.

(*iii*) Record the date and time when monitors are turned off or on.

(*iv*) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident.

(*v*) Compute daily average values of the monitored operating parameter based on recorded data.

(*2*) You must maintain a record of the description of the monitoring system and data compression recording system including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all criteria of paragraph (i)(3)(ii)(C)(*1*) of this section.

(iii) Daily average values of each continuously monitored parameter shall be calculated for each operating day and retained for 5 years except as specified in paragraph (i)(3)(iv) of this section.

(A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per day if operation is not continuous.

(B) The operating day shall be the period defined in the Notification of Compliance Status report. It may be from midnight to midnight or another daily period.

(iv) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status report, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that day. For these days, the records required in paragraph (i)(3)(ii) of this section shall also be retained for 5 years.

(v) Monitoring data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.

(4) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and either directly to the atmosphere or to a control device that does not comply with the requirements in §63.643(a), the owner or operator shall keep a record of the information specified in either paragraph (i)(4)(i) or (ii) of this section, as applicable.

(i) The owner or operator shall maintain records of periods when flow was detected in the bypass line, including the date and time and the duration of the flow in the bypass line. For each flow event, the owner or operator shall maintain records sufficient to determine whether or not the detected flow included flow of a Group 1 miscellaneous process vent stream requiring control. For periods when the Group 1 miscellaneous process vent stream requiring control is diverted from the control device and released either directly to the atmosphere or to a control device that does not comply with

the requirements in §63.643(a), the owner or operator shall include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates.

(ii) Where a seal mechanism is used to comply with §63.644(c)(2), hourly records of flow are not required. In such cases, the owner or operator shall record the date that the monthly visual inspection of the seals or closure mechanisms is completed. The owner or operator shall also record the occurrence of all periods when the seal or closure mechanism is broken, the bypass line valve position has changed or the key for a lock-and-key type lock has been checked out. The owner or operator shall include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting mass emissions of organic HAP from the Group 1 miscellaneous process vent stream requiring control that bypassed the control device or records sufficient to demonstrate that there was no flow of a Group 1 miscellaneous process vent stream requiring control during the period.

(5) The owner or operator of a heat exchange system subject to this subpart shall comply with the recordkeeping requirements in paragraphs (i)(5)(i) through (v) of this section and retain these records for 5 years.

(i) Identification of all petroleum refinery process unit heat exchangers at the facility and the average annual HAP concentration of process fluid or intervening cooling fluid estimated when developing the Notification of Compliance Status report.

(ii) Identification of all heat exchange systems subject to the monitoring requirements in §63.654 and identification of all heat exchange systems that are exempt from the monitoring requirements according to the provisions in §63.654(b). For each heat exchange system that is subject to the monitoring requirements in §63.654, this must include identification of all heat exchangers within each heat exchange system, and, for closed-loop recirculation systems, the cooling tower included in each heat exchange system.

(iii) Results of the following monitoring data for each required monitoring event:

(A) Date/time of event.

(B) Barometric pressure.

(C) El Paso air stripping apparatus water flow milliliter/minute (ml/min) and air flow, ml/min, and air temperature, °Celsius.

(D) FID reading (ppmv).

(E) Length of sampling period.

(F) Sample volume.

(G) Calibration information identified in Section 5.4.2 of the ''Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources'' Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see §63.14).

(iv) The date when a leak was identified, the date the source of the leak was identified, and the date when the heat exchanger was repaired or taken out of service.

(v) If a repair is delayed, the reason for the delay, the schedule for completing the repair, the heat exchange exit line flow or cooling tower return line average flow rate at the monitoring location (in gallons/minute), and the estimate of potential strippable hydrocarbon emissions for each required monitoring interval during the delay of repair.

(6) All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

(7) Each owner or operator subject to the delayed coking unit decoking operations provisions in §63.657 must maintain records specified in paragraphs (i)(7)(i) through (iii) of this section.

(i) The average pressure or temperature, as applicable, for the 5-minute period prior to venting to the atmosphere, draining, or deheading the coke drum for each cooling cycle for each coke drum.

(ii) If complying with the 60-cycle rolling average, each 60-cycle rolling average pressure or temperature, as applicable, considering all coke drum

venting events in the existing affected source.

(iii) For double-quench cooling cycles:

(A) The date, time and duration of each pre-vent draining event.

(B) The pressure or temperature of the coke drum vessel, as applicable, for the 5-minute period prior to the pre-vent draining.

(C) The drain water temperature at 1-minute intervals from the start of pre-vent draining to the complete closure of the drain valve.

(8) For fenceline monitoring systems subject to § 63.658, each owner or operator shall keep the records specified in paragraphs (i)(8)(i) through (x) of this section on an ongoing basis.

(i) Coordinates of all passive monitors, including replicate samplers and field blanks, and if applicable, the meteorological station. The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(ii) The start and stop times and dates for each sample, as well as the tube identifying information.

(iii) Sampling period average temperature and barometric pressure measurements.

(iv) For each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part, the sampler location of and the concentration of the outlier and the evidence used to conclude that the result is an outlier.

(v) For samples that will be adjusted for a background, the location of and the concentration measured simultaneously by the background sampler, and the perimeter samplers to which it applies.

(vi) Individual sample results, the calculated Δc for benzene for each sampling period and the two samples used to determine it, whether background correction was used, and the annual average Δc calculated after each sampling period.

(vii) Method detection limit for each sample, including co-located samples and blanks.

(viii) Documentation of corrective action taken each time the action level was exceeded.

(ix) Other records as required by Methods 325A and 325B of appendix A of this part.

(x) If a near-field source correction is used as provided in § 63.658(i), records of hourly meteorological data, including temperature, barometric pressure, wind speed and wind direction, calculated daily unit vector wind direction and daily sigma theta, and other records specified in the site-specific monitoring plan.

(9) For each flare subject to § 63.670, each owner or operator shall keep the records specified in paragraphs (i)(9)(i) through (xii) of this section up-to-date and readily accessible, as applicable.

(i) Retain records of the output of the monitoring device used to detect the presence of a pilot flame as required in § 63.670(b) for a minimum of 2 years. Retain records of each 15-minute block during which there was at least one minute that no pilot flame is present when regulated material is routed to a flare for a minimum of 5 years.

(ii) Retain records of daily visible emissions observations or video surveillance images required in § 63.670(h) as specified in the paragraphs (i)(9)(ii)(A) through (C), as applicable, for a minimum of 3 years.

(A) If visible emissions observations are performed using Method 22 at 40 CFR part 60, appendix A–7, the record must identify whether the visible emissions observation was performed, the results of each observation, total duration of observed visible emissions, and whether it was a 5-minute or 2-hour observation. If the owner or operator performs visible emissions observations more than one time during a day, the record must also identify the date and time of day each visible emissions observation was performed.

(B) If video surveillance camera is used, the record must include all video surveillance images recorded, with time and date stamps.

(C) For each 2 hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours, the record must include the date and

time of the 2 hour period and an estimate of the cumulative number of minutes in the 2 hour period for which emissions were visible.

(iii) The 15-minute block average cumulative flows for flare vent gas and, if applicable, total steam, perimeter assist air, and premix assist air specified to be monitored under § 63.670(i), along with the date and time interval for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and premix assist air, retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, retain records of the 15-minute block average temperature, pressure and molecular weight of the flare vent gas or assist gas stream for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

(iv) The flare vent gas compositions specified to be monitored under § 63.670(j). Retain records of individual component concentrations from each compositional analyses for a minimum of 2 years. If NHVvg analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years.

(v) Each 15-minute block average operating parameter calculated following the methods specified in § 63.670(k) through (n), as applicable.

(vi) On and after April 4, 2024, for pressure-assisted flares, retain records of pressure and valve positions as required in § 63.670(d)(3) for a minimum of 2 years, records of when valve position was not correct for measured pressure for 5 years, and records of a cross-light performance demonstration as specified in § 63.670(b)(2) for 5 years.

(vii) All periods during which operating values are outside of the applicable operating limits specified in § 63.670(d) through (f) when regulated material is being routed to the flare.

(viii) All periods during which the owner or operator does not perform flare monitoring according to the procedures in § 63.670(g) through (j).

(ix) Records of periods when there is flow of vent gas to the flare, but when there is no flow of regulated material to the flare, including the start and stop time and dates of periods of no regulated material flow.

(x) Records when the flow of vent gas exceeds the smokeless capacity of the flare, including start and stop time and dates of the flaring event.

(xi) Records of the root cause analysis and corrective action analysis conducted as required in § 63.670(o)(3), including an identification of the affected facility, the date and duration of the event, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under § 63.670(o)(5)(i).

(xii) For any corrective action analysis for which implementation of corrective actions are required in § 63.670(o)(5), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(10) [Reserved]

(11) For each pressure relief device subject to the pressure release management work practice standards in § 63.648(j)(3), the owner or operator shall keep the records specified in paragraphs (i)(11)(i) through (iii) of this section. For each pilot-operated pressure relief device subject to the requirements at § 63.648(j)(4)(ii), the owner or operator shall keep the records specified in paragraph (i)(11)(iv) of this section.

(i) Records of the prevention measures implemented as required in § 63.648(j)(3)(ii), if applicable.

(ii) Records of the number of releases during each calendar year and, prior to June 3, 2024, the number of those releases for which the root cause was determined to be a force majeure event.

Keep these records for the current calendar year and the past five calendar years.

(iii) For each release to the atmosphere, the owner or operator shall keep the records specified in paragraphs (i)(11)(iii)(A) through (D) of this section.

(A) The start and end time and date of each pressure release to the atmosphere.

(B) Records of any data, assumptions, and calculations used to estimate of the mass quantity of each organic HAP released during the event.

(C) Records of the root cause analysis and corrective action analysis conducted as required in §63.648(j)(3)(iii), including an identification of the affected facility, the date and duration of the event, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under §63.648(j)(7)(i).

(D) For any corrective action analysis for which implementation of corrective actions are required in §63.648(j)(7), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(iv) For pilot-operated pressure relief devices, general or release-specific records for estimating the quantity of VOC released from the pilot vent during a release event, and records of calculations used to determine the quantity of specific HAP released for any event or series of events in which 72 or more pounds of VOC are released in a day.

(12) For each maintenance vent opening subject to the requirements in §63.643(c), the owner or operator shall keep the applicable records specified in paragraphs (i)(12)(i) through (vi) of this section.

(i) The owner or operator shall maintain standard site procedures used to deinventory equipment for safety purposes (*e.g.*, hot work or vessel entry procedures) to document the procedures used to meet the requirements in §63.643(c). The current copy of the procedures shall be retained and available on-site at all times. Previous versions of the standard site procedures, is applicable, shall be retained for five years.

(ii) If complying with the requirements of §63.643(c)(1)(i) and the concentration of the vapor at the time of the vessel opening exceeds 10 percent of its LEL, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and the concentration of the vapor at the time of the vessel opening.

(iii) If complying with the requirements of §63.643(c)(1)(ii) and either the vessel pressure at the time of the vessel opening exceeds 5 psig or the concentration of the vapor at the time of the active purging was initiated exceeds 10 percent of its LEL, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, the pressure of the vessel or equipment at the time of discharge to the atmosphere and, if applicable, the concentration of the vapors in the equipment when active purging was initiated.

(iv) If complying with the requirements of §63.643(c)(1)(iii), records used to estimate the total quantity of VOC in the equipment and the type and size limits of equipment that contain less than 72 pounds of VOC at the time of maintenance vent opening. For each maintenance vent opening for which the deinventory procedures specified in paragraph (i)(12)(i) of this section are not followed or for which the equipment opened exceeds the type and size limits established in the records specified in this paragraph, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere.

(v) If complying with the requirements of §63.643(c)(1)(iv), identification of the maintenance vent, the process units or equipment associated with the

maintenance vent, records documenting the lack of a pure hydrogen supply, the date of maintenance vent opening, and the concentration of the vapors in the equipment at the time of discharge to the atmosphere for each applicable maintenance vent opening.

(vi) If complying with the requirements of § 63.643(c)(1)(v), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, records documenting actions taken to comply with other applicable alternatives and why utilization of this alternative was required, the date of maintenance vent opening, the equipment pressure and concentration of the vapors in the equipment at the time of discharge, an indication of whether active purging was performed and the pressure of the equipment during the installation or removal of the blind if active purging was used, the duration the maintenance vent was open during the blind installation or removal process, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere for each applicable maintenance vent opening.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29881, June 12, 1996; 63 FR 44141, Aug. 18, 1998. Redesignated and amended at 74 FR 55686, 55687, Oct. 28, 2009; 75 FR 37731, June 30, 2010; 78 FR 37148, June 20, 2013; 80 FR 75246, Dec. 1, 2015; 81 FR 45241, July 13, 2016; 83 FR 60715, Nov. 26, 2018; 85 FR 6083, Feb. 4, 2020; 89 FR 23858, Apr. 4, 2024]

§ 63.656 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.640, 63.642(g) through (l), 63.643, 63.646 through 63.652, 63.654, 63.657 through 63.660, and 63.670. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37351, June 23, 2003. Redesignated and amended at 74 FR 55686, 55688, Oct. 28, 2009; 80 FR 75253, Dec. 1, 2015]

§ 63.657 Delayed coking unit decoking operation standards.

(a) Except as provided in paragraphs (e) and (f) of this section, each owner or operator of a delayed coking unit shall depressure each coke drum to a closed blowdown system until the coke drum vessel pressure or temperature measured at the top of the coke drum or in the overhead line of the coke drum as near as practical to the coke drum meets the applicable limits specified in paragraph (a)(1) or (2) of this section prior to venting to the atmosphere, draining or deheading the coke drum at the end of the cooling cycle.

(1) For delayed coking units at an existing affected source, meet either:

(i) An average vessel pressure of 2 psig or less determined on a rolling 60-event average; or

(ii) An average vessel temperature of 220 degrees Fahrenheit or less determined on a rolling 60-event average.

(2) For delayed coking units at a new affected source, meet either:

(i) A vessel pressure of 2.0 psig or less for each decoking event; or

(ii) A vessel temperature of 218 degrees Fahrenheit or less for each decoking event.

(b) Each owner or operator of a delayed coking unit complying with the pressure limits in paragraph (a)(1)(i) or (a)(2)(i) of this section shall install, operate, calibrate, and maintain a monitoring system, as specified in paragraphs (b)(1) through (5) of this section, to determine the coke drum vessel pressure.

(1) The pressure monitoring system must be in a representative location (at the top of the coke drum or in the overhead line as near as practical to the coke drum) that minimizes or eliminates pulsating pressure, vibration, and, to the extent practical, internal and external corrosion.

(2) The pressure monitoring system must be capable of measuring a pressure of 2.0 psig within ±0.5 psig.

(3) The pressure monitoring system must be verified annually or at the frequency recommended by the instrument manufacturer. The pressure monitoring system must be verified following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale.

(4) All components of the pressure monitoring system must be visually inspected for integrity, oxidation and galvanic corrosion every 3 months, unless the system has a redundant pressure sensor.

(5) The output of the pressure monitoring system must be reviewed each day the unit is operated to ensure that the pressure readings fluctuate as expected between operating and cooling/decoking cycles to verify the pressure taps are not plugged. Plugged pressure taps must be unplugged or otherwise repaired prior to the next operating cycle.

(c) Each owner or operator of a delayed coking unit complying with the temperature limits in paragraph (a)(1)(ii) or (a)(2)(ii) of this section shall install, operate, calibrate, and maintain a continuous parameter monitoring system to measure the coke drum vessel temperature (at the top of the coke drum or in the overhead line as near as practical to the coke drum) according to the requirements specified in table 13 of this subpart.

(d) The owner or operator of a delayed coking unit shall determine the coke drum vessel pressure or temperature, as applicable, on a 5-minute rolling average basis while the coke drum is vented to the closed blowdown system and shall use the last complete 5-minute rolling average pressure or temperature just prior to initiating steps to isolate the coke drum prior to venting, draining or deheading to demonstrate compliance with the requirements in paragraph (a) of this section. Pressure or temperature readings after initiating steps to isolate the coke drum from the closed blowdown system just prior to atmospheric venting, draining, or deheading the coke drum shall not be used in determining the average coke drum vessel pressure or temperature for the purpose of compliance with the requirements in paragraph (a) of this section.

(e) The owner or operator of a delayed coking unit using the ''water overflow'' method of coke cooling prior to complying with the applicable requirements in paragraph (a) of this section must meet the requirements in either paragraph (e)(1) or (e)(2) of this section or, if applicable, the requirements in paragraph (e)(3) of this section. The owner or operator of a delayed coking unit using the ''water overflow'' method of coke cooling subject to this paragraph shall determine the coke drum vessel temperature as specified in paragraphs (c) and (d) of this section and shall not otherwise drain or vent the coke drum until the coke drum vessel temperature is at or below the applicable limits in paragraph (a)(1)(ii) or (a)(2)(ii) of this section.

(1) The overflow water must be directed to a separator or similar disengaging device that is operated in a

manner to prevent entrainment of gases from the coke drum vessel to the overflow water storage tank. Gases from the separator or disengaging device must be routed to a closed blowdown system or otherwise controlled following the requirements for a Group 1 miscellaneous process vent. The liquid from the separator or disengaging device must be hardpiped to the overflow water storage tank or similarly transported to prevent exposure of the overflow water to the atmosphere. The overflow water storage tank may be an open or uncontrolled fixed-roof tank provided that a submerged fill pipe (pipe outlet below existing liquid level in the tank) is used to transfer overflow water to the tank.

(2) The overflow water must be directed to a storage vessel meeting the requirements for storage vessels in subpart SS of this part.

(3) Prior to November 26, 2020, if the equipment needed to comply with paragraphs (e)(1) or (2) of this section are not installed and operational, you must comply with all of the requirements in paragraphs (e)(3)(i) through (iv) of this section.

(i) The temperature of the coke drum, measured according to paragraph (c) of this section, must be 250 degrees Fahrenheit or less prior to initiation of water overflow and at all times during the water overflow.

(ii) The overflow water must be hardpiped to the overflow water storage tank or similarly transported to prevent exposure of the overflow water to the atmosphere.

(iii) The overflow water storage tank may be an open or uncontrolled fixed-roof tank provided that all of the following requirements are met.

(A) A submerged fill pipe (pipe outlet below existing liquid level in the tank) is used to transfer overflow water to the tank.

(B) The liquid level in the storage tank is at least 6 feet above the submerged fill pipe outlet at all times during water overflow.

(C) The temperature of the contents in the storage tank remain below 150 degrees Fahrenheit at all times during water overflow.

(f) The owner or operator of a delayed coking unit may partially drain a coke drum prior to achieving the applicable limits in paragraph (a) of this section in order to double-quench a coke drum that did not cool adequately using the normal cooling process steps provided that the owner or operator meets the conditions in paragraphs (f)(1) and (2) of this section.

(1) The owner or operator shall install, operate, calibrate, and maintain a continuous parameter monitoring system to measure the drain water temperature at the bottom of the coke drum or in the drain line as near as practical to the coke drum according to the requirements specified in table 13 of this subpart.

(2) The owner or operator must maintain the drain water temperature below 210 degrees Fahrenheit during the partial drain associated with the double-quench event.

[80 FR 75253, Dec. 1, 2015, as amended at 83 FR 60718, Nov. 26, 2018]

§ 63.658 Fenceline monitoring provisions.

(a) The owner or operator shall conduct sampling along the facility property boundary and analyze the samples in accordance with Methods 325A and 325B of appendix A of this part and paragraphs (b) through (k) of this section.

(b) The target analyte is benzene.

(c) The owner or operator shall determine passive monitor locations in accordance with Section 8.2 of Method 325A of appendix A of this part.

(1) As it pertains to this subpart, known sources of VOCs, as used in Section 8.2.1.3 in Method 325A of appendix A of this part for siting passive monitors, means a wastewater treatment unit, process unit, or any emission source requiring control according to the requirements of this subpart, including marine vessel loading operations. For marine vessel loading operations, one passive monitor should be sited on the shoreline adjacent to the dock. For this subpart, an additional monitor is not required if the only emission sources within 50 meters of the monitoring boundary are equipment leak sources satisfying all of the conditions in paragraphs (c)(1)(i) through (iv) of this section.

(i) The equipment leak sources in organic HAP service within 50 meters of the monitoring boundary are limited to valves, pumps, connectors, sampling connections, and open-ended lines. If compressors, pressure relief devices, or agitators in organic HAP service are present within 50 meters of the monitoring boundary, the additional passive monitoring location specified in Section 8.2.1.3 in Method 325A of appendix A of this part must be used.

(ii) All equipment leak sources in gas or light liquid service (and in organic HAP service), including valves, pumps, connectors, sampling connections and open-ended lines, must be monitored using EPA Method 21 of 40 CFR part 60, appendix A–7 no less frequently than quarterly with no provisions for skip period monitoring, or according to the provisions of §63.11(c) Alternative Work practice for monitoring equipment for leaks. For the purpose of this provision, a leak is detected if the instrument reading equals or exceeds the applicable limits in paragraphs (c)(1)(ii)(A) through (E) of this section:

(A) For valves, pumps or connectors at an existing source, an instrument reading of 10,000 ppmv.

(B) For valves or connectors at a new source, an instrument reading of 500 ppmv.

(C) For pumps at a new source, an instrument reading of 2,000 ppmv.

(D) For sampling connections or open-ended lines, an instrument reading of 500 ppmv above background.

(E) For equipment monitored according to the Alternative Work practice for monitoring equipment for leaks, the leak definitions contained in §63.11 (c)(6)(i) through (iii).

(iii) All equipment leak sources in organic HAP service, including sources in gas, light liquid and heavy liquid service, must be inspected using visual, audible, olfactory, or any other detection method at least monthly. A leak is detected if the inspection identifies a potential leak to the atmosphere or if there are indications of liquids dripping.

(iv) All leaks identified by the monitoring or inspections specified in paragraphs (c)(1)(ii) or (iii) of this section must be repaired no later than 15 calendar days after it is detected with no provisions for delay of repair. If a repair is not completed within 15 calendar days, the additional passive monitor specified in Section 8.2.1.3 in Method 325A of appendix A of this part must be used.

(2) The owner or operator may collect one or more background samples if the owner or operator believes that an offsite upwind source or an onsite source excluded under §63.640(g) may influence the sampler measurements. If the owner or operator elects to collect one or more background samples, the owner or operator must develop and submit a site-specific monitoring plan for approval according to the requirements in paragraph (i) of this section. Upon approval of the site-specific monitoring plan, the background sampler(s) should be operated co-currently with the routine samplers.

(3) If there are 19 or fewer monitoring locations, the owner or operator shall collect at least one co-located duplicate sample per sampling period and at least one field blank per sampling period. If there are 20 or more monitoring locations, the owner or operator shall collect at least two co-located duplicate samples per sampling period and at least one field blank per sampling period. The co-located duplicates may be collected at any of the perimeter sampling

(4) The owner or operator shall follow the procedure in Section 9.6 of Method 325B of appendix A of this part to determine the detection limit of benzene for each sampler used to collect samples, background samples (if the owner or operator elects to do so), co-located samples and blanks.

(d) The owner or operator shall collect and record meteorological data according to the applicable requirements in paragraphs (d)(1) through (3) of this section.

(1) If a near-field source correction is used as provided in paragraph (i)(2) of this section or if an alternative test method is used that provides time-resolved measurements, the owner or operator shall:

(i) Use an on-site meteorological station in accordance with Section 8.3 of Method 325A of appendix A of this part.

(ii) Collect and record hourly average meteorological data, including temperature, barometric pressure, wind speed and wind direction and calculate daily unit vector wind direction and daily sigma theta.

(2) For cases other than those specified in paragraph (d)(1) of this section, the owner or operator shall collect and record sampling period average temperature and barometric pressure using either an on-site meteorological station in accordance with Section 8.3.1 through 8.3.3 of Method 325A of appendix A of this part or, alternatively, using data from a United States Weather Service (USWS) meteorological station provided the USWS meteorological station is within 40 kilometers (25 miles) of the refinery.

(3) If an on-site meteorological station is used, the owner or operator shall follow the calibration and standardization procedures for meteorological measurements in EPA–454/B–08–002 (incorporated by reference—see § 63.14).

(e) The owner or operator shall use a sampling period and sampling frequency as specified in paragraphs (e)(1) through (3) of this section.

(1) *Sampling period.* A 14-day sampling period shall be used, unless a shorter sampling period is determined to be necessary under paragraph (g) or (i) of this section. A sampling period is defined as the period during which sampling tube is deployed at a specific sampling location with the diffusive sampling end cap in-place and does not include the time required to analyze the sample. For the purpose of this subpart, a 14-day sampling period may be no shorter than 13 calendar days and no longer than 15 calendar days, but the routine sampling period shall be 14 calendar days.

(2) *Base sampling frequency.* Except as provided in paragraph (e)(3) of this section, the frequency of sample collection shall be once each contiguous 14-day sampling period, such that the beginning of the next 14-day sampling period begins immediately upon the completion of the previous 14-day sampling period.

(3) *Alternative sampling frequency for burden reduction.* When an individual monitor consistently achieves results at or below 0.9 μg/m^3, the owner or operator may elect to use the applicable minimum sampling frequency specified in paragraphs (e)(3)(i) through (v) of this section for that monitoring site. When calculating Δc for the monitoring period when using this alternative for burden reduction, zero shall be substituted for the sample result for the monitoring site for any period where a sample is not taken.

(i) If every sample at a monitoring site is at or below 0.9 μg/m^3 for 2 years (52 consecutive samples), every other sampling period can be skipped for that monitoring site, *i.e.*, sampling will occur approximately once per month.

(ii) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(i) of this section is at or below 0.9 μg/m^3 for 2 years (*i.e.*, 26 consecutive ''monthly'' samples), five 14-day sampling periods can be skipped for that monitoring site following each period of sampling, *i.e.*, sampling will occur approximately once per quarter.

(iii) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(ii) of this section is at or below 0.9 μg/m^3 for 2 years (*i.e.*, 8 consecutive quarterly samples), twelve 14-day sampling periods can be skipped for that monitoring site following each period of sampling, *i.e.*, sampling will occur twice a year.

(iv) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(iii) of this section is at or below 0.9 μg/m^3 for 2 years (*i.e.*, 4 consecutive semiannual samples), only one sample per year is required for that monitoring site. For yearly sampling, samples shall occur at least 10 months but no more than 14 months apart.

(v) If at any time a sample for a monitoring site that is monitored at the frequency specified in paragraphs (e)(3)(i) through (iv) of this section returns a result that is above 0.9 μg/m^3, the sampling site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for one quarter (six 14-day sampling periods). If every sample collected during this quarter is at or below 0.9 μg/m^3 , the owner or operator may revert back to the reduced monitoring schedule applicable for that

monitoring site prior to the sample reading exceeding 0.9 μg/m^3 If any sample collected during this quarter is above 0.9 μg/m^3, that monitoring site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for a minimum of two years. The burden reduction requirements can be used again for that monitoring site once the requirements of paragraph (e)(3)(i) of this section are met again, *i.e.*, after 52 contiguous 14-day samples with no results above 0.9 μg/m^3 .

(f) Within 45 days of completion of each sampling period, the owner or operator shall determine whether the results are above or below the action level as follows:

(1) The owner or operator shall determine the facility impact on the benzene concentration (Δc) for each 14-day sampling period according to either paragraph (f)(1)(i) or (ii) of this section, as applicable.

(i) Except when near-field source correction is used as provided in paragraph (i) of this section, the owner or operator shall determine the highest and lowest sample results for benzene concentrations from the sample pool and calculate Δc as the difference in these concentrations. Co-located samples must be averaged together for the purposes of determining the benzene concentration for that sampling location, and, if applicable, for determining Δc. The owner or operator shall adhere to the following procedures when one or more samples for the sampling period are below the method detection limit for benzene:

(A) If the lowest detected value of benzene is below detection, the owner or operator shall use zero as the lowest sample result when calculating Δc.

(B) If all sample results are below the method detection limit, the owner or operator shall use the method detection limit as the highest sample result and zero as the lowest sample result when calculating Δc.

(ii) When near-field source correction is used as provided in paragraph (i) of this section, the owner or operator shall determine Δc using the calculation protocols outlined in the approved site-specific monitoring plan and in paragraph (i) of this section.

(2) The owner or operator shall calculate the annual average Δc based on the average of the 26 most recent 14-day sampling periods. The owner or operator shall update this annual average value after receiving the results of each subsequent 14-day sampling period.

(3) The action level for benzene is 9 micrograms per cubic meter (μg/m3) on an annual average basis. If the annual average Δc value for benzene is less than or equal to 9 μg/m^3, the concentration is below the action level. If the annual average Δc value for benzene is greater than 9 μg/m^3, the concentration is above the action level, and the owner or operator shall conduct a root cause analysis and corrective action in accordance with paragraph (g) of this section.

(g) Within 5 days of determining that the action level has been exceeded for any annual average Δc and no longer than 50 days after completion of the sampling period, the owner or operator shall initiate a root cause analysis to determine the cause of such exceedance and to determine appropriate corrective action, such as those described in paragraphs (g)(1) through (4) of this section. The root cause analysis and initial corrective action analysis shall be completed and initial corrective actions taken no later than 45 days after determining there is an exceedance. Root cause analysis and corrective action may include, but is not limited to:

(1) Leak inspection using Method 21 of part 60, appendix A–7 of this chapter and repairing any leaks found.

(2) Leak inspection using optical gas imaging and repairing any leaks found.

(3) Visual inspection to determine the cause of the high benzene emissions and implementing repairs to reduce the level of emissions.

(4) Employing progressively more frequent sampling, analysis and meteorology (*e.g.*, using shorter sampling periods for Methods 325A and 325B of appendix A of this part, or using active sampling techniques).

(h) If, upon completion of the corrective action analysis and corrective actions such as those described in paragraph (g) of this section, the Δc value for the next 14-day sampling period for which the sampling start time begins

after the completion of the corrective actions is greater than 9 μg/m³ or if all corrective action measures identified require more than 45 days to implement, the owner or operator shall develop a corrective action plan that describes the corrective action(s) completed to date, additional measures that the owner or operator proposes to employ to reduce fenceline concentrations below the action level, and a schedule for completion of these measures. The owner or operator shall submit the corrective action plan to the Administrator within 60 days after receiving the analytical results indicating that the Δc value for the 14-day sampling period following the completion of the initial corrective action is greater than 9 μg/m³ or, if no initial corrective actions were identified, no later than 60 days following the completion of the corrective action analysis required in paragraph (g) of this section.

(i) An owner or operator may request approval from the Administrator for a site-specific monitoring plan to account for offsite upwind sources or onsite sources excluded under § 63.640(g) according to the requirements in paragraphs (i)(1) through (4) of this section.

(1) The owner or operator shall prepare and submit a site-specific monitoring plan and receive approval of the site-specific monitoring plan prior to using the near-field source alternative calculation for determining Δc provided in paragraph (i)(2) of this section. The site-specific monitoring plan shall include, at a minimum, the elements specified in paragraphs (i)(1)(i) through (v) of this section. The procedures in Section 12 of Method 325A of appendix A of this part are not required, but may be used, if applicable, when determining near-field source contributions.

(i) Identification of the near-field source or sources. For onsite sources, documentation that the onsite source is excluded under § 63.640(g) and identification of the specific provision in § 63.640(g) that applies to the source.

(ii) Location of the additional monitoring stations that shall be used to determine the uniform background concentration and the near-field source concentration contribution.

(iii) Identification of the fenceline monitoring locations impacted by the near-field source. If more than one near-field source is present, identify the near-field source or sources that are expected to contribute to the concentration at that monitoring location.

(iv) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location.

(v) If more frequent monitoring or a monitoring station other than a passive diffusive tube monitoring station is proposed, provide a detailed description of the measurement methods, measurement frequency, and recording frequency for determining the uniform background or near-field source concentration contribution.

(2) When an approved site-specific monitoring plan is used, the owner or operator shall determine Δc for comparison with the 9 μg/m³ action level using the requirements specified in paragraphs (i)(2)(i) through (iii) of this section.

(i) For each monitoring location, calculate Δc_i using the following equation.

$$\Delta c_i = MFC_i - NFS_i - UB$$

Where:

Δc_i = The fenceline concentration, corrected for background, at measurement location i, micrograms per cubic meter (μg/m³).

MFC_i = The measured fenceline concentration at measurement location i, μg/m³.

NFS_i = The near-field source contributing concentration at measurement location i determined using the additional measurements and calculation procedures included in the site-specific monitoring plan, μg/m³. For monitoring locations that are not included in the site-specific monitoring plan as impacted by a near-field source, use $NFS_i = 0$ μg/m³.

UB = The uniform background concentration determined using the additional measurements included in the site-specific monitoring plan, μg/m³. If no additional measurements are specified in the site-specific monitoring plan for determining the uniform background concentration, use UB = 0 μg/m³.

(ii) When one or more samples for the sampling period are below the method detection limit for benzene, adhere to the following procedures:

(A) If the benzene concentration at the monitoring location used for the uniform background concentration is below the method detection limit, the owner or operator shall use zero for UB for that monitoring period.

(B) If the benzene concentration at the monitoring location(s) used to determine the near-field source contributing concentration is below the method detection limit, the owner or operator shall use zero for the monitoring location concentration when calculating NFS_i for that monitoring period.

(C) If a fenceline monitoring location sample result is below the method detection limit, the owner or operator shall use the method detection limit as the sample result.

(iii) Determine Δc for the monitoring period as the maximum value of Δc_i from all of the fenceline monitoring locations for that monitoring period.

(3) The site-specific monitoring plan shall be submitted and approved as described in paragraphs (i)(3)(i) through (iv) of this section.

(i) The site-specific monitoring plan must be submitted to the Administrator for approval.

(ii) The site-specific monitoring plan shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143–01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to *refineryrtr@epa.gov*.

(iii) The Administrator shall approve or disapprove the plan in 90 days. The plan shall be considered approved if the Administrator either approves the plan in writing, or fails to disapprove the plan in writing. The 90-day period shall begin when the Administrator receives the plan.

(iv) If the Administrator finds any deficiencies in the site-specific monitoring plan and disapproves the plan in writing, the owner or operator may revise and resubmit the site-specific monitoring plan following the requirements in paragraphs (i)(3)(i) and (ii) of this section. The 90-day period starts over with the resubmission of the revised monitoring plan.

(4) The approval by the Administrator of a site-specific monitoring plan will be based on the completeness, accuracy and reasonableness of the request for a site-specific monitoring plan. Factors that the Administrator will consider in reviewing the request for a site-specific monitoring plan include, but are not limited to, those described in paragraphs (i)(4)(i) through (v) of this section.

(i) The identification of the near-field source or sources. For onsite sources, the documentation provided that the onsite source is excluded under § 63.640(g).

(ii) The monitoring location selected to determine the uniform background concentration or an indication that no uniform background concentration monitor will be used.

(iii) The location(s) selected for additional monitoring to determine the near-field source concentration contribution.

(iv) The identification of the fenceline monitoring locations impacted by the near-field source or sources.

(v) The appropriateness of the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location.

(vi) If more frequent monitoring is proposed, the adequacy of the description of the measurement and recording frequency proposed and the adequacy of the rationale for using the alternative monitoring frequency.

(j) The owner or operator shall comply with the applicable recordkeeping and reporting requirements in § 63.655(h) and (i).

(k) As outlined in § 63.7(f), the owner or operator may submit a request for an alternative test method. At a minimum, the request must follow the requirements outlined in paragraphs (k)(1) through (7) of this section.

(1) The alternative method may be used in lieu of all or a partial number of passive samplers required in Method 325A of appendix A of this part.

(2) The alternative method must be validated according to Method 301 in

appendix A of this part or contain performance based procedures and indicators to ensure self-validation.

(3) The method detection limit must nominally be at least an order of magnitude below the action level, *i.e.*, 0.9 $\mu g/m^3$ benzene. The alternate test method must describe the procedures used to provide field verification of the detection limit.

(4) The spatial coverage must be equal to or better than the spatial coverage provided in Method 325A of appendix A of this part.

(i) For path average concentration open-path instruments, the physical path length of the measurement shall be no more than a passive sample footprint (the spacing that would be provided by the sorbent traps when following Method 325A). For example, if Method 325A requires spacing monitors A and B 610 meters (2000 feet) apart, then the physical path length limit for the measurement at that portion of the fenceline shall be no more than 610 meters (2000 feet).

(ii) For range resolved open-path instrument or approach, the instrument or approach must be able to resolve an average concentration over each passive sampler footprint within the path length of the instrument.

(iii) The extra samplers required in Sections 8.2.1.3 of Method 325A may be omitted when they fall within the path length of an open-path instrument.

(5) At a minimum, non-integrating alternative test methods must provide a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(6) For alternative test methods capable of real time measurements (less than a 5 minute sampling and analysis cycle), the alternative test method may allow for elimination of data points corresponding to outside emission sources for purpose of calculation of the high point for the two week average. The alternative test method approach must have wind speed, direction and stability class of the same time resolution and within the footprint of the instrument.

(7) For purposes of averaging data points to determine the Δc for the 14-day average high sample result, all results measured under the method detection limit must use the method detection limit. For purposes of averaging data points for the 14-day average low sample result, all results measured under the method detection limit must use zero.

[80 FR 75254, Dec. 1, 2015, as amended at 81 FR 45241, July 13, 2016; 83 FR 60718, Nov. 26, 2018]

§ 63.660 Storage vessel provisions.

On and after the applicable compliance date for a Group 1 storage vessel located at a new or existing source as specified in § 63.640(h), the owner or operator of a Group 1 storage vessel storing liquid with a maximum true vapor pressure less than 76.6 kilopascals (11.1 pounds per square inch) that is part of a new or existing source shall comply with either the requirements in subpart WW or SS of this part according to the requirements in paragraphs (a) through (i) of this section and the owner or operator of a Group 1 storage vessel storing liquid with a maximum true vapor pressure greater than or equal to 76.6 kilopascals (11.1 pounds per square inch) that is part of a new or existing source shall comply with the requirements in subpart SS of this part according to the requirements in paragraphs (a) through (i) of this section.

(a) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A, WW, or SS of this part. The definitions of ''Group 1 storage vessel'' (paragraph (2)) and ''Storage vessel'' in § 63.641 shall apply in lieu of the definition of ''Storage vessel'' in § 63.1061.

(1) An owner or operator may use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.

(2) When an owner or operator and the Administrator do not agree on whether the annual average weight percent organic HAP in the stored liquid is above or below 4 percent for a storage vessel at an existing source or above or below 2 percent for a storage vessel at a new source, an appropriate

method (based on the type of liquid stored) as published by EPA or a consensus-based standards organization shall be used. Consensus-based standards organizations include, but are not limited to, the following: ASTM International (100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428–B2959, (800) 262–1373, *http://www.astm.org*), the American National Standards Institute (ANSI, 1819 L Street NW., 6th Floor, Washington, DC 20036, (202) 293–8020, *http://www.ansi.org*), the American Gas Association (AGA, 400 North Capitol Street NW., 4th Floor, Washington, DC 20001, (202) 824–7000, *http://www.aga.org*), the American Society of Mechanical Engineers (ASME, Three Park Avenue, New York, NY 10016–5990, (800) 843–2763, *http://www.asme.org*), the American Petroleum Institute (API, 1220 L Street NW., Washington, DC 20005–4070, (202) 682–8000, *http://www.api.org*), and the North American Energy Standards Board (NAESB, 801 Travis Street, Suite 1675, Houston, TX 77002, (713) 356–0060, *http://www.naesb.org*).

(b) A floating roof storage vessel complying with the requirements of subpart WW of this part may comply with the control option specified in paragraph (b)(1) of this section and, if equipped with a ladder having at least one slotted leg, shall comply with one of the control options as described in paragraph (b)(2) of this section. If the floating roof storage vessel does not meet the requirements of § 63.1063(a)(2)(i) through (a)(2)(viii) as of June 30, 2014, these requirements do not apply until the next time the vessel is completely emptied and degassed, or January 30, 2026, whichever occurs first.

(1) In addition to the options presented in §§ 63.1063(a)(2)(viii)(A) and (B) and 63.1064, a floating roof storage vessel may comply with § 63.1063(a)(2)(viii) using a flexible enclosure device and either a gasketed or welded cap on the top of the guidepole.

(2) Each opening through a floating roof for a ladder having at least one slotted leg shall be equipped with one of the configurations specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) A pole float in the slotted leg and pole wipers for both legs. The wiper or seal of the pole float must be at or above the height of the pole wiper.

(ii) A ladder sleeve and pole wipers for both legs of the ladder.

(iii) A flexible enclosure device and either a gasketed or welded cap on the top of the slotted leg.

(c) For the purposes of this subpart, references shall apply as specified in paragraphs (c)(1) through (6) of this section.

(1) All references to ''the proposal date for a referencing subpart'' and ''the proposal date of the referencing subpart'' in subpart WW of this part mean June 30, 2014.

(2) All references to ''promulgation of the referencing subpart'' and ''the promulgation date of the referencing subpart'' in subpart WW of this part mean February 1, 2016.

(3) All references to ''promulgation date of standards for an affected source or affected facility under a referencing subpart'' in subpart SS of this part mean February 1, 2016.

(4) All references to ''the proposal date of the relevant standard established pursuant to CAA section 112(f)'' in subpart SS of this part mean June 30, 2014.

(5) All references to ''the proposal date of a relevant standard established pursuant to CAA section 112(d)'' in subpart SS of this part mean July 14, 1994.

(6) All references to the ''required control efficiency'' in subpart SS of this part mean reduction of organic HAP emissions by 95 percent or to an outlet concentration of 20 ppmv.

(d) For an uncontrolled fixed roof storage vessel that commenced construction on or before June 30, 2014, and that meets the definition of ''Group 1 storage vessel'', paragraph (2), in § 63.641 but not the definition of ''Group 1 storage vessel'', paragraph (1), in § 63.641, the requirements of § 63.982 and/or § 63.1062 do not apply until the next time the storage vessel is completely emptied and degassed, or January 30, 2026, whichever occurs first.

(e) For storage vessels previously subject to requirements in § 63.646, initial inspection requirements in

§ 63.1063(c)(1) and (c)(2)(i) (*i.e.*, those related to the initial filling of the storage vessel) or in § 63.983(b)(1)(i)(A), as applicable, are not required. Failure to perform other inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

(f) References in § 63.1066(a) to initial startup notification requirements do not apply.

(g) References to the Notification of Compliance Status in § 63.999(b) mean the Notification of Compliance Status required by § 63.655(f).

(h) References to the Periodic Reports in §§ 63.1066(b) and 63.999(c) mean the Periodic Report required by § 63.655(g).

(i) Owners or operators electing to comply with the requirements in subpart SS of this part for a Group 1 storage vessel must comply with the requirements in paragraphs (i)(1) through (3) of this section.

(1) If a flare is used as a control device, the flare shall meet the requirements of § 63.670 instead of the flare requirements in § 63.987.

(2) If a closed vent system contains a bypass line, the owner or operator shall comply with the provisions of either § 63.983(a)(3)(i) or (ii) or paragraph (iii) of this section for each closed vent system that contains bypass lines that could divert a vent stream either directly to the atmosphere or to a control device that does not comply with the requirements in subpart SS of this part. Except as provided in paragraphs (i)(2)(i) and (ii) of this section, use of the bypass at any time to divert a Group 1 storage vessel either directly to the atmosphere or to a control device that does not comply with the requirements in subpart SS of this part is an emissions standards violation. Equipment such as low leg drains and equipment subject to § 63.648 are not subject to this paragraph (i)(2).

(i) If planned routine maintenance of the control device cannot be performed during periods that storage vessel emissions are vented to the control device or when the storage vessel is taken out of service for inspections or other planned maintenance reasons, the owner or operator may bypass the control device.

(ii) Periods for which storage vessel control device may be bypassed for planned routine maintenance of the control device shall not exceed 240 hours per calendar year.

(iii) Use a cap, blind flange, plug, or a second valve for an open-ended valve or line following the requirements specified in § 60.482–6(a)(2), (b), and (c).

(3) If storage vessel emissions are routed to a fuel gas system or process, the fuel gas system or process shall be operating at all times when regulated emissions are routed to it. The exception in § 63.984(a)(1) does not apply.

[80 FR 75257, Dec. 1, 2015, as amended at 83 FR 60719, Nov. 26, 2018; 85 FR 6083, Feb. 4, 2020]

§ 63.670 Requirements for flare control devices.

On or before January 30, 2019, the owner or operator of a flare used as a control device for an emission point subject to this subpart shall meet the applicable requirements for flares as specified in paragraphs (a) through (q) of this section and the applicable requirements in § 63.671. The owner or operator may elect to comply with the requirements of paragraph (r) of this section in lieu of the requirements in paragraphs (d) through (f) of this section, as applicable.

(a) [Reserved]

(b) *Pilot flame presence.* The owner or operator shall operate each flare with a pilot flame present on an individual burner or stage of burners at all times when regulated material is routed to the flare. Each 15-minute block during which there is at least one minute where no pilot flame on an individual burner or stage of burners is present when regulated material is routed to the flare is a deviation of the standard. Deviations in different 15-minute blocks from the same event are considered separate deviations. The owner or operator shall monitor for the presence of a pilot flame on an individual burner or stage of burners as specified in paragraph (g) of this section. Beginning on April 4, 2024, pressure-assisted flares using stages of burners that cross-light must also comply with paragraphs (b)(1) and (2) of this section.

(1) Each stage of burners that cross-lights in the pressure-assisted flare

must have at least two pilots with at least one continuously lit and capable of igniting all regulated material that is routed to that stage of burners.

(2) Unless the owner or operator of a pressure-assisted flare chooses to conduct a cross-light performance demonstration as specified in this paragraph, the owner or operator must ensure that if a stage of burners on the flare uses cross-lighting, that the distance between any two burners in series on that stage is no more than 6 feet when measured from the center of one burner to the next burner. A distance greater than 6 feet between any two burners in series may be used provided the owner or operator complies with the requirements in paragraphs (b)(2)(i) through (iii) of this section.

(i) You must conduct a performance demonstration that confirms the pressure-assisted flare will cross-light a minimum of three burners and the spacing between the burners and location of the pilot flame must be representative of the projected installation.

(ii) The compliance demonstration must be approved by the permitting authority and a copy of this approval must be maintained onsite.

(iii) The compliance demonstration report must include the information in paragraphs (b)(2)(iii)(A) through (K) of this section.

(A) A protocol describing the test methodology used, associated test method QA/QC parameters.

(B) The waste gas composition and NHVcz of the gas tested.

(C) The velocity of the waste gas tested.

(D) The pressure-assisted multi-point flare burner tip pressure.

(E) The time, length, and duration of the test.

(F) Records of whether a successful cross-light was observed over all of the burners and the length of time it took for the burners to cross-light.

(G) Records of maintaining a stable flame after a successful cross-light and the duration for which this was observed.

(H) Records of any smoking events during the cross-light.

(I) Waste gas temperature.

(J) Meteorological conditions (e.g., ambient temperature, barometric pressure, wind speed and direction, and relative humidity) during the demonstration.

(K) An indication whether there were any observed flare flameouts and if so, the number and duration of each flare flameout.

(c) *Visible emissions.* The owner or operator shall specify the smokeless design capacity of each flare and operate with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, when regulated material is routed to the flare and the flare vent gas flow rate is less than the smokeless design capacity of the flare. The owner or operator shall monitor for visible emissions from the flare as specified in paragraph (h) of this section.

(d) *Flare tip velocity.* Except as provided in paragraph (d)(3) of this section for pressure-assisted flares, for each flare, the owner or operator shall comply with either paragraph (d)(1) or (2) of this section, provided the appropriate monitoring systems are in-place, whenever regulated material is routed to the flare for at least 15-minutes and the flare vent gas flow rate is less than the smokeless design capacity of the flare.

(1) Except as provided in paragraph (d)(2) of this section, the actual flare tip velocity (V_{tip}) must be less than 60 feet per second. The owner or operator shall monitor V_{tip}using the procedures specified in paragraphs (i) and (k) of this section.

(2) V_{tip} must be less than 400 feet per second and also less than the maximum allowed flare tip velocity (V_{max}) as calculated according to the following equation. The owner or operator shall monitor V_{tip} using the procedures specified in paragraphs (i) and (k) of this section and monitor gas composition and determine NHV_{vg} using the procedures specified in paragraphs (j) and (l) of this section.

$$Log_{10}(V_{max}) = \frac{NHV_{vg} + 1{,}212}{850}$$

Where:

V_{max} = Maximum allowed flare tip velocity, ft/sec.

NHV_{vg} = Net heating value of flare vent gas, as determined by paragraph (k)(4) of this section, Btu/scf.
1,212 = Constant.
850 = Constant.

(3) Pressure-assisted flares are not subject to the flare tip velocity limits in either paragraph (d)(1) or (2) of this section. In lieu of the flare tip velocity limits, beginning on April 4, 2024, the owner or operator of a pressure-assisted flare must install and operate pressure monitor(s) on the main flare header, as well as a valve position indicator monitoring system for each staging valve to ensure that the flare operates within the proper range of conditions as specified by the manufacturer. The pressure monitor must meet the requirements in table 13 of this subpart.

(e) *Combustion zone operating limits.* The owner or operator shall operate the flare to maintain the net heating value of flare combustion zone gas (NHV_{cz}) at or above the applicable limits in paragraphs (e)(1) and (2) of this section determined on a 15-minute block period basis when regulated material is routed to the flare for at least 15-minutes. The owner or operator shall monitor and calculate NHV_{cz} as specified in paragraph (m) of this section.

(1) For all flares other than pressure-assisted flares, 270 British thermal units per standard cubic feet (Btu/scf).

(2) Beginning on April 4, 2024, for each pressure-assisted flare, 800 Btu/scf.

(f) *Dilution operating limits for flares with perimeter assist air.* Except as provided in paragraph (f)(1) of this section, for each flare actively receiving perimeter assist air, the owner or operator shall operate the flare to maintain the net heating value dilution parameter (NHVdil) at or above 22 British thermal units per square foot (Btu/ft^2) determined on a 15-minute block period basis when regulated material is being routed to the flare for at least 15-minutes. The owner or operator shall monitor and calculate NHV_{dil} as specified in paragraph (n) of this section.

(1) If the only assist air provided to a specific flare is perimeter assist air intentionally entrained in lower and/or upper steam at the flare tip and the effective diameter is 9 inches or greater, the owner or operator shall comply only with the NHV_{cz} operating limit in paragraph (e) of this section for that flare.

(2) [Reserved]

(g) *Pilot flame monitoring.* The owner or operator shall continuously monitor the presence of the pilot flame(s) using a device (including, but not limited to, a thermocouple, ultraviolet beam sensor, or infrared sensor) capable of detecting that the pilot flame(s) is present.

(h) *Visible emissions monitoring.* The owner or operator shall conduct an initial visible emissions demonstration using an observation period of 2 hours using Method 22 at 40 CFR part 60, appendix A–7. The initial visible emissions demonstration should be conducted the first time regulated materials are routed to the flare. Subsequent visible emissions observations must be conducted using either the methods in paragraph (h)(1) of this section or, alternatively, the methods in paragraph (h)(2) of this section. The owner or operator must record and report any instances where visible emissions are observed for more than 5 minutes during any 2 consecutive hours as specified in § 63.655(g)(11)(ii).

(1) At least once per day for each day regulated material is routed to the flare, conduct visible emissions observations using an observation period of 5 minutes using Method 22 at 40 CFR part 60, appendix A–7. If at any time the owner or operator sees visible emissions while regulated material is routed to the flare, even if the minimum required daily visible emission monitoring has already been performed, the owner or operator shall immediately begin an observation period of 5 minutes using Method 22 at 40 CFR part 60, appendix A–7. If visible emissions are observed for more than one continuous minute during any 5-minute observation period, the observation period using Method 22 at 40 CFR part 60, appendix A–7 must be extended to 2 hours or until 5-minutes of visible emissions are observed. Daily 5-minute Method 22 observations are not required to be conducted for days the flare does not receive any regulated material.

(2) Use a video surveillance camera to continuously record (at least one frame every 15 seconds with time and date stamps) images of the flare flame and a reasonable distance above the flare flame at an angle suitable for visual emissions observations. The owner or operator must provide real-time video surveillance camera output to the control room or other continuously manned location where the camera images may be viewed at any time.

(i) *Flare vent gas, steam assist and air assist flow rate monitoring.* The owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate in the flare header or headers that feed the flare as well as any flare supplemental gas used. Different flow monitoring methods may be used to measure different gaseous streams that make up the flare vent gas provided that the flow rates of all gas streams that contribute to the flare vent gas are determined. If assist air or assist steam is used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of assist air and/or assist steam used with the flare. If pre-mix assist air and perimeter assist are both used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of separately measuring, calculating, and recording the volumetric flow rate of premix assist air and perimeter assist air used with the flare. Flow monitoring system requirements and acceptable alternatives are provided in paragraphs (i)(1) through (6) of this section.

(1) The flow rate monitoring systems must be able to correct for the temperature and pressure of the system and output parameters in standard conditions (*i.e.*, a temperature of 20 °C (68 °F) and a pressure of 1 atmosphere).

(2) Mass flow monitors may be used for determining volumetric flow rate of flare vent gas provided the molecular weight of the flare vent gas is determined using compositional analysis as specified in paragraph (j) of this section so that the mass flow rate can be converted to volumetric flow at standard conditions using the following equation.

$$Q_{vol} = \frac{Q_{mass} \times 385.3}{MWt}$$

Where:

Q_{vol} = Volumetric flow rate, standard cubic feet per second.

Q_{mass} = Mass flow rate, pounds per second.

385.3 = Conversion factor, standard cubic feet per pound-mole.

MWt = Molecular weight of the gas at the flow monitoring location, pounds per pound-mole.

(3) Mass flow monitors may be used for determining volumetric flow rate of assist air or assist steam. Use equation in paragraph (i)(2) of this section to convert mass flow rates to volumetric flow rates. Use a molecular weight of 18 pounds per pound-mole for assist steam and use a molecular weight of 29 pounds per pound-mole for assist air.

(4) Continuous pressure/temperature monitoring system(s) and appropriate engineering calculations may be used in lieu of a continuous volumetric flow monitoring systems provided the molecular weight of the gas is known. For assist steam, use a molecular weight of 18 pounds per pound-mole. For assist air, use a molecular weight of 29 pounds per pound-mole. For flare vent gas, molecular weight must be determined using compositional analysis as specified in paragraph (j) of this section.

(5) Continuously monitoring fan speed or power and using fan curves is an acceptable method for continuously monitoring assist air flow rates.

(6) For perimeter assist air intentionally entrained in lower and/or upper steam, the monitored steam flow rate and the maximum design air-to-

steam volumetric flow ratio of the entrainment system may be used to determine the assist air flow rate.

(j) *Flare vent gas composition monitoring.* The owner or operator shall determine the concentration of individual components in the flare vent gas using either the methods provided in paragraph (j)(1) or (2) of this section, to assess compliance with the operating limits in paragraph (e) of this section and, if applicable, paragraphs (d) and (f) of this section. Alternatively, the owner or operator may elect to directly monitor the net heating value of the flare vent gas following the methods provided in paragraphs (j)(3) of this section and, if desired, may directly measure the hydrogen concentration in the flare vent gas following the methods provided in paragraphs (j)(4) of this section. The owner or operator may elect to use different monitoring methods for different gaseous streams that make up the flare vent gas using different methods provided the composition or net heating value of all gas streams that contribute to the flare vent gas are determined.

(1) Except as provided in paragraphs (j)(5) and (6) of this section, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring (*i.e.*, at least once every 15-minutes), calculating, and recording the individual component concentrations present in the flare vent gas.

(2) Except as provided in paragraphs (j)(5) and (6) of this section, the owner or operator shall install, operate, and maintain a grab sampling system capable of collecting an evacuated canister sample for subsequent compositional analysis at least once every eight hours while there is flow of regulated material to the flare. Subsequent compositional analysis of the samples must be performed according to Method 18 of 40 CFR part 60, appendix A–6, ASTM D6420–99 (Reapproved 2010), ASTM D1945–03 (Reapproved 2010), ASTM D1945–14 or ASTM UOP539–12 (all incorporated by reference—see § 63.14).

(3) Except as provided in paragraphs (j)(5) and (6) of this section, the owner or operator shall install, operate, calibrate, and maintain a calorimeter capable of continuously measuring, calculating, and recording NHV_{vg} at standard conditions.

(4) If the owner or operator uses a continuous net heating value monitor according to paragraph (j)(3) of this section, the owner or operator may, at their discretion, install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the hydrogen concentration in the flare vent gas.

(5) Direct compositional or net heating value monitoring is not required for purchased (''pipeline quality'') natural gas streams. The net heating value of purchased natural gas streams may be determined using annual or more frequent grab sampling at any one representative location. Alternatively, the net heating value of any purchased natural gas stream can be assumed to be 920 Btu/scf.

(6) Direct compositional or net heating value monitoring is not required for gas streams that have been demonstrated to have consistent composition (or a fixed minimum net heating value) according to the methods in paragraphs (j)(6)(i) through (iii) of this section.

(i) The owner or operator shall submit to the Administrator a written application for an exemption from monitoring. The application must contain the following information:

(A) A description of the flare gas stream/system to be considered, including submission of a portion of the appropriate piping diagrams indicating the boundaries of the flare gas stream/system and the affected flare(s) to be considered;

(B) A statement that there are no crossover or entry points to be introduced into the flare gas stream/system (this should be shown in the piping diagrams) prior to the point where the flow rate of the gas streams is measured;

(C) An explanation of the conditions that ensure that the flare gas net heating value is consistent and, if flare gas net heating value is expected to vary (*e.g.*, due to product loading of different material), the conditions expected to produce the flare gas with the lowest net heating value;

(D) The supporting test results from sampling the requested flare gas stream/system for the net heating value. Sampling data must include, at minimum, 2 weeks of daily measurement values (14 grab samples) for frequently operated flare gas streams/systems; for infrequently operated flare gas streams/systems, seven grab samples must be collected unless other additional information would support reduced sampling. If the flare gas stream composition can vary, samples must be taken during those conditions expected to result in lowest net heating value identified in paragraph (j)(6)(i)(C) of this section. The owner or operator shall determine net heating value for the gas stream using either gas composition analysis or net heating value monitor (with optional hydrogen concentration analyzer) according to the method provided in paragraph (l) of this section; and

(E) A description of how the 2 weeks (or seven samples for infrequently operated flare gas streams/systems) of monitoring results compares to the typical range of net heating values expected for the flare gas stream/system going to the affected flare (*e.g.*, ''the samples are representative of typical operating conditions of the flare gas stream going to the loading rack flare'' or ''the samples are representative of conditions expected to yield the lowest net heating value of the flare gas stream going to the loading rack flare'').

(F) The net heating value to be used for all flows of the flare vent gas from the flare gas stream/system covered in the application. A single net heating value must be assigned to the flare vent gas either by selecting the lowest net heating value measured in the sampling program or by determining the 95th percent confidence interval on the mean value of all samples collected using the t-distribution statistic (which is 1.943 for 7 grab samples or 1.771 for 14 grab samples).

(ii) The effective date of the exemption is the date of submission of the information required in paragraph (j)(6)(i) of this section.

(iii) No further action is required unless refinery operating conditions change in such a way that affects the exempt fuel gas stream/system (*e.g.*, the stream composition changes). If such a change occurs, the owner or operator shall follow the procedures in paragraph (j)(6)(iii)(A), (B), or (C) of this section.

(A) If the operation change results in a flare vent gas net heating value that is still within the range of net heating values included in the original application, the owner or operator shall determine the net heating value on a grab sample and record the results as proof that the net heating value assigned to the vent gas stream in the original application is still appropriate.

(B) If the operation change results in a flare vent gas net heating value that is lower than the net heating value assigned to the vent gas stream in the original application, the owner or operator may submit new information following the procedures of paragraph (j)(6)(i) of this section within 60 days (or within 30 days after the seventh grab sample is tested for infrequently operated process units).

(C) If the operation change results in a flare vent gas net heating value has greater variability in the flare gas stream/system such the owner or operator chooses not to submit new information to support an exemption, the owner or operator must begin monitoring the composition or net heat content of the flare vent gas stream using the methods in this section (*i.e.*, grab samples every 8 hours until such time a continuous monitor, if elected, is installed).

(k) *Calculation methods for cumulative flow rates and determining compliance with Vtip operating limits.* The owner or operator shall determine V_{tip} on a 15-minute block average basis according to the following requirements.

(1) The owner or operator shall use design and engineering principles to determine the unobstructed cross sectional area of the flare tip. The unobstructed cross sectional area of the flare tip is the total tip area that vent gas can pass through. This area does not include any stability tabs, stability rings, and upper steam or air tubes because flare vent gas does not exit through them.

(2) The owner or operator shall determine the cumulative volumetric flow

of flare vent gas for each 15-minute block average period using the data from the continuous flow monitoring system required in paragraph (i) of this section according to the following requirements, as applicable. If desired, the cumulative flow rate for a 15-minute block period only needs to include flow during those periods when regulated material is sent to the flare, but owners or operators may elect to calculate the cumulative flow rates across the entire 15-minute block period for any 15-minute block period where there is regulated material flow to the flare.

(i) Use set 15-minute time periods starting at 12 midnight to 12:15 a.m., 12:15 a.m. to 12:30 a.m. and so on concluding at 11:45 p.m. to midnight when calculating 15-minute block average flow volumes.

(ii) If continuous pressure/temperature monitoring system(s) and engineering calculations are used as allowed under paragraph (i)(4) of this section, the owner or operator shall, at a minimum, determine the 15-minute block average temperature and pressure from the monitoring system and use those values to perform the engineering calculations to determine the cumulative flow over the 15-minute block average period. Alternatively, the owner or operator may divide the 15-minute block average period into equal duration subperiods(*e.g.*, three 5-minute periods) and determine the average temperature and pressure for each subperiod, perform engineering calculations to determine the flow for each subperiod, then add the volumetric flows for the subperiods to determine the cumulative volumetric flow of vent gas for the 15-minute block average period.

(3) The 15-minute block average V_{tip} shall be calculated using the following equation.

$$V_{tip} = \frac{Q_{cum}}{Area \times 900}$$

Where:

V_{tip} = Flare tip velocity, feet per second.
Q_{cum} = Cumulative volumetric flow over 15-minute block average period, standard cubic feet.
Area = Unobstructed area of the flare tip, square feet.
900 = Conversion factor, seconds per 15-minute block average.

(4) If the owner or operator chooses to comply with paragraph (d)(2) of this section, the owner or operator shall also determine the net heating value of the flare vent gas following the requirements in paragraphs (j) and (l) of this section and calculate V_{max} using the equation in paragraph (d)(2) of this section in order to compare V_{tip} to V_{max} on a 15-minute block average basis.

(l) *Calculation methods for determining flare vent gas net heating value.* The owner or operator shall determine the net heating value of the flare vent gas (NHV_{vg}) based on the composition monitoring data on a 15-minute block average basis according to the following requirements.

(1) If compositional analysis data are collected as provided in paragraph (j)(1) or (2) of this section, the owner or operator shall determine NHV_{vg} of a specific sample by using the following equation.

$$NHV_{vg} = \sum_{i=1}^{n} x_i NHV_i$$

Where:

NHV_{vg} = Net heating value of flare vent gas, Btu/scf.

i = Individual component in flare vent gas.
n = Number of components in flare vent gas.
x_i = Concentration of component i in flare vent gas, volume fraction.
NHV_i = Net heating value of component i according to table 12 of this subpart, Btu/scf. If the component is not specified in table 12 of this subpart, the heats of combustion may be determined using any published values where the net enthalpy per mole of offgas is based on combustion at 25 °C and 1 atmosphere (or constant pressure) with offgas water in the gaseous state, but the standard temperature for determining the volume corresponding to one mole of vent gas is 20 °C.

(2) If direct net heating value monitoring data are collected as provided in paragraph (j)(3) of this section but a hydrogen concentration monitor is not used, the owner or operator shall use the direct output of the monitoring system(s) (in Btu/scf) to determine the NHV_{vg} for the sample.

(3) If direct net heating value monitoring data are collected as provided in paragraph (j)(3) of this section and hydrogen concentration monitoring data are collected as provided in paragraph (j)(4) of this section, the owner or operator shall use the following equation to determine NHV_{vg} for each sample measured via the net heating value monitoring system.

$$NHV_{vg} = NHV_{measured} + 938x_{H2}$$

Where:

NHV_{vg} = Net heating value of flare vent gas, Btu/scf.
$NHV_{measured}$ = Net heating value of flare vent gas stream as measured by the continuous net heating value monitoring system, Btu/scf.
x_{H2} = Concentration of hydrogen in flare vent gas at the time the sample was input into the net heating value monitoring system, volume fraction.
938 = Net correction for the measured heating value of hydrogen (1,212 − 274), Btu/scf.

(4) Use set 15-minute time periods starting at 12 midnight to 12:15 a.m., 12:15 a.m. to 12:30 a.m. and so on concluding at 11:45 p.m. to midnight when calculating 15-minute block averages.

(5) When a continuous monitoring system is used as provided in paragraph (j)(1) or (3) of this section and, if applicable, paragraph (j)(4) of this section, the owner or operator of a flare other than a pressure-assisted flare may elect to determine the 15-minute block average NHV_{vg} using either the calculation methods in paragraph (l)(5)(i) of this section or the calculation methods in paragraph (l)(5)(ii) of this section. The owner or operator may choose to comply using the calculation methods in paragraph (l)(5)(i) of this section for some non-pressure-assisted flares at the petroleum refinery and comply using the calculation methods (l)(5)(ii) of this section for other flares. However, for each non-pressure-assisted flare, the owner or operator must elect one calculation method that will apply at all times, and use that method for all continuously monitored flare vent streams associated with that flare. If the owner or operator intends to change the calculation method that applies to a flare, the owner or operator must notify the Administrator 30 days in advance of such a change. For pressure-assisted flares, beginning on April 4, 2024, the owner or operator must use the calculation method in paragraph (l)(5)(ii) of this section.

(i) *Feed-forward calculation method.* When calculating NHV_{vg} for a specific 15-minute block:

(A) Use the results from the first sample collected during an event, (for periodic flare vent gas flow events) for the first 15-minute block associated with that event.

(B) If the results from the first sample collected during an event (for periodic flare vent gas flow events) are not available until after the second 15-minute block starts, use the results from the first sample collected during an event for the second 15-minute block associated with that event.

(C) For all other cases, use the results that are available from the most recent sample prior to the 15-minute block period for that 15-minute block period for all flare vent gas steams. For the purpose of this requirement, use the time that the results become available rather than the time the sample was collected. For example, if a sample is collected at 12:25 a.m. and the analysis is completed at 12:38 a.m., the results are available at 12:38 a.m. and these results would be used to determine compliance during the 15-minute block period from 12:45 a.m. to 1:00 a.m.

(ii) *Direct calculation method.* When calculating NHV_{vg} for a specific 15-minute block:

(A) If the results from the first sample collected during an event (for periodic flare vent gas flow events) are not available until after the second 15-minute block starts, use the results from the first sample collected during an event for the first 15-minute block associated with that event.

(B) For all other cases, use the arithmetic average of all NHV_{vg} measurement data results that become available during a 15-minute block to calculate the 15-minute block average for that period. For the purpose of this requirement, use the time that the results become available rather than the time the sample was collected. For example, if a sample is collected at 12:25 a.m. and the analysis is completed at 12:38 a.m., the results are available at 12:38 a.m. and these results would be used to determine compliance during the 15-minute block period from 12:30 a.m. to 12:45 a.m.

(6) When grab samples are used to determine flare vent gas composition:

(i) Use the analytical results from the first grab sample collected for an event for all 15-minute periods from the start of the event through the 15-minute block prior to the 15-minute block in which a subsequent grab sample is collected.

(ii) Use the results from subsequent grab sampling events for all 15 minute periods starting with the 15-minute block in which the sample was collected and ending with the 15-minute block prior to the 15-minute block in which the next grab sample is collected. For the purpose of this requirement, use the time the sample was collected rather than the time the analytical results become available.

(7) If the owner or operator monitors separate gas streams that combine to comprise the total flare vent gas flow, the 15-minute block average net heating value shall be determined separately for each measurement location according to the methods in paragraphs (l)(1) through (6) of this section and a flow-weighted average of the gas stream net heating values shall be used to determine the 15-minute block average net heating value of the cumulative flare vent gas.

(m) *Calculation methods for determining combustion zone net heating value.* The owner or operator shall determine the net heating value of the combustion zone gas (NHV_{cz}) as specified in paragraph (m)(1) or (2) of this section, as applicable.

(1) Except as specified in paragraph (m)(2) of this section, determine the 15-minute block average NHV_{cz} based on the 15-minute block average vent gas and assist gas flow rates using the following equation. For periods when there is no assist steam flow or premix assist air flow, $NHV_{cz} = NHV_{vg}$.

$$NHV_{cz} = \frac{Q_{vg} \times NHV_{vg}}{\left(Q_{vg} + Q_s + Q_{a,premix}\right)}$$

Where:

NHV_{cz} = Net heating value of combustion zone gas, Btu/scf.

NHV_{vg} = Net heating value of flare vent gas for the 15-minute block period, Btu/scf.

Q_{vg} = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

Q_s = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$ = Cumulative volumetric flow of premix assist air during the 15-minute block period, scf.

(2) Owners or operators of flares that use the feed-forward calculation methodology in paragraph (l)(5)(i) of this section and that monitor gas composition or net heating value in a location representative of the cumulative vent gas stream and that directly monitor flare supplemental gas flow additions to the flare must determine the 15-minute block average NHV_{cz} using the following equation.

$$NHV_{cz} = \frac{\left(Q_{vg} - Q_{NG2} + Q_{NG1}\right) \times NHV_{vg} + \left(Q_{NG2} - Q_{NG1}\right) \times NHV_{NG}}{\left(Q_{vg} + Q_s + Q_{a,premix}\right)}$$

Where:

NHV_{cz} = Net heating value of combustion zone gas, Btu/scf.

NHV_{vg} = Net heating value of flare vent gas for the 15-minute block period, Btu/scf.

Q_{vg} = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

Q_{NG2} = Cumulative volumetric flow of flare supplemental gas during the 15-minute block period, scf.

Q_{NG1} = Cumulative volumetric flow of flare supplemental gas during the previous 15-minute block period, scf. For the first 15-minute block period of an event, use the volumetric flow value for the current 15-minute block period, *i.e.*, $Q_{NG1} = Q_{NG2}$.

NHV_{NG} = Net heating value of flare supplemental gas for the 15-minute block period determined according to the requirements in paragraph (j)(5) of this section, Btu/scf.

Q_s = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$ = Cumulative volumetric flow of premix assist air during the 15-minute block period, scf.

(n) *Calculation methods for determining the net heating value dilution parameter.* The owner or operator shall determine the net heating value dilution parameter (NHV_{dil}) as specified in paragraph (n)(1) or (2) of this section, as applicable.

(1) Except as specified in paragraph (n)(2) of this section, determine the 15-minute block average NHV_{dil} based on the 15-minute block average vent gas and perimeter assist air flow rates using the following equation only during periods when perimeter assist air is used. For 15-minute block periods when there is no cumulative volumetric flow of perimeter assist air, the 15-minute block average NHV_{dil} parameter does not need to be calculated.

$$NHV_{dil} = \frac{Q_{vg} \times Diam \times NHV_{vg}}{\left(Q_{vg} + Q_s + Q_{a,premix} + Q_{a,perimeter}\right)}$$

Where:

NHV_{dil} = Net heating value dilution parameter, Btu/ft^2.

NHV_{vg} = Net heating value of flare vent gas determined for the 15-minute block period, Btu/scf.

Q_{vg} = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

Diam = Effective diameter of the unobstructed area of the flare tip for flare vent gas flow, ft. Use the area as determined in paragraph (k)(1) of this section and determine the diameter as

$$Diam = 2 \times \sqrt{Area/\pi} \ .$$

Q_s = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$ = Cumulative volumetric flow of premix assist air during the 15-minute block period, scf.

$Q_{a,perimeter}$ = Cumulative volumetric flow of perimeter assist air during the 15-minute block period, scf.

(2) Owners or operators of flares that use the feed-forward calculation methodology in paragraph (l)(5)(i) of this section and that monitor gas composition or net heating value in a location representative of the cumulative vent gas stream and that directly monitor flare supplemental gas flow additions

to the flare must determine the 15-minute block average NHV_{dil} using the following equation only during periods when perimeter assist air is used. For 15-minute block periods when there is no cumulative volumetric flow of perimeter assist air, the 15-minute block average NHV_{dil} parameter does not need to be calculated.

$$NHV_{dil} = \frac{\left[\left(Q_{vg} - Q_{NG2} + Q_{NG1}\right) \times NHV_{vg} + \left(Q_{NG2} - Q_{NG1}\right) \times NHV_{NG}\right] \times Diam}{\left(Q_{vg} + Q_{s} + Q_{a,premix} + Q_{a,perimeter}\right)}$$

Where:

NHV_{dil} = Net heating value dilution parameter, Btu/ft².

NHV_{vg} = Net heating value of flare vent gas determined for the 15-minute block period, Btu/scf.

Q_{vg} = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

Q_{NG2} = Cumulative volumetric flow of flare supplemental gas during the 15-minute block period, scf.

Q_{NG1} = Cumulative volumetric flow of flare supplemental gas during the previous 15-minute block period, scf. For the first 15-minute block period of an event, use the volumetric flow value for the current 15-minute block period, *i.e.*, $Q_{NG1} = Q_{NG2}$.

NHV_{NG} = Net heating value of flare supplemental gas for the 15-minute block period determined according to the requirements in paragraph (j)(5) of this section, Btu/scf.

Diam = Effective diameter of the unobstructed area of the flare tip for flare vent gas flow, ft. Use the area as determined in paragraph (k)(1) of this section and determine the diameter as

$$Diam = 2 \times \sqrt{Area/\pi} \ .$$

Q_s = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$ = Cumulative volumetric flow of premix assist air during the 15-minute block period, scf.

$Q_{a,perimeter}$ = Cumulative volumetric flow of perimeter assist air during the 15-minute block period, scf.

(o) *Emergency flaring provisions.* The owner or operator of a flare that has the potential to operate above its smokeless capacity under any circumstance shall comply with the provisions in paragraphs (o)(1) through (7) of this section.

(1) Develop a flare management plan to minimize flaring during periods of startup, shutdown, or emergency releases. The flare management plan must include the information described in paragraphs (o)(1)(i) through (vii) of this section.

(i) A listing of all refinery process units, ancillary equipment, and fuel gas systems connected to the flare for each affected flare.

(ii) An assessment of whether discharges to affected flares from these process units, ancillary equipment and fuel gas systems can be minimized or prevented during periods of startup, shutdown, or emergency releases. The flare minimization assessment must (at a minimum) consider the items in paragraphs (o)(1)(ii)(A) through (C) of this section. The assessment must provide clear rationale in terms of costs (capital and annual operating), natural gas offset credits (if applicable), technical feasibility, secondary environmental impacts and safety considerations for the selected minimization alternative(s) or a statement, with justifications, that flow reduction could not be achieved. Based upon the assessment, each owner or operator of an affected flare shall identify the minimization alternatives that it has implemented by the due date of the flare management plan and shall include a

schedule for the prompt implementation of any selected measures that cannot reasonably be completed as of that date.

(A) Modification in startup and shutdown procedures to reduce the quantity of process gas discharge to the flare.

(B) Implementation of prevention measures listed for pressure relief devices in §63.648(j)(3)(ii)(A) through (E) for each pressure relief device that can discharge to the flare.

(C) Installation of a flare gas recovery system or, for facilities that are fuel gas rich, a flare gas recovery system and a co-generation unit or combined heat and power unit.

(iii) A description of each affected flare containing the information in paragraphs (o)(1)(iii)(A) through (G) of this section.

(A) A general description of the flare, including whether it is a ground flare or elevated (including height), the type of assist system (*e.g.*, air, steam, pressure, non-assisted), whether the flare is used on a routine basis or if it is only used during periods of startup, shutdown or emergency release, and whether the flare is equipped with a flare gas recovery system.

(B) The smokeless capacity of the flare based on a 15-minute block average and design conditions. *Note:* A single value must be provided for the smokeless capacity of the flare.

(C) The maximum vent gas flow rate (hydraulic load capacity).

(D) The maximum supplemental gas flow rate.

(E) For flares that receive assist steam, the minimum total steam rate and the maximum total steam rate.

(F) For flares that receive assist air, an indication of whether the fan/blower is single speed, multi-fixed speed (*e.g.*, high, medium, and low speeds), or variable speeds. For fans/blowers with fixed speeds, provide the estimated assist air flow rate at each fixed speed. For variable speeds, provide the design fan curve (*e.g.*, air flow rate as a function of power input).

(G) Simple process flow diagram showing the locations of the flare following components of the flare: Flare tip (date installed, manufacturer, nominal and effective tip diameter, tip drawing); knockout or surge drum(s) or pot(s) (including dimensions and design capacities); flare header(s) and subheader(s); assist system; and ignition system.

(iv) Description and simple process flow diagram showing all gas lines (including flare waste gas, purge or sweep gas (as applicable), supplemental gas) that are associated with the flare. For purge, sweep, supplemental gas, identify the type of gas used. Designate which lines are exempt from composition or net heating value monitoring and why (*e.g.*, natural gas, gas streams that have been demonstrated to have consistent composition, pilot gas). Designate which lines are monitored and identify on the process flow diagram the location and type of each monitor. Designate the pressure relief devices that are vented to the flare.

(v) For each flow rate, gas composition, net heating value or hydrogen concentration monitor identified in paragraph (o)(1)(iv) of this section, provide a detailed description of the manufacturer's specifications, including, but not limited to, make, model, type, range, precision, accuracy, calibration, maintenance and quality assurance procedures.

(vi) For each pressure relief device vented to the flare identified in paragraph (o)(1)(iv) of this section, provide a detailed description of each pressure release device, including type of relief device (rupture disc, valve type) diameter of the relief device opening, set pressure of the relief device and listing of the prevention measures implemented. This information may be maintained in an electronic database on-site and does not need to be submitted as part of the flare management plan unless requested to do so by the Administrator.

(vii) Procedures to minimize or eliminate discharges to the flare during the planned startup and shutdown of the refinery process units and ancillary equipment that are connected to the affected flare, together with a schedule for the prompt implementation of any procedures that cannot reasonably be implemented as of the date of the submission of the flare management plan.

(2) Each owner or operator required to develop and implement a written flare management plan as described in paragraph (o)(1) of this section must submit the plan to the Administrator as described in paragraphs (o)(2)(i) through (iii) of this section.

(i) The owner or operator must develop and implement the flare management plan no later than January 30, 2019 or at startup for a new flare that commenced construction on or after February 1, 2016.

(ii) The owner or operator must comply with the plan as submitted by the date specified in paragraph (o)(2)(i) of this section. The plan should be updated periodically to account for changes in the operation of the flare, such as new connections to the flare or the installation of a flare gas recovery system, but the plan need be re-submitted to the Administrator only if the owner or operator alters the design smokeless capacity of the flare. The owner or operator must comply with the updated plan as submitted.

(iii) All versions of the plan submitted to the Administrator shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143–01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to *refineryRTR@epa.gov*.

(3) The owner or operator of a flare subject to this subpart shall conduct a root cause analysis and a corrective action analysis for each flow event that contains regulated material and that meets either the criteria in paragraph (o)(3)(i) or (ii) of this section.

(i) The vent gas flow rate exceeds the smokeless capacity of the flare based on a 15-minute block average and visible emissions are present from the flare for more than 5 minutes during any 2 consecutive hours during the release event.

(ii) The vent gas flow rate exceeds the smokeless capacity of the flare and the 15-minute block average flare tip velocity exceeds the maximum flare tip velocity determined using the methods in paragraph (d)(2) of this section.

(4) A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a flare flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in paragraphs (o)(4)(i) through (v) of this section.

(i) You may conduct a single root cause analysis and corrective action analysis for a single continuous flare flow event that meets both of the criteria in paragraphs (o)(3)(i) and (ii) of this section.

(ii) You may conduct a single root cause analysis and corrective action analysis for a single continuous flare flow event regardless of the number of 15-minute block periods in which the flare tip velocity was exceeded or the number of 2 hour periods that contain more the 5 minutes of visible emissions.

(iii) You may conduct a single root cause analysis and corrective action analysis for a single event that causes two or more flares that are operated in series (*i.e.*, cascaded flare systems) to have a flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section.

(iv) Prior to June 3, 2024, you may conduct a single root cause analysis and corrective action analysis for a single event that causes two or more flares to have a flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section, regardless of the configuration of the flares, if the root cause is reasonably expected to be a force majeure event, as defined in this subpart.

(v) Except as provided in paragraphs (o)(4)(iii) and (iv) of this section, if more than one flare has a flow event that meets the criteria in paragraph (o)(3)(i) or (ii) of this section during the same time period, an initial root cause analysis shall be conducted separately for each flare that has a flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section. If the initial root cause analysis indicates that the flow events have the same root cause(s), the initially separate root

cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

(5) Each owner or operator of a flare required to conduct a root cause analysis and corrective action analysis as specified in paragraphs (o)(3) and (4) of this section shall implement the corrective action(s) identified in the corrective action analysis in accordance with the applicable requirements in paragraphs (o)(5)(i) through (iii) of this section.

(i) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that no corrective action should be implemented, the owner or operator shall record and explain the basis for that conclusion no later than 45 days following the event.

(ii) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, the owner or operator shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(iii) No later than 45 days following the event for which a root cause and corrective action analyses were required, the owner or operator shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(6) The owner or operator shall determine the total number of events for which a root cause and corrective action analyses was required during the calendar year for each affected flare separately for events meeting the criteria in paragraph (o)(3)(i) of this section and those meeting the criteria in paragraph (o)(3)(ii) of this section. For the purpose of this requirement, a single root cause analysis conducted for an event that met both of the criteria in paragraphs (o)(3)(i) and (ii) of this section would be counted as an event under each of the separate criteria counts for that flare. Additionally, if a single root cause analysis was conducted for an event that caused multiple flares to meet the criteria in paragraph (o)(3)(i) or (ii) of this section, that event would count as an event for each of the flares for each criteria in paragraph (o)(3) of this section that was met during that event. Prior to June 3, 2024, the owner or operator shall also determine the total number of events for which a root cause and correct action analyses was required and the analyses concluded that the root cause was a force majeure event, as defined in this subpart.

(7) The following events would be a violation of this emergency flaring work practice standard.

(i) Any flow event for which a root cause analysis was required and the root cause was determined to be operator error or poor maintenance.

(ii) Prior to June 3, 2024, two visible emissions exceedance events meeting the criteria in paragraph (o)(3)(i) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for the same root cause for the same equipment. On and after June 3, 2024, two visible emissions exceedance events meeting the criteria in paragraph (o)(3)(i) of this section from a single flare in a 3 calendar year period for the same root cause for the same equipment.

(iii) Prior to June 3, 2024, two flare tip velocity exceedance events meeting the criteria in paragraph (o)(3)(ii) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for the same root cause for the same equipment. On and after June 3, 2024, two flare tip velocity exceedance events meeting the criteria in paragraph (o)(3)(ii) of this section from a single flare in a 3 calendar year period for the same root cause for the same equipment.

(iv) Prior to June 3, 2024, three visible emissions exceedance events meeting the criteria in paragraph (o)(3)(i) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for any reason. On and after June 3, 2024, three visible emissions exceedance events meeting the criteria in paragraph (o)(3)(i) of this section from a single flare in a 3 calendar year period for any reason.

(v) Prior to June 3, 2024, three flare tip velocity exceedance events meeting the criteria in paragraph (o)(3)(ii) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for any reason. On and after June 3, 2024, three flare tip velocity exceedance events meeting the criteria in paragraph (o)(3)(ii) of this section from a single flare in a 3 calendar year period for any reason.

(p) *Flare monitoring records.* The owner or operator shall keep the records specified in § 63.655(i)(9).

(q) *Reporting.* The owner or operator shall comply with the reporting requirements specified in § 63.655(g)(11).

(r) *Alternative means of emissions limitation.* An owner or operator may request approval from the Administrator for site-specific operating limits that shall apply specifically to a selected flare. Site-specific operating limits include alternative threshold values for the parameters specified in paragraphs (d) through (f) of this section as well as threshold values for operating parameters other than those specified in paragraphs (d) through (f) of this section. The owner or operator must demonstrate that the flare achieves 96.5 percent combustion efficiency (or 98 percent destruction efficiency) using the site-specific operating limits based on a performance evaluation as described in paragraph (r)(1) of this section. The request shall include information as described in paragraph (r)(2) of this section. The request shall be submitted and followed as described in paragraph (r)(3) of this section.

(1) The owner or operator shall prepare and submit a site-specific test plan and receive approval of the site-specific performance evaluation plan prior to conducting any flare performance evaluation test runs intended for use in developing site-specific operating limits. The site-specific performance evaluation plan shall include, at a minimum, the elements specified in paragraphs (r)(1)(i) through (ix) of this section. Upon approval of the site-specific performance evaluation plan, the owner or operator shall conduct performance evaluation test runs for the flare following the procedures described in the site-specific performance evaluation plan.

(i) The design and dimensions of the flare, flare type (air-assisted only, steam-assisted only, air- and steam-assisted, pressure-assisted, or non-assisted), and description of gas being flared, including quantity of gas flared, frequency of flaring events (if periodic), expected net heating value of flare vent gas, minimum total steam assist rate.

(ii) The operating conditions (vent gas compositions, vent gas flow rates and assist flow rates, if applicable) likely to be encountered by the flare during normal operations and the operating conditions for the test period.

(iii) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the flare combustion or destruction efficiency.

(iv) Site-specific operating parameters to be monitored continuously during the flare performance evaluation. These parameters may include but are not limited to vent gas flow rate, steam and/or air assist flow rates, and flare vent gas composition. If new operating parameters are proposed for use other than those specified in paragraphs (d) through (f) of this section, an explanation of the relevance of the proposed operating parameter(s) as an indicator of flare combustion performance and why the alternative operating parameter(s) can adequately ensure that the flare achieves the required combustion efficiency.

(v) A detailed description of the measurement methods, monitored pollutant(s), measurement locations, measurement frequency, and recording frequency proposed for both emission measurements and flare operating parameters.

(vi) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the flare operating parameters.

(vii) The minimum number and length of test runs and range of operating values to be evaluated during the performance evaluation. A sufficient number of test runs shall be conducted

to identify the point at which the combustion/destruction efficiency of the flare deteriorates.

(viii) [Reserved]

(ix) Test schedule.

(2) The request for flare-specific operating limits shall include sufficient and appropriate data, as determined by the Administrator, to allow the Administrator to confirm that the selected site-specific operating limit(s) adequately ensures that the flare destruction efficiency is 98 percent or greater or that the flare combustion efficiency is 96.5 percent or greater at all times. At a minimum, the request shall contain the information described in paragraphs (r)(2)(i) through (iv) of this section.

(i) The design and dimensions of the flare, flare type (air-assisted only, steam-assisted only, air- and steam-assisted, pressure-assisted, or non-assisted), and description of gas being flared, including quantity of gas flared, frequency of flaring events (if periodic), expected net heating value of flare vent gas, minimum total steam assist rate.

(ii) Results of each performance evaluation test run conducted, including, at a minimum:

(A) The measured combustion/destruction efficiency.

(B) The measured or calculated operating parameters for each test run. If operating parameters are calculated, the raw data from which the parameters are calculated must be included in the test report.

(C) Measurement location descriptions for both emission measurements and flare operating parameters.

(D) Description of sampling and analysis procedures (including number and length of test runs) and any modifications to standard procedures. If there were deviations from the approved test plan, a detailed description of the deviations and rationale why the test results or calculation procedures used are appropriate.

(E) Operating conditions (*e.g.*, vent gas composition, assist rates, etc.) that occurred during the test.

(F) Quality assurance procedures.

(G) Records of calibrations.

(H) Raw data sheets for field sampling.

(I) Raw data sheets for field and laboratory analyses.

(J) Documentation of calculations.

(iii) The selected flare-specific operating limit values based on the performance evaluation test results, including the averaging time for the operating limit(s), and rationale why the selected values and averaging times are sufficiently stringent to ensure proper flare performance. If new operating parameters or averaging times are proposed for use other than those specified in paragraphs (d) through (f) of this section, an explanation of why the alternative operating parameter(s) or averaging time(s) adequately ensures the flare achieves the required combustion efficiency.

(iv) The means by which the owner or operator will document on-going, continuous compliance with the selected flare-specific operating limit(s), including the specific measurement location and frequencies, calculation procedures, and records to be maintained.

(3) The request shall be submitted as described in paragraphs (r)(3)(i) through (iv) of this section.

(i) The owner or operator may request approval from the Administrator at any time upon completion of a performance evaluation conducted following the methods in an approved site-specific performance evaluation plan for an operating limit(s) that shall apply specifically to that flare.

(ii) The request must be submitted to the Administrator for approval. The owner or operator must continue to comply with the applicable standards for flares in this subpart until the requirements in §63.6(g)(1) are met and a notice is published in the FEDERAL REGISTER allowing use of such an alternative means of emission limitation.

(iii) The request shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143–01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to *refineryrtr@epa.gov*.

(iv) If the Administrator finds any deficiencies in the request, the request

must be revised to address the deficiencies and be re-submitted for approval within 45 days of receipt of the notice of deficiencies. The owner or operator must comply with the revised request as submitted until it is approved.

(4) The approval process for a request for a flare-specific operating limit(s) is described in paragraphs (r)(4)(i) through (iii) of this section.

(i) Approval by the Administrator of a flare-specific operating limit(s) request will be based on the completeness, accuracy and reasonableness of the request. Factors that the EPA will consider in reviewing the request for approval include, but are not limited to, those described in paragraphs (r)(4)(i)(A) through (C) of this section.

(A) The description of the flare design and operating characteristics.

(B) If a new operating parameter(s) other than those specified in paragraphs (d) through (f) of this section is proposed, the explanation of how the proposed operating parameter(s) serves a good indicator(s) of flare combustion performance.

(C) The results of the flare performance evaluation test runs and the establishment of operating limits that ensures that the flare destruction efficiency is 98 percent or greater or that the flare combustion efficiency is 96.5 percent or greater at all times.

(D) The completeness of the flare performance evaluation test report.

(ii) If the request is approved by the Administrator, a flare-specific operating limit(s) will be established at the level(s) demonstrated in the approved request.

(iii) If the Administrator finds any deficiencies in the request, the request must be revised to address the deficiencies and be re-submitted for approval.

[80 FR 75258, Dec. 1, 2015, as amended at 81 FR 45241, July 13, 2016; 83 FR 60720, Nov. 26, 2018; 85 FR 6083, Feb. 4, 2020; 89 FR 23860, Apr. 4, 2024]

§ 63.671 Requirements for flare monitoring systems.

(a) *Operation of CPMS.* For each CPMS installed to comply with applicable provisions in § 63.670, the owner or operator shall install, operate, calibrate, and maintain the CPMS as specified in paragraphs (a)(1) through (8) of this section.

(1) Except for CPMS installed for pilot flame monitoring, all monitoring equipment must meet the applicable minimum accuracy, calibration and quality control requirements specified in table 13 of this subpart.

(2) The owner or operator shall ensure the readout (that portion of the CPMS that provides a visual display or record) or other indication of the monitored operating parameter from any CPMS required for compliance is readily accessible onsite for operational control or inspection by the operator of the source.

(3) All CPMS must complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period.

(4) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall operate all CPMS and collect data continuously at all times when regulated emissions are routed to the flare.

(5) The owner or operator shall operate, maintain, and calibrate each CPMS according to the CPMS monitoring plan specified in paragraph (b) of this section.

(6) For each CPMS except for CPMS installed for pilot flame monitoring, the owner or operator shall comply with the out-of-control procedures described in paragraph (c) of this section.

(7) The owner or operator shall reduce data from a CPMS as specified in paragraph (d) of this section.

(8) The CPMS must be capable of measuring the appropriate parameter over the range of values expected for that measurement location. The data recording system associated with each CPMS must have a resolution that is equal to or better than the required system accuracy.

(b) *CPMS monitoring plan.* The owner or operator shall develop and implement a CPMS quality control program documented in a CPMS monitoring

plan that covers each flare subject to the provisions in § 63.670 and each CPMS installed to comply with applicable provisions in § 63.670. The owner or operator shall have the CPMS monitoring plan readily available on-site at all times and shall submit a copy of the CPMS monitoring plan to the Administrator upon request by the Administrator. The CPMS monitoring plan must contain the information listed in paragraphs (b)(1) through (5) of this section.

(1) Identification of the specific flare being monitored and the flare type (air-assisted only, steam-assisted only, air- and steam-assisted, pressure-assisted, or non-assisted).

(2) Identification of the parameter to be monitored by the CPMS and the expected parameter range, including worst case and normal operation.

(3) Description of the monitoring equipment, including the information specified in paragraphs (b)(3)(i) through (vii) of this section.

(i) Manufacturer and model number for all monitoring equipment components installed to comply with applicable provisions in § 63.670.

(ii) Performance specifications, as provided by the manufacturer, and any differences expected for this installation and operation.

(iii) The location of the CPMS sampling probe or other interface and a justification of how the location meets the requirements of paragraph (a)(1) of this section.

(iv) Placement of the CPMS readout, or other indication of parameter values, indicating how the location meets the requirements of paragraph (a)(2) of this section.

(v) Span of the CPMS. The span of the CPMS sensor and analyzer must encompass the full range of all expected values.

(vi) How data outside of the span of the CPMS will be handled and the corrective action that will be taken to reduce and eliminate such occurrences in the future.

(vii) Identification of the parameter detected by the parametric signal analyzer and the algorithm used to convert these values into the operating parameter monitored to demonstrate compliance, if the parameter detected is different from the operating parameter monitored.

(4) Description of the data collection and reduction systems, including the information specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) A copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard and to calculate the applicable averages.

(ii) Identification of whether the algorithm excludes data collected during CPMS breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable) and high-level adjustments.

(iii) If the data acquisition algorithm does not exclude data collected during CPMS breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable) and high-level adjustments, a description of the procedure for excluding this data when the averages calculated as specified in paragraph (e) of this section are determined.

(5) Routine quality control and assurance procedures, including descriptions of the procedures listed in paragraphs (b)(5)(i) through (vi) of this section and a schedule for conducting these procedures. The routine procedures must provide an assessment of CPMS performance.

(i) Initial and subsequent calibration of the CPMS and acceptance criteria.

(ii) Determination and adjustment of the calibration drift of the CPMS.

(iii) Daily checks for indications that the system is responding. If the CPMS system includes an internal system check, the owner or operator may use the results to verify the system is responding, as long as the system provides an alarm to the owner or operator or the owner or operator checks the internal system results daily for proper operation and the results are recorded.

(iv) Preventive maintenance of the CPMS, including spare parts inventory.

(v) Data recording, calculations and reporting.

(vi) Program of corrective action for a CPMS that is not operating properly.

(c) *Out-of-control periods.* For each CPMS installed to comply with applicable provisions in § 63.670 except for CPMS installed for pilot flame monitoring, the owner or operator shall comply with the out-of-control procedures described in paragraphs (c)(1) and (2) of this section.

(1) A CPMS is out-of-control if the zero (low-level), mid-level (if applicable) or high-level calibration drift exceeds two times the accuracy requirement of table 13 of this subpart.

(2) When the CPMS is out of control, the owner or operator shall take the necessary corrective action and repeat all necessary tests that indicate the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour a performance check (*e.g.*, calibration drift) that indicates an exceedance of the performance requirements established in this section is conducted. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. The owner or operator shall not use data recorded during periods the CPMS is out of control in data averages and calculations, used to report emissions or operating levels, as specified in paragraph (d)(3) of this section.

(d) *CPMS data reduction.* The owner or operator shall reduce data from a CPMS installed to comply with applicable provisions in § 63.670 as specified in paragraphs (d)(1) through (3) of this section.

(1) The owner or operator may round the data to the same number of significant digits used in that operating limit.

(2) Periods of non-operation of the process unit (or portion thereof) resulting in cessation of the emissions to which the monitoring applies must not be included in the 15-minute block averages.

(3) Periods when the CPMS is out of control must not be included in the 15-minute block averages.

(e) *Additional requirements for gas chromatographs.* For monitors used to determine compositional analysis for net heating value per § 63.670(j)(1) that include a gas chromatograph, the gas chromatograph must also meet the requirements of paragraphs (e)(1) through (4) of this section.

(1) The quality assurance requirements are in table 13 of this subpart.

(2) The calibration gases must meet one of the following options:

(i) The owner or operator must use a calibration gas or multiple gases that include all of compounds listed in paragraphs (e)(2)(i)(A) through (K) of this section that may be reasonably expected to exist in the flare gas stream and optionally include any of the compounds listed in paragraphs (e)(2)(i)(L) through (O) of this section. All of the calibration gases may be combined in one cylinder. If multiple calibration gases are necessary to cover all compounds, the owner or operator must calibrate the instrument on all of the gases.

(A) Hydrogen.

(B) Methane.

(C) Ethane.

(D) Ethylene.

(E) Propane.

(F) Propylene.

(G) n-Butane.

(H) iso-Butane.

(I) Butene (general). It is not necessary to separately speciate butene isomers, but the net heating value of trans-butene must be used for co-eluting butene isomers.

(J) 1,3-Butadiene. It is not necessary to separately speciate butadiene isomers, but you must use the response factor and net heating value of 1,3-butadiene for co-eluting butadiene isomers.

(K) n-Pentane. Use the response factor for n-pentane to quantify all C5+ hydrocarbons.

(L) Acetylene (optional).

(M) Carbon monoxide (optional).

(N) Propadiene (optional).

(O) Hydrogen sulfide (optional).

(ii) The owner or operator must use a surrogate calibration gas consisting of

hydrogen and C1 through C5 normal hydrocarbons. All of the calibration gases may be combined in one cylinder. If multiple calibration gases are necessary to cover all compounds, the owner or operator must calibrate the instrument on all of the gases.

(3) If the owner or operator chooses to use a surrogate calibration gas under paragraph (e)(2)(ii) of this section, the owner or operator must comply with paragraphs (e)(3)(i) and (ii) of this section.

(i) Use the response factor for the nearest normal hydrocarbon (*i.e.*, n-alkane) in the calibration mixture to quantify unknown components detected in the analysis.

(ii) Use the response factor for n-pentane to quantify unknown components detected in the analysis that elute after n-pentane.

(4) Beginning on April 4, 2024, the owner or operator must initially determine the average instrument calibration error during the Seven (7)-Day Calibration Error Test Period and subsequently perform daily calibration and quarterly audits using either the compound-specific calibration error (CE) method provided in paragraph (i) of this section or using the net heating value (NHV) method provided in paragraph (ii) of this section.

(i) The average instrument CE for each calibration compound at any calibration concentration must not differ by more than 10 percent from the certified cylinder gas value. The CE for each component in the calibration blend must be calculated using the following equation:

Where:

$$CE = \frac{C_m - C_a}{C_a} \times 100$$

Where:

C_m = Average instrument response (ppm).

C_a = Certified cylinder gas value (ppm).

(ii) The CE for NHV at any calibration level must not differ by more than 10 percent from the certified cylinder gas value. The CE for must be calculated using the following equation:

$$CE = \frac{NHV_{measured} - NHV_a}{NHV_a} \times 100$$

Where:

$NHV_{measured}$ = Average instrument response (Btu/scf). NHV calculations must be based on the individual component properties in table 12 of this subpart.

NHV_a = Certified cylinder gas value (Btu/scf).

(f) *Additional requirements for continuous process mass spectrometers.* Beginning on April 4, 2024, for continuous process mass spectrometers used to determine compositional analysis for net heating value per § 63.670(j)(1) without the use of gas chromatography, the continuous process mass spectrometer must also meet the requirements of paragraphs (f)(1) through (7) of this section.

(1) You must meet the calibration gas requirements in paragraph (e)(2) of this section. You may augment the minimum list of calibration gas components found in paragraph (e)(2) of this section with compounds found during a pre-survey or known to be in the gas through process knowledge.

(2) Calibration gas cylinders (*i.e.*, low-, mid-, and high-levels) must be certified to an accuracy of 2 percent and traceable to National Institute of Standards and Technology (NIST) standards.

(3) For unknown gas components that have similar analytical mass fragments to calibration compounds, you

may report the unknowns as an increase in the overlapped calibration gas compound. For unknown compounds that produce mass fragments that do not overlap calibration compounds, you may use the response factor for the nearest molecular weight hydrocarbon in the calibration mix to quantify the unknown component's net heating value of flare vent gas (NHV_{vg}).

(4) You may use the response factor for n-pentane to quantify any unknown components detected with a higher molecular weight than n-pentane.

(5) You must perform an initial calibration to identify mass fragment overlap and response factors for the target compounds.

(6) You must meet applicable requirements in Table 13 of this subpart for Net Heating Value by Mass Spectrometer.

(7) The owner or operator must estimate the instrument calibration error in accordance with paragraph (e)(4) of this section.

[80 FR 75266, Dec. 1, 2015, as amended at 89 FR 23861, Apr. 4, 2024]

§§ 63.672–63.679 [Reserved]

Appendix to Subpart CC of Part 63—Tables

Table 1—Hazardous Air Pollutants

Chemical name	CAS No.[a]
Benzene	71432
Biphenyl	92524
Butadiene (1,3)	106990
Carbon disulfide	75150
Carbonyl sulfide	463581
Cresol (mixed isomers[b])	1319773
Cresol (m-)	108394
Cresol (o-)	95487
Cresol (p-)	106445
Cumene	98828
Dibromoethane (1,2) (ethylene dibromide)	106934
Dichloroethane (1,2)	107062
Diethanolamine	111422
Ethylbenzene	100414
Ethylene glycol	107211
Hexane	110543
Methanol	67561
Methyl isobutyl ketone (hexone)	108101
Methyl tert butyl ether	1634044
Naphthalene	91203
Phenol	108952
Toluene	108883
Trimethylpentane (2,2,4)	540841
Xylene (mixed isomers[b])	1330207
xylene (m-)	108383
xylene (o-)	95476
xylene (p-)	106423

[a] CAS number = Chemical Abstract Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

[b] Isomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters, or derivatives.

Table 2—Leak Definitions for Pumps and Valves

Standard[a]	Phase	Leak definition (parts per million)
§ 63.163 (pumps)	I	10,000
	II	5,000
	III	2,000
§ 63.168 (valves)	I	10,000
	II	1,000
	III	1,000

[a] Subpart H of this part.

Table 3—Equipment Leak Recordkeeping and Reporting Requirements for Sources Complying With § 63.648 of Subpart CC by Compliance With Subpart H of This Part[a]

Reference (section of subpart H of this part)	Description	Comment
63.181(a)	Recordkeeping system requirements	Except for §§ 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(b)	Records required for process unit equipment.	Except for §§ 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(c)	Visual inspection documentation	Except for §§ 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(d)	Leak detection record requirements	Except for § 63.181(d)(8).
63.181(e)	Compliance requirements for pressure tests for batch product process equipment trains.	This subsection does not apply to subpart CC.
63.181(f)	Compressor compliance test records.	
63.181(g)	Closed-vent systems and control device record requirements.	
63.181(h)	Process unit quality improvement program records.	
63.181(i)	Heavy liquid service determination record.	
63.181(j)	Equipment identification record.	

TABLE 3—EQUIPMENT LEAK RECORDKEEPING AND REPORTING REQUIREMENTS FOR SOURCES COMPLYING WITH § 63.648 OF SUBPART CC BY COMPLIANCE WITH SUBPART H OF THIS PART [a]—Continued

Reference (section of subpart H of this part)	Description	Comment
63.181(k)	Enclosed-vented process unit emission limitation record requirements.	
63.182(a)	Reports.	
63.182(b)	Initial notification report requirements.	Not required.
63.182(c)	Notification of compliance status report	Except in § 63.182(c); change "within 90 days of the compliance dates" to "within 150 days of the compliance dates"; except in §§ 63.182 (c)(2) and (c)(4).
63.182(d)	Periodic report	Except for §§ 63.182 (d)(2)(vii), (d)(2)(viii), and (d)(3).

[a] This table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

TABLE 4—GASOLINE DISTRIBUTION EMISSION POINT RECORDKEEPING AND REPORTING REQUIREMENTS [a]

Reference (section of subpart R)	Description	Comment
63.428(b) or (k)	Records of test results for each gasoline cargo tank loaded at the facility.	
63.428(c)	Continuous monitoring data recordkeeping requirements.	
63.428(g)(1)	Semiannual report loading rack information	Required to be submitted with the Periodic Report required under 40 CFR part 63, subpart CC.
63.428(h)(1) through (h)(3).	Excess emissions report loading rack information	Required to be submitted with the Periodic Report required under 40 CFR part 63, subpart CC.

[a] This table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

TABLE 5—MARINE VESSEL LOADING OPERATIONS RECORDKEEPING AND REPORTING REQUIREMENTS [a]

Reference (section of subpart Y)	Description	Comment
63.562(e)(2)	Operation and maintenance plan for control equipment and monitoring equipment.	
63.565(a)	Performance test/site test plan	The information required under this paragraph is to be submitted with the Notification of Compliance Status report required under 40 CFR part 63, subpart CC.
63.565(b)	Performance test data requirements.	
63.567(a)	General Provisions (subpart A) applicability.	
63.567(c)	Request for extension of compliance.	
63.567(d)	Flare recordkeeping requirements.	
63.567(e)	Summary report and excess emissions and monitoring system performance report requirements.	The information required under this paragraph is to be submitted with the Periodic Report required under 40 CFR part 63, subpart CC.
63.567(f)	Vapor collection system engineering report.	
63.567(g)	Vent system valve bypass recordkeeping requirements.	
63.567(h)	Marine vessel vapor-tightness documentation.	
63.567(i)	Documentation file maintenance.	
63.567(j)	Emission estimation reporting and recordkeeping procedures.	

[a] This table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

TABLE 6—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC [a]

Reference	Applies to subpart CC	Comment
63.1(a)(1)	Yes.	
63.1(a)(2)	Yes.	

TABLE 6—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC [a]—Continued

Reference	Applies to subpart CC	Comment
63.1(a)(3)	Yes.	
63.1(a)(4)	Yes.	
63.1(a)(5)	No	Reserved.
63.1(a)(6)	Yes	Except the correct mail drop (MD) number is C404–04.
63.1(a)(7)–63.1(a)(9)	No	Reserved.
63.1(a)(10)	Yes.	
63.1(a)(11)	Yes.	
63.1(a)(12)	Yes.	
63.1(b)(1)	Yes.	
63.1(b)(2)	No	Reserved.
63.1(b)(3)	No.	
63.1(c)(1)	Yes.	
63.1(c)(2)	No	Area sources are not subject to subpart CC.
63.1(c)(3)–63.1(c)(4)	No	Reserved.
63.1(c)(5)	Yes	Except that sources are not required to submit notifications overridden by this table.
63.1(c)(6)	Yes.	
63.1(d)	No	Reserved.
63.1(e)	No	No CAA section 112(j) standard applies to the affected sources under subpart CC.
63.2	Yes	§63.641 of subpart CC specifies that if the same term is defined in subparts A and CC, it shall have the meaning given in subpart CC.
63.3	Yes.	
63.4(a)(1)–63.4(a)(2)	Yes.	
63.4(a)(3)–63.4(a)(5)	No	Reserved.
63.4(b)	Yes.	
63.4(c)	Yes.	
63.5(a)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes.	
63.5(b)(4)	Yes	Except the cross-reference to §63.9(b) is changed to §63.9(b)(4) and (5). Subpart CC overrides §63.9 (b)(2).
63.5(b)(5)	No	Reserved.
63.5(b)(6)	Yes.	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	Yes	Except that the application shall be submitted as soon as practicable before startup, but no later than 90 days after the promulgation date of subpart CC if the construction or reconstruction had commenced and initial startup had not occurred before the promulgation of subpart CC.
63.5(d)(1)(ii)	Yes	Except that for affected sources subject to this subpart, emission estimates specified in §63.5(d)(1)(ii)(H) are not required, and §63.5(d)(1)(ii)(G) and (I) are Reserved and do not apply.
63.5(d)(1)(iii)	No	Subpart CC §63.655(f) specifies Notification of Compliance Status report requirements.
63.5(d)(2)	Yes.	
63.5(d)(3)	Yes.	
63.5(d)(4)	Yes.	
63.5(e)	Yes.	
63.5(f)	Yes	Except that the cross-reference in §63.5(f)(2) to §63.9(b)(2) does not apply.
63.6(a)	Yes.	
63.6(b)(1)–63.6(b)(5)	No	Subpart CC specifies compliance dates and notifications for sources subject to subpart CC.
63.6(b)(6)	No	Reserved.
63.6(b)(7)	Yes.	
63.6(c)(1)–63.6(c)(2)	No	§63.640 of subpart CC specifies the compliance date.
63.6(c)(3)–63.6(c)(4)	No	Reserved.
63.6(c)(5)	Yes.	
63.6(d)	No	Reserved.
63.6(e)(1)(i) and (ii)	No	See §63.642(n) for general duty requirement.
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	No	Reserved.
63.6(e)(3)(i)	No.	

TABLE 6—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC [a]—Continued

Reference	Applies to subpart CC	Comment
63.6(e)(3)(ii)	No	Reserved.
63.6(e)(3)(iii)–63.6(e)(3)(ix)	No.	
63.6(f)(1)	No.	
63.6(f)(2)	Yes	Except the phrase "as specified in §63.7(c)" in §63.6(f)(2)(iii)(D) does not apply because this subpart does not require a site-specific test plan.
63.6(f)(3)	Yes	Except the cross-references to §63.6(f)(1) and (e)(1)(i) are changed to §63.642(n) and performance test results may be written or electronic.
63.6(g)	Yes.	
63.6(h)(1)	No.	
63.6(h)(2)	Yes	Except §63.6(h)(2)(ii), which is reserved.
63.6(h)(3)	No	Reserved.
63.6(h)(4)	No	Notification of visible emission test not required in subpart CC.
63.6(h)(5)	No	Visible emission requirements and timing is specified in §63.645(i) of subpart CC.
63.6(h)(6)	Yes.	
63.6(h)(7)	No	Subpart CC does not require opacity standards.
63.6(h)(8)	Yes	Except performance test results may be written or electronic.
63.6(h)(9)	No	Subpart CC does not require opacity standards.
63.6(i)	Yes	Except for §63.6(i)(15), which is reserved.
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)	Yes	Except test results must be submitted in the Notification of Compliance Status report due 150 days after compliance date, as specified in §63.655(f), unless they are required to be submitted electronically in accordance with §63.655(h)(9). Test results required to be submitted electronically must be submitted by the date the Notification of Compliance Status report is submitted.
63.7(a)(3)	Yes.	
63.7(a)(4)	Yes.	
63.7(b)	Yes	Except this subpart requires notification of performance test at least 30 days (rather than 60 days) prior to the performance test.
63.7(c)	No	Subpart CC does not require a site-specific test plan.
63.7(d)	Yes.	
63.7(e)(1)	No	See §63.642(d)(3).
63.7(e)(2)–63.7(e)(4)	Yes.	
63.7(f)	Yes	Except that additional notification or approval is not required for alternatives directly specified in Subpart CC.
63.7(g)	No	Performance test reporting specified in §63.655(f).
63.7(h)(1)	Yes.	
63.7(h)(2)	Yes.	
63.7(h)(3)	Yes	Yes, except site-specific test plans shall not be required, and where §63.7(h)(3)(i) specifies waiver submittal date, the date shall be 90 days prior to the Notification of Compliance Status report in §63.655(f).
63.7(h)(4)(i)	Yes.	
63.7(h)(4)(ii)	No	Site-specific test plans are not required in subpart CC.
63.7(h)(4)(iii) and (iv)	Yes.	
63.7(h)(5)	Yes.	
63.8(a)(1) and (2)	Yes.	
63.8(a)(3)	No	Reserved.
63.8(a)(4)	Yes	Except that for a flare complying with §63.670, the cross-reference to §63.11 in this paragraph does not include §63.11(b).
63.8(b)	Yes.	
63.8(c)(1)	Yes	Except §63.8(c)(1)(i) and (iii).
63.8(c)(1)(i)	No	See §63.642(n).
63.8(c)(1)(iii)	No.	
63.8(c)(2)	Yes.	

TABLE 6—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC [a]—Continued

Reference	Applies to subpart CC	Comment
63.8(c)(3)	Yes	Except that verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would monitor accurately.
63.8(c)(4)	Yes	Except that for sources other than flares, this subpart specifies the monitoring cycle frequency specified in §63.8(c)(4)(ii) is "once every hour" rather than "for each successive 15-minute period."
63.8(c)(5)–63.8(c)(8)	No	This subpart specifies continuous monitoring system requirements.
63.8(d)	No	This subpart specifies quality control procedures for continuous monitoring systems.
63.8(e)	Yes	Except that results are to be submitted electronically if required by §63.655(h)(9).
63.8(f)(1)	Yes.	
63.8(f)(2)	Yes.	
63.8(f)(3)	Yes.	
63.8(f)(4)(i)	No	Timeframe for submitting request is specified in §63.655(h)(5)(i) of subpart CC.
63.8(f)(4)(ii)	Yes.	
63.8(f)(4)(iii)	No	Timeframe for submitting request is specified in §63.655(h)(5)(i) of subpart CC.
63.8(f)(5)	Yes.	
63.8(f)(6)	No	Subpart CC does not require continuous emission monitors.
63.8(g)	No	This subpart specifies data reduction procedures in §§63.655(i)(3) and 63.671(d).
63.9(a)	Yes	Except that the owner or operator does not need to send a copy of each notification submitted to the Regional Office of the EPA as stated in §63.9(a)(4)(ii).
63.9(b)(1)	Yes	Except the notification of compliance status report specified in §63.655(f) of subpart CC may also serve as the initial compliance notification required in §63.9(b)(1)(iii).
63.9(b)(2)	No	A separate Initial Notification report is not required under subpart CC.
63.9(b)(3)	No	Reserved.
63.9(b)(4)	Yes	Except for subparagraphs §63.9(b)(4)(ii) through (iv), which are reserved.
63.9(b)(5)	Yes.	
63.9(c)	Yes.	
63.9(d)	Yes.	
63.9(e)	No	Subpart CC requires notification of performance test at least 30 days (rather than 60 days) prior to the performance test and does not require a site-specific test plan.
63.9(f)	No	Subpart CC does not require advanced notification of visible emissions test.
63.9(g)	No.	
63.9(h)	No	Subpart CC §63.655(f) specifies Notification of Compliance Status report requirements.
63.9(i)	Yes.	
63.9(j)	Yes.	
63.9(k)	Yes	Only as specified in §63.9(j).
63.10(a)	Yes.	
63.10(b)(1)	No	§63.655(i) of subpart CC specifies record retention requirements.
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No	§63.655(i) specifies the records that must be kept.
63.10(b)(2)(iii)	No.	
63.10(b)(2)(iv)	No.	
63.10(b)(2)(v)	No.	
63.10(b)(2)(vi)	Yes.	
63.10(b)(2)(vii)	No	§63.655(i) specifies records to be kept for parameters measured with continuous monitors.
63.10(b)(2)(viii)	Yes.	
63.10(b)(2)(ix)	Yes.	

TABLE 6—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC [a]—Continued

Reference	Applies to subpart CC	Comment
63.10(b)(2)(x)	Yes.	
63.10(b)(2)(xi)	No.	
63.10(b)(2)(xii)	Yes.	
63.10(b)(2)(xiii)	No.	
63.10(b)(2)(xiv)	Yes.	
63.10(b)(3)	No.	
63.10(c)(1)–63.10(c)(6)	No.	
63.10(c)(7) and 63.10(c)(8)	Yes.	
63.10(c)(9)	No	Reserved.
63.10(c)(10)–63.10(c)(11)	No	§63.655(i) specifies the records that must be kept.
63.10(c)(12)–63.10(c)(15)	No.	
63.10(d)(1)	Yes.	
63.10(d)(2)	No	Although §63.655(f) specifies performance test reporting, EPA may approve other timeframes for submittal of performance test data.
63.10(d)(3)	No	Results of visible emissions test are included in Compliance Status Report as specified in §63.655(f).
63.10(d)(4)	Yes.	
63.10(d)(5)	No	§63.655(g) specifies the reporting requirements.
63.10(e)	No.	
63.10(f)	Yes.	
63.11	Yes	Except that flares complying with §63.670 are not subject to the requirements of §63.11(b).
63.12–63.16	Yes.	

[a] Wherever subpart A of this part specifies ''postmark'' dates, submittals may be sent by methods other than the U.S. Mail (*e.g.,* by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.

TABLE 7—FRACTION MEASURED (F_M), FRACTION EMITTED (F_E), AND FRACTION REMOVED (FR) FOR HAP COMPOUNDS IN WASTEWATER STREAMS

Chemical name	CAS No.[a]	F_m	F_c	Fr
Benzene	71432	1.00	0.80	0.99
Biphenyl	92524	0.86	0.45	0.99
Butadiene (1,3)	106990	1.00	0.98	0.99
Carbon disulfide	75150	1.00	0.92	0.99
Cumene	98828	1.00	0.88	0.99
Dichloroethane (1,2-) (Ethylene dichloride)	107062	1.00	0.64	0.99
Ethylbenzene	100414	1.00	0.83	0.99
Hexane	110543	1.00	1.00	0.99
Methanol	67561	0.85	0.17	0.31
Methyl isobutyl ketone (hexone)	108101	0.98	0.53	0.99
Methyl tert butyl ether	1634044	1.00	0.57	0.99
Naphthalene	91203	0.99	0.51	0.99
Trimethylpentane (2,2,4)	540841	1.00	1.00	0.99
xylene (m-)	108383	1.00	0.82	0.99
xylene (o-)	95476	1.00	0.79	0.99
xylene (p-)	106423	1.00	0.82	0.99

[a] CAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

TABLE 8—VALVE MONITORING FREQUENCY FOR PHASE III

Performance level	Valve monitoring frequency
Leaking valves [a] (%)	
≥4	Monthly or QIP. [b]
<4	Quarterly.
<3	Semiannual.
<2	Annual.

[a] Percent leaking valves is calculated as a rolling average of two consecutive monitoring periods.
[b] QIP = Quality improvement program. Specified in §63.175 of subpart H of this part.

TABLE 9—VALVE MONITORING FREQUENCY FOR ALTERNATIVE

Performance level: Leaking valves[a] (%)	Valve monitoring frequency under § 63.649 alternative
≥5	Monthly or QIP.[b]
<5	Quarterly.
<4	Semiannual.
<3	Annual.

[a] Percent leaking valves is calculated as a rolling average of two consecutive monitoring periods.
[b] QIP = Quality improvement program. Specified in § 63.175 of subpart H of this part.

TABLE 10—MISCELLANEOUS PROCESS VENTS—MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAP EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

Control device	Parameters to be monitored[a]	Recordkeeping and reporting requirements for monitored parameters
Thermal incinerator	Firebox temperature[b] (63.644(a)(1)(i)).	1. Continuous records[c]. 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS[d]. 3. Record the daily average firebox temperature for each operating day[e]. 4. Report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected[f]—PR[g].
Catalytic incinerator	Temperature upstream and downstream of the catalyst bed (63.644(a)(1)(ii)).	1. Continuous records[c]. 2. Record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test—NCS[d]. 3. Record the daily average upstream temperature and temperature difference across the catalyst bed for each operating day[e]. 4. Report all daily average upstream temperatures that are outside the range established in the NCS or operating permit—PR[g]. 5. Report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit—PR[g]. 6. Report all operating days when insufficient monitoring data are collected[f].
Boiler or process heater with a design heat capacity less than 44 megawatts where the vent stream is *not* introduced into the flame zone[h][i].	Firebox temperature[b] (63.644(a)(4)).	1. Continuous records[c]. 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS[d]. 3. Record the daily average firebox temperature for each operating day[e]. 4. Report all daily average firebox temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected[f]—PR[g].
Flare (if meeting the requirements of §§ 63.643 and 63.644).	Presence of a flame at the pilot light (63.644(a)(2)).	1. Hourly records of whether the monitor was continuously operating and whether a pilot flame was continuously present during each hour. 2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination—NCS[d]. 3. Record the times and durations of all periods when all pilot flames for a flare are absent or the monitor is not operating. 4. Report the times and durations of all periods when all pilot flames for a flare are absent or the monitor is not operating.

TABLE 10—MISCELLANEOUS PROCESS VENTS—MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAP EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME—Continued

Control device	Parameters to be monitored[a]	Recordkeeping and reporting requirements for monitored parameters
Flare (if meeting the requirements of §§ 63.670 and 63.671).	The parameters specified in § 63.670.	1. Records as specified in § 63.655(i)(9). 2. Report information as specified in § 63.655(g)(11)—PR.[g]
All control devices	Presence of flow diverted to the atmosphere from the control device (§ 63.644(c)(1)) *or*	1. Hourly records of whether the flow indicator was operating and whether flow was detected at any time during each hour. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating—PR.[g]
	Monthly inspections of sealed valves (§ 63.644(c)(2)).	1. Records that monthly inspections were performed. 2. Record and report all monthly inspections that show the valves are not closed or the seal has been changed—PR.[g]

[a] Regulatory citations are listed in parentheses.
[b] Monitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.
[c] "Continuous records" is defined in § 63.641.
[d] NCS = Notification of Compliance Status Report described in § 63.655.
[e] The daily average is the average of all recorded parameter values for the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.
[f] When a period of excess emission is caused by insufficient monitoring data, as described in § 63.655(g)(6)(i)(C) or (D), the duration of the period when monitoring data were not collected shall be included in the Periodic Report.
[g] PR = Periodic Reports described in § 63.655(g).
[h] No monitoring is required for boilers and process heaters with a design heat capacity ≥44 megawatts or for boilers and process heaters where all vent streams are introduced into the flame zone. No recordkeeping or reporting associated with monitoring is required for such boilers and process heaters.
[i] Process vents that are routed to refinery fuel gas systems are not regulated under this subpart provided that on and after January 30, 2019, any flares receiving gas from that fuel gas system are in compliance with § 63.670. No monitoring, recordkeeping, or reporting is required for boilers and process heaters that combust refinery fuel gas.

TABLE 11—COMPLIANCE DATES AND REQUIREMENTS

If the construction/ reconstruction date is . . .	Then the owner or operator must comply with . . .	And the owner or operator must achieve compliance . . .	Except as provided in . . .
(1) After June 30, 2014	(i) Requirements for new sources in §§ 63.643(a) and (b); 63.644, 63.645, and 63.647; 63.648(a) through (i) and (j)(1) and (2); 63.649 through 63.651; and 63.654 through 63.656.	Upon initial startup	§ 63.640(k), (l) and (m).
	(ii) Requirements for new sources in §§ 63.642(n), 63.643(c), 63.648(j)(3), (6) and (7); and 63.657 through 63.660.	Upon initial startup or February 1, 2016, whichever is later.	§ 63.640(k), (l) and (m).
(2) After September 4, 2007 but on or before June 30, 2014.	(i) Requirements for new sources in §§ 63.643(a) and (b); 63.644, 63.645, and 63.647; 63.648(a) through (i) and (j)(1) and (2); and 63.649 through 63.651, 63.655 and 63.656.	Upon initial startup	§ 63.640(k), (l) and (m).
	(ii) Requirements for new sources in § 63.654.	Upon initial startup or October 28, 2009, whichever is later.	§ 63.640(k), (l) and (m).
	(iii) Requirements for new sources in either § 63.646 or § 63.660 or, if applicable, § 63.640(n).	Upon initial startup, but you must transition to comply with only the requirements in § 63.660 or, if applicable, § 63.640(n) on or before April 29, 2016.	§§ 63.640(k), (l) and (m) and 63.660(d).
	(iv) Requirements for existing sources in § 63.643(c).	On or before December 26, 2018.	§§ 63.640(k), (l) and (m) and 63.643(d).
	(v) Requirements for existing sources in § 63.658.	On or before January 30, 2018.	§ 63.640(k), (l) and (m).
	(vi) Requirements for existing sources in § 63.648 (j)(3), (6) and (7) and § 63.657.	On or before January 30, 2019.	§ 63.640(k), (l) and (m).

TABLE 11—COMPLIANCE DATES AND REQUIREMENTS—Continued

If the construction/ reconstruction date is . . .	Then the owner or operator must comply with . . .	And the owner or operator must achieve compliance . . .	Except as provided in . . .
	(vii) Requirements in § 63.642 (n).	Upon initial startup or February 1, 2016, whichever is later.	
(3) After July 14, 1994 but on or before September 4, 2007.	(i) Requirements for new sources in §§ 63.643(a) and (b); 63.644, 63.645, and 63.647; 63.648(a) through (i) and (j)(1) and (2); and 63.649 through 63.651, 63.655 and 63.656.	Upon initial startup or August 18, 1995, whichever is later.	§ 63.640(k), (l) and (m).
	(ii) Requirements for existing sources in § 63.654.	On or before October 29, 2012.	§ 63.640(k), (l) and (m).
	(iii) Requirements for new sources in either § 63.646 or § 63.660 or, if applicable, § 63.640(n).	Upon initial startup, but you must transition to comply with only the requirements in § 63.660 or, if applicable, § 63.640(n) on or before April 29, 2016.	§§ 63.640(k), (l) and (m) and 63.660(d).
	(iv) Requirements for existing sources in § 63.643(c).	On or before December 26, 2018.	§§ 63.640(k), (l) and (m) and 63.643(d).
	(v) Requirements for existing sources in § 63.658.	On or before January 30, 2018.	§ 63.640(k), (l) and (m).
	(vi) Requirements for existing sources in §§ 63.648(j)(3), (6) and (7) and 63.657.	On or before January 30, 2019.	§ 63.640(k), (l) and (m).
	(vii) Requirements in § 63.642(n).	Upon initial startup or February 1, 2016, whichever is later.	
(4) On or before July 14, 1994.	(i) Requirements for existing sources in §§ 63.648(a) through (i) and (j)(1) and (2); and 63.649, 63.655 and 63.656.	(A) On or before August 18, 1998.	(*1*) § 63.640(k), (l) and (m). (*2*) § 63.6(c)(5) or unless an extension has been granted by the Administrator as provided in § 63.6(i).
	(ii) Either the requirements for existing sources in §§ 63.643(a) and (b); 63.644, 63.645, 63.647, 63.650 and 63.651; and item (4)(v) of this table. OR The requirements in §§ 63.652 and 63.653.	(A) On or before August 18, 1998.	(*1*) § 63.640(k), (l) and (m). (*2*) § 63.6(c)(5) or unless an extension has been granted by the Administrator as provided in § 63.6(i).
	(iii) Requirements for existing sources in either § 63.646 or § 63.660 or, if applicable, § 63.640(n).	On or before August 18, 1998, but you must transition to comply with only the requirements in § 63.660 or, if applicable, § 63.640(n) on or before April 29, 2016.	§§ 63.640(k), (l) and (m) and 63.660(d).
	(iv) Requirements for existing sources in § 63.654.	On or before October 29, 2012.	§ 63.640(k), (l) and (m).
	(v) Requirements for existing sources in § 63.643(c).	On or before December 26, 2018.	§§ 63.640(k), (l) and (m) and 63.643(d).
	(vi) Requirements for existing sources in § 63.658.	On or before January 30, 2018.	§ 63.640(k), (l) and (m).
	(vii) Requirements for existing sources in §§ 63.648(j)(3), (6) and (7) and 63.657.	On or before January 30, 2019.	§ 63.640(k), (l) and (m).
	(viii) Requirements in § 63.642 (n).	Upon initial startup or February 1, 2016, whichever is later.	

TABLE 12—INDIVIDUAL COMPONENT PROPERTIES

Component	Molecular formula	MW_i (pounds per pound-mole)	CMN_i (mole per mole)	NHV_i (British thermal units per standard cubic foot)	LFL_i (volume %)
Acetylene	C_2H_2	26.04	2	1,404	2.5

TABLE 12—INDIVIDUAL COMPONENT PROPERTIES—Continued

Component	Molecular formula	MW_i (pounds per pound-mole)	CMN_i (mole per mole)	NHV_i (British thermal units per standard cubic foot)	LFL_i (volume %)
Benzene	C_6H_6	78.11	6	3,591	1.3
1,2-Butadiene	C_4H_6	54.09	4	2,794	2.0
1,3-Butadiene	C_4H_6	54.09	4	2,690	2.0
iso-Butane	C_4H_{10}	58.12	4	2,957	1.8
n-Butane	C_4H_{10}	58.12	4	2,968	1.8
cis-Butene	C_4H_8	56.11	4	2,830	1.6
iso-Butene	C_4H_8	56.11	4	2,928	1.8
trans-Butene	C_4H_8	56.11	4	2,826	1.7
Carbon Dioxide	CO_2	44.01	1	0	∞
Carbon Monoxide	CO	28.01	1	316	12.5
Cyclopropane	C_3H_6	42.08	3	2,185	2.4
Ethane	C_2H_6	30.07	2	1,595	3.0
Ethylene	C_2H_4	28.05	2	1,477	2.7
Hydrogen	H_2	2.02	0	1,212[a]	4.0
Hydrogen Sulfide	H_2S	34.08	0	587	4.0
Methane	CH_4	16.04	1	896	5.0
Methyl-Acetylene	C_3H_4	40.06	3	2,088	1.7
Nitrogen	N_2	28.01	0	0	∞
Oxygen	O_2	32.00	0	0	∞
Pentane+ (C5+)	C_5H_{12}	72.15	5	3,655	1.4
Propadiene	C_3H_4	40.06	3	2,066	2.16
Propane	C_3H_8	44.10	3	2,281	2.1
Propylene	C_3H_6	42.08	3	2,150	2.4
Water	H_2O	18.02	0	0	∞

[a] The theoretical net heating value for hydrogen is 274 Btu/scf, but for the purposes of the flare requirement in this subpart, a net heating value of 1,212 Btu/scf shall be used.

TABLE 13—CALIBRATION AND QUALITY CONTROL REQUIREMENTS FOR CPMS

Parameter	Minimum accuracy requirements	Calibration requirements
Temperature	±1 percent over the normal range of temperature measured, expressed in degrees Celsius (C), or 2.8 degrees C, whichever is greater.	Conduct calibration checks at least annually; conduct calibration checks following any period of more than 24 hours throughout which the temperature exceeded the manufacturer's specified maximum rated temperature or install a new temperature sensor. At least quarterly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion, unless the CPMS has a redundant temperature sensor. Record the results of each calibration check and inspection. Locate the temperature sensor in a position that provides a representative temperature; shield the temperature sensor system from electromagnetic interference and chemical contaminants.
Flow Rate for All Flows Other Than Flare Vent Gas.	±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow.	Conduct a flow sensor calibration check at least biennially (every two years); conduct a calibration check following any period of more than 24 hours throughout which the flow rate exceeded the manufacturer's specified maximum rated flow rate or install a new flow sensor.
	±5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow.	At least quarterly, inspect all components for leakage, unless the CPMS has a redundant flow sensor.
	±5 percent over the normal range measured for mass flow.	Record the results of each calibration check and inspection. Locate the flow sensor(s) and other necessary equipment (such as straightening vanes) in a position that provides representative flow; reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

TABLE 13—CALIBRATION AND QUALITY CONTROL REQUIREMENTS FOR CPMS—Continued

Parameter	Minimum accuracy requirements	Calibration requirements
Flare Vent Gas Flow Rate.	±20 percent of flow rate at velocities ranging from 0.03 to 0.3 meters per second (0.1 to 1 feet per second).	Conduct a flow sensor calibration check at least biennially (every two years); conduct a calibration check following any period of more than 24 hours throughout which the flow rate exceeded the manufacturer's specified maximum rated flow rate or install a new flow sensor.
	±5 percent of flow rate at velocities greater than 0.3 meters per second (1 feet per second).	At least quarterly, inspect all components for leakage, unless the CPMS has a redundant flow sensor.
		Record the results of each calibration check and inspection.
		Locate the flow sensor(s) and other necessary equipment (such as straightening vanes) in a position that provides representative flow; reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
Pressure	±5 percent over the normal operating range or 0.12 kilopascals (0.5 inches of water column), whichever is greater.	Review pressure sensor readings at least once a week for straightline (unchanging) pressure and perform corrective action to ensure proper pressure sensor operation if blockage is indicated.
		Using an instrument recommended by the sensor's manufacturer, check gauge calibration and transducer calibration annually; conduct calibration checks following any period of more than 24 hours throughout which the pressure exceeded the manufacturer's specified maximum rated pressure or install a new pressure sensor.
		At least quarterly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage, unless the CPMS has a redundant pressure sensor.
		Record the results of each calibration check and inspection.
		Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure and minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.
Net Heating Value by Calorimeter.	±2 percent of span	Specify calibration requirements in your site specific CPMS monitoring plan. Calibration requirements should follow manufacturer's recommendations at a minimum.
		Temperature control (heated and/or cooled as necessary) the sampling system to ensure proper year-round operation.
		Where feasible, select a sampling location at least two equivalent diameters downstream from and 0.5 equivalent diameters upstream from the nearest disturbance. Select the sampling location at least two equivalent duct diameters from the nearest control device, point of pollutant generation, air in-leakages, or other point at which a change in the pollutant concentration or emission rate occurs.
Net Heating Value by Gas Chromatograph.	As specified in Performance Specification 9 of 40 CFR part 60, appendix B.	Follow the procedure in Performance Specification 9 of 40 CFR part 60, appendix B, except that a single daily mid-level calibration check can be used (rather than triplicate analysis), the multi-point calibration can be conducted quarterly (rather than monthly), and the sampling line temperature must be maintained at a minimum temperature of 60 °C (rather than 120 °C).

TABLE 13—CALIBRATION AND QUALITY CONTROL REQUIREMENTS FOR CPMS—Continued

Parameter	Minimum accuracy requirements	Calibration requirements
Net Heating Value by Mass Spectrometer.	As specified in Performance Specifications 9 of 40 CFR part 60, appendix B.	Follow the procedure in Performance Specification 9 of 40 CFR part 60, appendix B, including performing an initial multi-point calibration check at three concentrations following the procedure in section 10.1 of Performance Specification 9, except that the multi-point calibration can be conducted quarterly (rather than monthly), and the sampling line temperature must be maintained at a minimum temperature of 60 °C (rather than 120 °C).
Hydrogen analyzer	±2 percent over the concentration measured or 0.1 volume percent, whichever is greater.	Specify calibration requirements in your site specific CPMS monitoring plan. Calibration requirements should follow manufacturer's recommendations at a minimum. Where feasible, select the sampling location at least two equivalent duct diameters from the nearest control device, point of pollutant generation, air in-leakages, or other point at which a change in the pollutant concentration occurs.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29881, 29882, June 12, 1996; 63 FR 44142, 44143, Aug. 18, 1998; 74 FR 55688, Oct. 28, 2009; 75 FR 37731, June 30, 2010; 80 FR 75269, Dec. 1, 2015; 81 FR 45241, July 13, 2016; 83 FR 60722, Nov. 26, 2018; 85 FR 73893, Nov. 19, 2020; 89 FR 23862, Apr. 4, 2024]

Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

SOURCE: 61 FR 34158, July 1, 1996, unless otherwise noted.

§ 63.680 Applicability and designation of affected sources.

(a) The provisions of this subpart apply to the owner and operator of a plant site for which both of the conditions specified in paragraphs (a)(1) and (a)(2) of this section are applicable. If either one of these conditions does not apply to the plant site, then the owner and operator of the plant site are not subject to the provisions of this subpart.

(1) The plant site is a major source of hazardous air pollutant (HAP) emissions as defined in 40 CFR 63.2.

(2) At the plant site is located one or more of operations that receives off-site materials as specified in paragraph (b) of this section and the operations is one of the following waste management operations or recovery operations as specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section.

(i) A waste management operation that receives off-site material and the operation is regulated as a hazardous waste treatment, storage, and disposal facility (TSDF) under either 40 CFR part 264 or part 265.

(ii) A waste management operation that treats wastewater which is an off-site material and the operation is exempted from regulation as a hazardous waste treatment, storage, and disposal facility under 40 CFR 264.1(g)(6) or 40 CFR 265.1(c)(10).

(iii) A waste management operation that treats wastewater which is an off-site material and the operation meets both of the following conditions:

(A) The operation is subject to regulation under either section 402 or 307(b) of the Clean Water Act but is not owned by a ''state'' or ''municipality'' as defined by section 502(3) and 502(4), respectively, of the Clean Water Act; and

(B) The treatment of wastewater received from off-site is the predominant activity performed at the plant site.

(iv) A recovery operation that recycles or reprocesses hazardous waste which is an off-site material and the operation is exempted from regulation as a hazardous waste treatment, disposal, and storage facility under 40 CFR 264.1(g)(2) or 40 CFR 265.1(c)(6).

(v) A recovery operation that recycles or reprocesses used solvent which

is an off-site material and the operation is not part of a chemical, petroleum, or other manufacturing process that is required to use air emission controls by another subpart of 40 CFR part 63 or 40 CFR part 61.

(vi) A recovery operation that re-refines or reprocesses used oil which is an off-site material and the operation is regulated under 40 CFR 279 subpart F—Standards for Used Oil Processors and Refiners.

(b) For the purpose of implementing this subpart, an off-site material is a material that meets all of the criteria specified in paragraph (b)(1) of this section but is not one of the materials specified in paragraph (b)(2) of this section.

(1) An off-site material is a material that meets all of the criteria specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section. If any one of these criteria do not apply to the material, then the material is not an off-site material subject to this subpart.

(i) The material is a waste, used oil, or used solvent as defined in § 63.681 of this subpart;

(ii) The waste, used oil, or used solvent is not produced or generated within the plant site, but the material is delivered, transferred, or otherwise moved to the plant site from a location outside the boundaries of the plant site; and

(iii) The waste, used oil, or used solvent contains one or more of the hazardous air pollutants (HAP) listed in Table 1 of this subpart based on the composition of the material at the point-of-delivery, as defined in § 63.681 of this subpart.

(2) For the purpose of implementing this subpart, the following materials are not off-site materials:

(i) Household waste as defined in 40 CFR 258.2.

(ii) Radioactive mixed waste managed in accordance with all applicable regulations under Atomic Energy Act and Nuclear Waste Policy Act authorities.

(iii) Waste that is generated as a result of implementing remedial activities required under the Resource Conservation and Recovery Act (RCRA) corrective action authorities (RCRA sections 3004(u), 3004(v), or 3008(h)), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authorities, or similar Federal or State authorities.

(iv) Waste containing HAP that is generated by residential households (e.g., old paint, home garden pesticides) and subsequently is collected as a community service by government agencies, businesses, or other organizations for the purpose of promoting the proper disposal of this waste.

(v) Waste that is transferred from a chemical manufacturing plant or other facility for which the owner or operator of the facility from which the waste is transferred has complied with the provisions of the air emission control standards for process wastewater specified by another subpart of this part. This exemption does not apply to a source which complies with another subpart of this part by transferring its wastewater off-site for control.

(vi) Waste that is transferred from a chemical manufacturing plant, petroleum refinery, or coke by-product recovery plant which is subject to 40 CFR part 61, subpart FF—National Emission Standards for Benzene Waste Operations, and for which both of the following conditions apply to the waste:

(A) The waste is generated at a facility that is not exempted under the provisions of 40 CFR 61.342(a) from meeting the air emission control standards of 40 CFR part 61, subpart FF; and

(B) The owner or operator of the facility from which the waste is transferred has complied with the provisions of 40 CFR 61.342(f)(2).

(vii) Ship ballast water pumped from a ship to an onshore wastewater treatment facility.

(viii) Hazardous waste that is stored for 10 days or less at a transfer facility in compliance with the provisions of 40 CFR 263.12.

(c) *Affected sources*—(1) *Off-site material management units.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of off-site material management units associated with the operation. An off-site material management unit is a tank, container, surface impoundment, oil-water separator, organic-water separator, or

transfer system used to manage off-site material. For the purpose of implementing the standards under this subpart, a unit that meets the definition of a tank or container but also is equipped with a vent that serves as a process vent for any of the processes listed in paragraphs (c)(2)(i) through (c)(2)(vi) of this section is not an off-site material management unit but instead is a process vent and is to be included in the appropriate affected source group under paragraph (c)(2) of this section. Examples of such a unit may include, but are not limited to, a distillate receiver vessel, a primary condenser, a bottoms receiver vessel, a surge control tank, a separator tank, and a hot well.

(2) *Process vents.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of process equipment associated with the process vents for the processes listed in paragraphs (c)(2)(i) through (c)(2)(vi) of this section.

(i) Distillation process used for the treatment, recycling, or recovery of off-site material. Distillation means a process, either batch or continuous, separating one or more off-site material feed streams into two or more exit streams having different component concentrations from those in the feed stream or streams. The separation is achieved by the redistribution of the components between the liquid and vapor phases as they approach equilibrium within the distillation unit.

(ii) Fractionation process used for the treatment, recycling, or recovery of off-site material. Fractionation means a liquid mixture separation process or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(iii) Thin-film evaporation process used for the treatment, recycling, or recovery of off-site material. Thin-film evaporation means a liquid mixture separation process or method that uses a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(iv) Solvent extraction process used for the treatment, recycling, or recovery of off-site material. Solvent extraction means a separation process or method in which a solid or a solution is contacted with a liquid solvent (the material and the solvent being relatively insoluble in each other) to preferentially dissolve and transfer one or more components into the solvent.

(v) Steam stripping process used for the treatment, recycling, or recovery of off-site material. Steam stripping means a liquid mixture separation process or method in which vaporization of the volatile components of a liquid mixture occurs by the introduction of steam directly into the process.

(vi) Gas stripping process used for the treatment, recycling, or recovery of off-site material. Gas stripping means a desorption process or method used to transfer one or more volatile components from a liquid mixture into a gas stream either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are examples of the process configurations used for contacting the gas and a liquid.

(3) *Equipment leaks.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of equipment components for which each component meets all of the conditions specified in paragraphs (c)(3)(i) through (c)(3)(iii) of this section. If any one of these conditions do not apply to an equipment component, then that component is not part of the affected source for equipment leaks.

(i) The equipment component is a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system;

(ii) The equipment component contains or contacts off-site material having a total HAP concentration equal to or greater than 10 percent by weight; and

(iii) The equipment component is intended to operate for 300 hours or more during a calendar year in off-site material service, as defined in § 63.681 of this subpart.

(d) *Facility-wide exemption.* The owner or operator of affected sources subject to this subpart is exempted from the requirements of §§ 63.682 through 63.699 of this subpart in situations when the total annual quantity of the HAP that is contained in the off-site material received at the plant site is less than 1 megagram per year. For a plant site to be exempted under the provisions of this paragraph (d), the owner or operator must meet the requirements in paragraphs (d)(1) through (d)(3) of this section.

(1) The owner or operator must prepare an initial determination of the total annual HAP quantity in the off-site material received at the plant site. This determination is based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point-of-delivery for each off-site material stream.

(2) The owner or operator must prepare a new determination whenever the extent of changes to the quantity or composition of the off-site material received at the plant site could cause the total annual HAP quantity in the off-site material received at the plant site to exceed the limit of 1 megagram per year.

(3) The owner or operator must maintain documentation to support the owner's or operator's determination of the total annual HAP quantity in the off-site material received at the plant site. This documentation must include the basis and data used for determining the HAP content of the off-site material.

(e) *Compliance dates*—(1) *Existing sources.* The owner or operator of an affected source that commenced construction or reconstruction before October 13, 1994, must achieve compliance with the provisions of this subpart on or before the date specified in paragraphs (e)(1)(i), (ii), or (iii) of this section as applicable to the affected source.

(i) For an affected source that commenced construction or reconstruction before October 13, 1994 and receives off-site material for the first time before February 1, 2000, the owner or operator of this affected source must achieve compliance with the provisions of the subpart (except §§ 63.685(b)(1)(ii), 63.691(b)(2), and 63.691(c)(3)(i) and (ii)) on or before February 1, 2000 unless an extension has been granted by the Administrator as provided in § 63.6(i). These existing affected sources shall be in compliance with the tank requirements of § 63.685(b)(1)(ii) 2 years after the publication date of the final amendments on March 18, 2015, the equipment leak requirements of § 63.691(b)(2) 1 year after the publication date of the final amendments on March 18, 2015, and the pressure relief device monitoring requirements of § 63.691(c)(3)(i) and (ii) 3 years after the publication date of the final amendments on March 18, 2015.

(ii) For an affected source that commenced construction or reconstruction before October 13, 1994, but receives off-site material for the first time on or after February 1, 2000, but before March 18, 2015, the owner or operator of the affected source must achieve compliance with the provisions of this subpart (except §§ 63.685(b)(1)(ii), 63.691(b)(2), and 63.691(c)(3)(i) and (ii)) upon the first date that the affected source begins to manage off-site material. These existing affected sources shall be in compliance with the tank requirements of § 63.685(b)(1)(ii) 2 years after the publication date of the final amendments on March 18, 2015, the equipment leak requirements of § 63.691(b)(2) 1 year after the publication date of the final amendments on March 18, 2015, and the pressure relief device monitoring requirements of § 63.691(c)(3)(i) and (ii) 3 years after the publication date of the final amendments on March 18, 2015.

(iii) For an affected source that commenced construction or reconstruction before October 13, 1994, but receives off-site material for the first time on or after March 18, 2015, the owner or operator of the affected source must achieve compliance with the provisions of this subpart (except §§ 63.685 (b)(1)(ii), 63.691(b)(2), and 63.691(c)(3)(i) and (ii)) upon the first date that the affected source begins to manage off-site material. These existing affected

sources shall be in compliance with the tank requirements of § 63.685(b)(1)(ii) 2 years after the publication date of the final amendments on March 18, 2015, the equipment leak requirements of § 63.691(b)(2) 1 year after the publication date of the final amendments on March 18, 2015, and the pressure relief device monitoring requirements of § 63.691(c)(3)(i) and (ii) 3 years after the publication date of the final amendments on March 18, 2015.

(2) *New sources.* The owner or operator of an affected source for which construction or reconstruction commences on or after October 13, 1994, must achieve compliance with the provisions of this subpart (except §§ 63.685(b)(2), 63.691(b)(2), and 63.691(c)(3)(i) and (ii)) on or before July 1, 1996, or upon initial startup of operations, whichever date is later as provided in 40 CFR 63.6(b). New affected sources that commenced construction or reconstruction after October 13, 1994, but on or before July 2, 2014, shall be in compliance with the tank requirements of § 63.685(b)(2) 2 years after the publication date of the final amendments, the equipment leak requirements of § 63.691(b)(2) 1 year after the publication date of the final amendments, and the pressure relief device monitoring requirements of § 63.691(c)(3)(i) and (ii) 3 years after the effective date of the final amendments. New affected sources that commence construction or reconstruction after July 2, 2014, shall be in compliance with the tank requirements of § 63.685(b)(2), the equipment leak requirements of § 63.691(b)(2), and the pressure relief device monitoring requirements of § 63.691(c)(3)(i) and (ii) upon initial startup or by the effective date of the final amendments, whichever is later.

(f) The provisions of 40 CFR part 63, subpart A—General Provisions that apply and those that do not apply to this subpart are specified in Table 2 of this subpart.

(g) *Applicability of this subpart.* (1) The emission limitations set forth in this subpart and the emission limitations referred to in this subpart shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies.

(2) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with this subpart during times when emissions are being routed to such items of equipment, if the shutdown would contravene requirements of this subpart applicable to such items of equipment.

[61 FR 34158, July 1, 1996, as amended at 65 FR 38963, July 20, 1999; 80 FR 14271, Mar. 18, 2015]

§ 63.681 Definitions.

All terms used in this subpart shall have the meaning given to them in this section, 40 CFR 63.2 of this part, and the Act.

Boiler means an enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

Bypass means diverting a process vent or closed vent system stream to the atmosphere such that it does not first pass through an emission control device.

Closed-vent system means a system that is not open to the atmosphere and is composed of hard-piping, ductwork, connections, and, if necessary, fans, blowers, or other flow-inducing devices that conveys gas or vapor from an emission point to a control device.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air pollutant emissions to the atmosphere by blocking an opening in a cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Container means a portable unit used to hold material. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as ''portable tanks'' or ''totes'', cargo tank trucks, and tank rail cars.

Continuous record means documentation of data values measured at least once every 15 minutes and recorded at the frequency specified in this subpart.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minutes or more frequent block averages.

Continuous seal means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

Control device means equipment used for recovering, removing, oxidizing, or destroying organic vapors. Examples of such equipment include but are not limited to carbon adsorbers, condensers, vapor incinerators, flares, boilers, and process heaters.

Cover means a device or system that provides a continuous barrier over the material managed in an off-site material management unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings needed for operation, inspection, sampling, maintenance, and repair of the unit provided that each opening is closed when not in use (e.g., access hatches, sampling ports). A cover may be a separate piece of equipment which can be detached and removed from the unit or a *cover* may be formed by structural features permanently integrated into the design of the unit.

Emission point means an individual tank, surface impoundment, container, oil-water or organic-water separator, transfer system, process vent, or enclosure.

Enclosure means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapor through a closed vent system to a control device.

External floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a tank with no fixed roof.

Fixed roof means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the liquid managed in the unit.

Flame zone means the portion of the combustion chamber in a boiler or process heater occupied by the flame envelope.

Floating roof means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the liquid being contained, and is equipped with a continuous seal.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow in a bypass line.

Hard-piping means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

Hazardous air pollutants or *HAP* means the specific organic chemical compounds, isomers, and mixtures listed in Table 1 of this subpart.

Hazardous waste means a waste that is determined to be hazardous under the Resource Conservation and Recovery Act (PL 94–580) (RCRA), as implemented by 40 CFR parts 260 and 261.

In gas/vapor service means that a piece of equipment in off-site material service contains or contacts a gas or vapor at operating conditions.

In heavy liquid service means that a piece of equipment in off-site material service is not in gas/vapor service or in light liquid service.

In light liquid service means that a piece of equipment in off-site material service contains or contacts a liquid that meets the following conditions:

(1) The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 °C;

(2) The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 °C is equal to or greater than 20 percent by weight of the total process stream; and

(3) The fluid is a liquid at operating conditions. Note to *In light liquid service:* Vapor pressures may be determined by the methods described in 40 CFR 60.485(e)(1).

In liquid service means that a piece of equipment in off-site material service is not in gas/vapor service.

Individual drain system means a stationary system used to convey wastewater streams or residuals to a waste management unit or to discharge or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer lines and other junction boxes (e.g., manholes, sumps, and lift stations) conveying wastewater streams or residuals. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (e.g., stormwater sewer system) and is segregated from all other individual drain systems.

Internal floating roof means a cover that rests or floats on the liquid surface (but not necessarily in complete contact with it inside a tank that has a fixed roof).

Light-material service means the container is used to manage an off-site material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the off-site material is greater than 0.3 kilopascals (kPa) at 20 °C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight.

Liquid-mounted seal means a foam- or liquid-filled continuous seal mounted in contact with the liquid in a unit.

Maximum HAP vapor pressure means the sum of the individual HAP equilibrium partial pressure exerted by an off-site material at the temperature equal to either: the local maximum monthly average temperature as reported by the National Weather Service when the off-site material is stored or treated at ambient temperature; or the highest calendar-month average temperature of the off-site material when the off-site material is stored at temperatures above the ambient temperature or when the off-site material is stored or treated at temperatures below the ambient temperature. For the purpose of this subpart, maximum HAP vapor pressure is determined using the procedures specified in § 63.694(j) of this subpart.

Metallic shoe seal means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.694(k) of this subpart.

Off-site material means a material that meets all of the criteria specified in paragraph § 63.680(b)(1) of this subpart but is not one of the materials specified in § 63.680(b)(2) of this subpart.

Off-site material management unit means a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to manage off-site material.

Off-site material service means any time when a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system contains or contacts off-site material.

Off-site material stream means an off-site material produced or generated by a particular process or source such that the composition and form of the material comprising the stream remain consistent. An off-site material stream may be delivered, transferred, or otherwise moved to the plant site in a continuous flow of material (e.g., wastewater flowing through a pipeline) or in a series of discrete batches of material (e.g., a truckload of drums all containing the same off-site material or multiple bulk truck loads of an off-site material produced by the same process).

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

Operating parameter value means a minimum or maximum value established for a control device or treatment process parameter which, if achieved by itself or in combination with one or

more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Plant site means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (e.g., a wastewater treatment unit or solvent recovery unit located at the site but is sold to a different company) is a different plant site.

Point-of-delivery means the point at the boundary or within the plant site where the owner or operator first accepts custody, takes possession, or assumes responsibility for the management of an off-site material stream managed in a waste management operation or recovery operation specified in § 63.680 (a)(2)(i) through (a)(2)(vi) of this subpart. The characteristics of an off-site material stream are determined prior to combining the off-site material stream with other off-site material streams or with any other materials.

Point-of-treatment means a point after the treated material exits the treatment process but before the first point downstream of the treatment process exit where the organic constituents in the treated material have the potential to volatilize and be released to the atmosphere. For the purpose of applying this definition to this subpart, the first point downstream of the treatment process exit is not a fugitive emission point due to an equipment leak from any of the following equipment components: Pumps, compressors, valves, connectors, instrumentation systems, or pressure relief devices.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device. This release can be one release or a series of releases over a short time period.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Process heater means an enclosed combustion device that transfers heat released by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means an open-ended pipe, stack, or duct through which a gas stream containing HAP is continuously or intermittently discharged to the atmosphere from any of the processes listed in § 63.680(c)(2)(i) through (vi). For the purpose of this subpart, a process vent is none of the following: a pressure relief device; an open-ended line or other vent that is subject to the equipment leak control requirements under § 63.691; or a stack or other vent that is used to exhaust combustion products from a boiler, furnace, process heater, incinerator, or other combustion device.

Recovery operation means the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery through the point where the material has been recycled, reprocessed, or re-refined to obtain the intended product or to remove the physical and chemical impurities of concern.

Separator means a waste management unit, generally a tank, used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include, but are not limited

to, an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

Single-seal system means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Transfer system means a stationary system for which the predominant function is to convey liquids or solid materials from one point to another point within a waste management operation or recovery operation. For the purpose of this subpart, the conveyance of material using a container (as defined for this subpart) or a self-propelled vehicle (e.g., a front-end loader) is not a transfer system. Examples of a transfer system include but are not limited to a pipeline, an individual drain system, a gravity-operated conveyor (such as a chute), and a mechanically-powered conveyor (such as a belt or screw conveyor).

Temperature monitoring device means a piece of equipment used to monitor temperature and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius (°C) or ±1.2 degrees °C, whichever value is greater.

Treatment process means a process in which an off-site material stream is physically, chemically, thermally, or biologically treated to destroy, degrade, or remove hazardous air pollutants contained in the off-site material. A treatment process can be composed of a single unit (e.g., a steam stripper) or a series of units (e.g., a wastewater treatment system). A treatment process can be used to treat one or more off-site material streams at the same time.

Used oil means any oil refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. This definition is the same definition of ''used oil'' in 40 CFR 279.1.

Used solvent means a mixture of aliphatic hydrocarbons or a mixture of one and two ring aromatic hydrocarbons that has been used as a solvent and as a result of such use is contaminated by physical or chemical impurities.

Vapor-mounted seal means a continuous seal that is mounted such that there is a vapor space between the liquid in the unit and the bottom of the seal.

Volatile organic hazardous air pollutant concentration or *VOHAP concentration* means the fraction by weight of those compounds listed in Table 1 of this subpart that are in an off-site material as measured using Method 305 in appendix A of this part and expressed in terms of parts per million (ppm). As an alternative to using Method 305, an owner or operator may determine the HAP concentration of an off-site material using any one of the other test methods specified in §63.694(b)(2)(ii) of this subpart. When a test method specified in §63.694(b)(2)(ii) of this subpart other than Method 305 is used to determine the speciated HAP concentration of an off-site material, the individual compound concentration may be adjusted by the corresponding f_{m305} value listed in Table 1 of this subpart to determine a VOHAP concentration.

Waste means a material generated from industrial, commercial, mining, or agricultural operations or from community activities that is discarded, discharged, or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded or discharged.

Waste management operation means the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery to the point where the waste exits or is

discharged from the plant site or the waste is placed for on-site disposal in a unit not subject to this subpart (e.g., a waste incinerator, a land disposal unit).

Waste stabilization process means any physical or chemical process used to either reduce the mobility of hazardous constituents in a waste or eliminate free liquids as determined by Test Method 9095—Paint Filter Liquids Test in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846, Third Edition, September 1986, as amended by Update I, November 15, 1992. (As an alternative, an owner or operator may use any more recent, updated version of Method 9095 approved by the EPA.) A waste stabilization process includes mixing the waste with binders or other materials and curing the resulting waste and binder mixture. Other synonymous terms used to refer to this process are ''waste fixation'' or ''waste solidification.'' A waste stabilization process does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38964, July 20, 1999; 80 FR 14272, Mar. 18, 2015]

§ 63.682 [Reserved]

§ 63.683 Standards: General.

(a) The general standards under this section apply to owners and operators of affected sources as designated in § 63.680(c) of this subpart.

(b) *Off-site material management units.* (1) For each off-site material management unit that is part of an affected source, the owner or operator must meet the requirements in either paragraph (b)(1)(i), (b)(1)(ii), or (b)(1)(iii) of this section except for those off-site material management units exempted under paragraph (b)(2) of this section.

(i) The owner or operator controls air emissions from the off-site material management unit in accordance with the applicable standards specified in §§ 63.685 through 63.689 of this subpart.

(ii) The owner or operator removes or destroys HAP in the off-site material before placing the material in the off-site material management unit by treating the material in accordance with the standards specified in § 63.684 of this subpart.

(iii) The owner or operator determines before placing off-site material in the off-site material management unit that the average VOHAP concentration of the off-site material is less than 500 parts per million by weight (ppmw) at the point-of-delivery. The owner or operator must perform an initial determination of the average VOHAP concentration of the off-site material using the procedures specified in § 63.694(b) of this subpart. This initial determination must be performed either before the first time any portion of the off-site material stream is placed in the unit or by the compliance date, whichever date is later. Thereafter, the owner or operator must review and update, as necessary, this determination at least once every calendar year following the date of the initial determination for the off-site material stream.

(2) An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section when the owner or operator meets one of the exemptions provided in paragraphs (b)(2)(i) through (b)(2)(iv) of this section as applicable to the unit.

(i) An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section if the off-site material management unit is also subject to another subpart under 40 CFR part 63 or 40 CFR part 61, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the unit in compliance with the provisions specified in the other applicable subpart under part 61 or part 63.

(ii) At the discretion of the owner or operator, one or a combination of off-site material management units may be exempted from the requirements in paragraph (b)(1) of this section when these units meet the condition that the total annual quantity of HAP contained in the off-site material placed in the units exempted under this paragraph (b)(2)(ii) is less than 1 megagram per year. For the off-site material management units selected by the owner or operator to be exempted from

the requirements in paragraph (b)(1) of this section, the owner or operator must meet the requirements in paragraphs (b)(2)(ii)(A) and (b)(2)(ii)(B) of this section. An owner or operator may change the off-site material management units selected to be exempted under this paragraph (b)(2)(ii) by preparing a new designation for the exempt-units as required by paragraph (b)(2)(ii)(A) of this section and performing a new determination as required by paragraph (b)(2)(ii)(B) of this section.

(A) The owner or operator must designate each of the off-site material management units selected by the owner or operator to be exempt under paragraph (b)(2)(ii) of this section by either submitting to the Administrator a written notification identifying the exempt-units or permanently marking the exempt-units at the plant site. If an owner or operator chooses to prepare and submit a written notification, this notification must include a site plan, process diagram, or other appropriate documentation identifying each of the exempt-units. If an owner or operator chooses to permanently mark the exempt-units, each exempt-unit must be marked in such a manner that it can be readily identified as an exempt-unit from the other off-site material management units located at the plant site.

(B) The owner or operator must prepare an initial determination of the total annual HAP quantity in the off-site material placed in the units exempted under this paragraph (b)(2)(ii). This determination is based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point where the off-site material is placed in each exempted unit. The owner or operator must perform a new determination whenever the extent of changes to the quantity or composition of the off-site material placed in the exempted units could cause the total annual HAP content in the off-site material to exceed 1 megagram per year. The owner or operator must maintain documentation to support the most recent determination of the total annual HAP quantity. This documentation must include the basis and data used for determining the HAP content of the off-site material.

(iii) A tank or surface impoundment is exempted from the requirements in paragraph (b)(1) of this section if the unit is used for a biological treatment process that meets the requirements in either paragraph (b)(2)(iii)(A) or (b)(2)(iii)(B) of this section and the owner or operator complies with the monitoring requirements in § 63.684(e)(4) of this subpart.

(A) The HAP biodegradation efficiency (R_{bio}) for the biological treatment process is equal to or greater than 95 percent. The HAP biodegradation efficiency (R_{bio}) shall be determined in accordance with the requirements of § 63.694(h) of this subpart.

(B) The total actual HAP mass removal rate (MR_{bio}) for the off-site material treated by the biological treatment process is equal to or greater than the required HAP mass removal rate (RMR) for the off-site material. The total actual HAP mass removal rate (MR_{bio}) must be determined in accordance with the requirements of § 63.694(i) of this subpart. The required HAP mass removal rate (RMR) must be determined in accordance with the requirements of § 63.694(e) of this subpart.

(iv) An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section if the off-site material placed in the unit is a hazardous waste that meets the conditions specified in either paragraph (b)(2)(iv)(A) or (b)(2)(iv)(B) of this section.

(A) The hazardous waste meets the numerical organic concentration limits, applicable to the hazardous waste, as specified in 40 CFR part 268—Land Disposal Restrictions, listed in the table, ''Treatment Standards for Hazardous Waste'' in 40 CFR 268.40.

(B) The organic hazardous constituents in the hazardous waste have been treated by the treatment technology established by the EPA for the hazardous waste in 40 CFR 268.42(a), or have been removed or destroyed by an equivalent method of treatment approved by the EPA under 40 CFR 268.42(b).

(v) A tank used for bulk feed of off-site material to a waste incinerator is

exempted from the requirements specified in paragraph (b)(1) of this section if the tank meets all of the conditions specified in paragraphs (b)(2)(v)(A) through (b)(2)(v)(C) of this section.

(A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR part 61, subpart FF—National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;

(B) The enclosure and control device serving the tank were installed and began operation prior to July 1, 1996; and

(C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator must annually perform the verification procedure for the enclosure as specified in Section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure.''

(c) *Process vents.* (1) For each process vent that is part of an affected source, the owner or operator must meet the requirements in either paragraph (c)(1)(i) or (c)(1)(ii) of this section except for those process vents exempted under paragraph (c)(2) of this section.

(i) The owner or operator controls air emissions from the process vent in accordance with the standards specified in § 63.690 of this subpart.

(ii) The owner or operator determines before placing off-site material in the process equipment associated with the process vent that the average VOHAP concentration of the off-site material is less than 500 ppmw at the point-of-delivery. The owner or operator must perform an initial determination of the average VOHAP concentration of the off-site material using the procedures specified in § 63.694(b) of this subpart before any portion of the off-site material stream is placed in the unit. Thereafter, the owner or operator must review and update, as necessary, this determination at least once every calendar year following the date of the initial determination for the off-site material stream.

(2) A process vent is exempted from the requirements of paragraph (c)(1) of this section when the owner or operator meets one of the exemptions provided in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

(i) A process vent is exempted from the requirements in paragraph (c)(1) of this section if the process vent is also subject to another subpart under part 63 or 40 CFR part 61, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the process vent in compliance with the provisions specified in the other applicable subpart under part 61 or part 63.

(ii) A process vent is exempted from the requirements specified in paragraph (c)(1) of this section if the owner or operator determines that the process vent stream flow rate is less than 0.005 cubic meters per minute (m^3/min) at standard conditions (as defined in 40 CFR 63.2). The process vent stream flow rate shall be determined in accordance with the procedures specified in § 63.694(m) of this subpart. Documentation must be prepared by the owner or operator and maintained at the plant site to support the determination of the process vent stream flow rate. This documentation must include identification of each process vent exempted under this paragraph and the test results used to determine the process vent stream flow rate.

(iii) A process vent is exempted from the requirements specified in paragraph (c)(1) of this section if the owner or operator determines that the process vent stream flow rate is less than 6.0 m^3/min at standard conditions (as defined in 40 CFR 63.2) and the total HAP concentration is less than 20 ppmv. The process vent stream flow rate and total HAP concentration shall be determined in accordance with the procedures specified in § 63.694(m) of this subpart. Documentation must be

prepared by the owner or operator and maintained at the plant site to support the determination of the process vent stream flow rate and total HAP concentration. This documentation must include identification of each process vent exempted under this paragraph (c)(2)(iii) and the test results used to determine the process vent stream flow rate and total HAP concentration. The owner or operator must perform a new determination of the process vent stream flow rate and total HAP concentration when the extent of changes to operation of the unit on which the process vent is used could cause either the process vent stream flow rate to exceed the limit of 6.0 m^3/min or the total HAP concentration to exceed the limit of 20 ppmv.

(d) *Equipment leaks.* The owner or operator must control equipment leaks from each equipment component that is part of the affected source specified in § 63.680(c)(3) of this subpart by implementing leak detection and control measures in accordance with the standards specified in § 63.691 of this subpart.

(e) *General duty.* At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(f) In addition to the cases listed in § 63.695(e)(4), deviation means any of the cases listed in paragraphs (f)(1) through (6) of this section.

(1) Any instance in which an affected source subject to this subpart, or an owner or operator of such a source, fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emission limit, operating limit or work practice standard.

(2) When a performance test indicates that emissions of a pollutant in Table 1 to this subpart are exceeding the emission standard for the pollutant specified in Table 1 to this subpart.

(3) When the average value of a monitored operating parameter, based on the data averaging period for compliance specified in § 63.695, does not meet the operating limit specified in § 63.693.

(4) When an affected source discharges directly into the atmosphere from any of the sources specified in paragraphs (f)(4)(i) and (ii) of this section.

(i) A pressure relief device, as defined in § 63.681.

(ii) A bypass, as defined in § 63.681.

(5) Any instance in which the affected source subject to this subpart, or an owner or operator of such a source, fails to meet any term or condition specified in paragraph (f)(5)(i) or (ii) of this section.

(i) Any term or condition that is adopted to implement an applicable requirement in this subpart.

(ii) Any term or condition relating to compliance with this subpart that is included in the operating permit for an affected source to obtain such a permit.

(6) Any failure to collect required data, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments).

[64 FR 38965, July 20, 1999, as amended at 80 FR 14272, Mar. 18, 2015]

§ 63.684 Standards: Off-site material treatment.

(a) The provisions of this section apply to the treatment of off-site material to remove or destroy HAP for which § 63.683(b)(1)(ii) of this subpart references the requirements of this section for such treatment.

(b) The owner or operator shall remove or destroy the HAP contained in

off-site material streams to be managed in the off-site material management unit in accordance with § 63.683(b)(1)(ii) of this subpart using a treatment process that continuously achieves, under normal operations, one or more of the performance levels specified in paragraphs (b)(1) through (b)(5) of this section (as applicable to the type of treatment process) for the range of off-site material stream compositions and quantities expected to be treated.

(1) *VOHAP concentration.* The treatment process shall reduce the VOHAP concentration of the off-site material using a means, other than by dilution, to achieve one of the following performance levels, as applicable:

(i) In the case when every off-site material stream entering the treatment process has an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery, then the VOHAP concentration of the off-site material shall be reduced to a level that is less than 500 ppmw at the point-of-treatment.

(ii) In the case when off-site material streams entering the treatment process are a mixture of off-site material streams having an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery with off-site material streams having average VOHAP concentrations less than 500 ppmw at the point-of-delivery, then the VOHAP concentration of the off-site material must be reduced to a level at the point-of-treatment that meets the performance level specified in either paragraph (b)(1)(ii)(A) or (B) of this section.

(A) Less than the VOHAP concentration limit (C_R) established for the treatment process using the procedure specified in § 63.694(d); or

(B) Less than the lowest VOHAP concentration determined for each of the off-site material streams entering the treatment process as determined by the VOHAP concentration of the off-site material at the point-of-delivery.

(2) *HAP mass removal.* The treatment process shall achieve a performance level such that the total quantity of HAP actually removed from the off-site material stream (MR) is equal to or greater than the required mass removal (RMR) established for the off-site material stream using the procedure specified in § 63.694(e) of this subpart. The MR for the off-site material streams shall be determined using the procedures specified in § 63.694(f) of this subpart.

(3) *HAP reduction efficiency.* For any treatment process except a treatment process that uses biological degradation and is performed in an open tank or surface impoundment, the treatment process must achieve the applicable performance level specified in either paragraph (b)(3)(i) or (b)(3)(ii) of this section.

(i) In the case when the owner or operator determines that off-site material stream entering the treatment process has an average VOHAP concentration less than 10,000 ppmw at the point-of-delivery, then the treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced by 95 percent or more. The HAP reduction efficiency (R) for the treatment process shall be determined using the procedure specified in § 63.694(g) of this subpart. The average VOHAP concentration of the off-site material stream at the point-of-delivery shall be determined using the procedure specified in § 63.694(b) of this subpart.

(ii) In the case when the off-site material stream entering the treatment process has an average VOHAP concentration equal to or greater than 10,000 ppmw at the point-of-delivery, then the treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced by 95 percent or more, and the average VOHAP concentration of the off-site material at the point-of-treatment is less than 100 parts per million by weight (ppmw). The HAP reduction efficiency (R) for the treatment process shall be determined using the procedure specified in § 63.694(g) of this subpart. The average VOHAP concentration of the off-site material stream at the point-of-treatment shall be determined using the procedure specified in § 63.694(c) of this subpart.

(4) *Biological degradation performed in an open tank or surface impoundment.* A

treatment process using biological degradation and performed in an open tank or surface impoundment must achieve the performance level specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The HAP reduction efficiency (R) for the treatment process is equal to or greater than 95 percent, and the HAP biodegradation efficiency (R_{bio}) for the treatment process is equal to or greater than 95 percent. The HAP reduction efficiency (R) shall be determined using the procedure specified in § 63.694(g) of this subpart. The HAP biodegradation efficiency (R_{bio}) shall be determined in accordance with the requirements of § 63.694(h) of this subpart.

(ii) The total quantity of HAP actually removed from the off-site material stream by biological degradation (MR_{bio}) shall be equal to or greater than the required mass removal (RMR) established for the off-site material stream using the procedure specified in § 63.694(e) of this subpart. The MR_{bio} of the off-site material stream shall be determined using the procedures specified in § 63.694(i) of this subpart.

(5) *Incineration.* The treatment process must destroy the HAP contained in the off-site material stream using one of the combustion devices specified in paragraphs (b)(5)(i) through (v) of this section.

(i) An incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270, and the incinerator is designed and operated in accordance with the requirements of 40 CFR part 264, subpart O—Incinerators, or

(ii) An incinerator for which the owner or operator has certified compliance with the interim status requirements of 40 CFR part 265, subpart O—Incinerators.

(iii) A boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270, and the combustion unit is designed and operated in accordance with the requirements of 40 CFR part 266, subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces.

(iv) A boiler or industrial furnace for which the owner or operator has certified compliance with the interim status requirements of 40 CFR part 266, subpart H Hazardous Waste Burned in Boilers and Industrial Furnaces.

(v) An incinerator, boiler, or industrial furnace for which the owner or operator has submitted a Notification of Compliance under §§ 63.1207(j) and 63.1210(d) and complies with the requirements of subpart EEE of this part at all times (including times when nonhazardous waste is being burned).

(c) For a treatment process that removes the HAP from the off-site material by a means other than thermal destruction or biological degradation to achieve one of the performances levels specified in paragraph (b)(1), (b)(2), or (b)(3) of this section, the owner or operator shall manage the HAP removed from the off-site material in such a manner to minimize release of these HAP to the atmosphere, to the extent practical. Examples of HAP emission control measures that meet the requirements of this paragraph include managing the HAP removed from the off-site material in units that use air emission controls in accordance with the standards specified in §§ 63.685 through 63.689 of this subpart, as applicable to the unit.

(d) When the owner or operator treats the off-site material to meet one of the performance levels specified in paragraphs (b)(1) through (b)(4) of this section, the owner or operator shall demonstrate that the treatment process achieves the selected performance level for the range of expected off-site material stream compositions expected to be treated. An initial demonstration shall be performed as soon as possible but no later than 30 days after first time an owner or operator begins using the treatment process to manage off-site material streams in accordance with the requirements of either § 63.683(b)(1)(ii) or § 63.683(b)(2)(ii) of this subpart as applicable to the affected off-site material management unit or process equipment. Thereafter, the owner or operator shall review and update, as necessary, this demonstration at least once every calendar year following the date of the initial demonstration.

(e) When the owner or operator treats the off-site material to meet one of the

performance levels specified in paragraphs (b)(1) through (b)(4) of this section, the owner or operator shall ensure that the treatment process is achieving the applicable performance requirements by continuously monitoring the operation of the process when it is used to treat off-site material by complying with paragraphs (e)(1) through (e)(3) or, for biological treatment units, paragraph (e)(4) of this section:

(1) A continuous monitoring system shall be installed and operated for each treatment that measures operating parameters appropriate for the treatment process technology. This system shall include a continuous recorder that records the measured values of the selected operating parameters. The monitoring equipment shall be installed, calibrated, and maintained in accordance with the equipment manufacturer's specifications. The continuous recorder shall be a data recording device that is capable of recording either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less.

(2) For each monitored operating parameter, the owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the treatment process must be operated to continuously achieve the applicable performance requirements of this section.

(3) When the treatment process is operating to treat off-site material, the owner or operator shall inspect the data recorded by the continuous monitoring system on a routine basis and operate the treatment process such that the actual value of each monitored operating parameter is greater than the minimum operating parameter value or less than the maximum operating parameter value, as appropriate, established for the treatment process.

(4) When the treatment process is a biological treatment process that is complying with paragraph (b)(4) of this section, the owner or operator must establish and implement a written procedure to monitor the appropriate parameters that demonstrate proper operation of the biological treatment unit in accordance with the evaluation required in § 63.694(h) of this subpart. The written procedure must list the operating parameters that will be monitored and state the frequency of monitoring to ensure that the biological treatment unit is operating between the minimum operating parameter values and maximum operating parameter values to establish that the biological treatment unit is continuously achieving the performance requirement.

(f) The owner or operator must maintain records for each treatment process in accordance with the requirements of § 63.696(a) of this subpart.

(g) The owner or operator must prepare and submit reports for each treatment process in accordance with the requirements of § 63.697(a) of this subpart.

(h) The Administrator may at any time conduct or require that the owner or operator conduct testing necessary to demonstrate that a treatment process is achieving the applicable performance requirements of this section. The testing shall be conducted in accordance with the applicable requirements of this section. The Administrator may elect to have an authorized representative observe testing conducted by the owner or operator.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38967, July 20, 1999; 66 FR 1266, Jan. 8, 2001; 68 FR 37351, June 23, 2003; 80 FR 14273, Mar. 18, 2015]

§ 63.685 Standards: Tanks.

(a) The provisions of this section apply to the control of air emissions from tanks for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) According to the date an affected source commenced construction or reconstruction and the date an affected source receives off-site material for the first time as established in § 63.680(e)(i) through (iii), the owner or operator shall control air emissions from each tank subject to this section in accordance with either paragraph (b)(1)(i) or (ii) of this section.

(1)(i) For a tank that is part of an existing affected source but the tank is not used for a waste stabilization process as defined in § 63.681, the owner or

operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 3 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 3 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 3 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(ii) For a tank that is part of an existing affected source but the tank is not used for a waste stabilization process as defined in §63.681, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 4 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 4 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 4 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(2) For a tank that is part of a new affected source but the tank is not used for a waste stabilization process as defined in §63.681, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 5 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 5 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 5 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(3) For a tank that is used for a waste stabilization process, the owner or operator shall control air emissions from the tank by using Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(c) Owners and operators controlling air emissions from a tank using Tank Level 1 controls shall meet the following requirements:

(1) The owner or operator shall determine the maximum HAP vapor pressure for an off-site material to be managed in the tank using Tank Level 1 controls before the first time the off-site material is placed in the tank. The maximum HAP vapor pressure shall be determined using the procedures specified in §63.694(j). Thereafter, the owner or operator shall perform a new determination whenever changes to the off-site material managed in the tank could potentially cause the maximum HAP vapor pressure to increase to a level that is equal to or greater than the maximum HAP vapor pressure limit for the tank design capacity category specified in Table 3, Table 4, or Table 5 of this subpart, as applicable to the tank.

(2) The owner or operator must control air emissions from the tank in accordance with the requirements in either paragraph (c)(2)(i), (c)(2)(ii), or (c)(2)(iii) of this section, as applicable to the tank.

(i) The owner or operator controls air emissions from the tank in accordance with the provisions specified in subpart OO of this part—National Emission Standards for Tanks—Level 1, except that §63.902(c)(2) and (3) shall not apply for the purposes of this subpart.

(ii) As an alternative to meeting the requirements in paragraph (c)(2)(i) of this section, an owner or operator may control air emissions from the tank in accordance with the provisions for Tank Level 2 controls as specified in paragraph (d) of this section.

(iii) As an alternative to meeting the requirements in paragraph (c)(2)(i) of this section when a tank is used as an interim transfer point to transfer off-site material from containers to another off-site material management unit, an owner or operator may control

air emissions from the tank in accordance with the requirements in paragraphs (c)(2)(iii)(A) and (c)(2)(iii)(B) of this section. An example of such a tank is an in-ground tank into which organic-contaminated debris is dumped from roll-off boxes or dump trucks, and then this debris is promptly transferred from the tank to a macroencapsulation unit by a backhoe.

(A) During those periods of time when the material transfer activity is occurring, the tank may be operated without a cover.

(B) At all other times, air emissions from the tank must be controlled in accordance with the provisions specified in subpart OO of this part—National Emission Standards for Tanks—Level 1, with the exceptions specified in paragraphs (c)(2)(iii)(B)(*1*) and (*2*) of this section.

(*1*) Where § 63.902(c)(2) provides an exception for a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere, only a conservation vent shall be eligible for the exception for the purposes of this subpart.

(*2*) Section 63.902(c)(3) shall not apply for the purposes of this subpart.

(d) Owners and operators controlling air emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in paragraph (e) of this section;

(2) A tank equipped with an external floating roof in accordance with the requirements specified in paragraph (f) of this section;

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in paragraph (g) of this section;

(4) A pressure tank designed and operated in accordance with the requirements specified in paragraph (h) of this section; or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in paragraph (i) of this section.

(e) The owner or operator who elects to control air emissions from a tank using a fixed-roof with an internal floating roof shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in § 63.681 of this subpart; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed (i.e., no visible gaps). Rim spaces vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified in § 63.695(b) of this subpart.

(f) The owner or operator who elects to control tank emissions by using an external floating roof shall meet the requirements specified in paragraphs (f)(1) through (f)(3) of this section.

(1) The owner or operator shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in § 63.681 of this subpart. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters (cm2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters (24 inches) above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters (cm^2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(iii) The external floating roof shall be meet the following specifications:

(A) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float wells shall be equipped with covers designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vents shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well must be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified in § 63.695(b) of this subpart.

(g) The owner or operator who controls tank air emissions by venting to a control device shall meet the requirements specified in paragraphs (g)(1) through (g)(3) of this section.

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693 of this subpart.

(2) Whenever an off-site material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except that venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample

liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(ii) To remove accumulated sludge or other residues from the bottom of the tank.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in §63.695 of this subpart.

(h) The owner or operator who elects to control tank air emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in §63.694(k) of this subpart.

(3) Whenever an off-site material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except at those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of §63.693.

(i) The owner or operator who elects to control air emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in paragraphs (i)(1) through (3) of this section.

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in §63.693 of this subpart.

(3) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in §63.693.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38968, July 20, 1999; 66 FR 1266, Jan. 8, 2001; 80 FR 14273, Mar. 18, 2015]

§63.686 Standards: Oil-water and organic-water separators.

(a) The provisions of this section apply to the control of air emissions from oil-water separators and organic-water separators for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each separator subject to this section by using one of the following:

(1) A floating roof in accordance with all applicable provisions specified in subpart VV of this part—National Emission Standards for Oil-Water Separators and Organic-Water Separators, except that §§63.1043(c)(2), 63.1044(c)(2), and 63.1045(b)(3)(i) shall not apply for the purposes of this subpart. For portions of the separator where it is infeasible to install and operate a floating roof, such as over a weir mechanism, the owner or operator shall comply with the requirements specified in paragraph (b)(2) of this section.

(2) A fixed-roof that is vented through a closed-vent system to a control device in accordance with all applicable provisions specified in subpart VV of this part—National Emission

Standards for Oil-Water Separators and Organic-Water Separators, except that §§ 63.1043(c)(2), 63.1044(c)(2), and 63.1045(b)(3)(i) shall not apply for the purposes of this subpart.

(3) A pressurized separator that operates as a closed system in accordance with all applicable provisions specified in subpart VV of this part—National Emission Standards for Oil-Water Separators and Organic-Water Separators, except that §§ 63.1043(c)(2), 63.1044(c)(2), and 63.1045(b)(3)(i) shall not apply for the purposes of this subpart.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38969, July 20, 1999; 80 FR 14274, Mar. 18, 2015]

§ 63.687 Standards: Surface impoundments.

(a) The provisions of this section apply to the control of air emissions from surface impoundments for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each surface impoundment subject to this section by using one of the following:

(1) A floating membrane cover in accordance with the applicable provisions specified in subpart QQ of this part—National Emission Standards for Surface Impoundments, except that §§ 63.942(c)(2) and (3) and 63.943(c)(2) shall not apply for the purposes of this subpart; or

(2) A cover that is vented through a closed-vent system to a control device in accordance with all applicable provisions specified in subpart QQ of this part—National Emission Standards for Surface Impoundments, except that §§ 63.942(c)(2) and (3) and 63.943(c)(2) shall not apply for the purposes of this subpart.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38969, July 20, 1999; 80 FR 14274, Mar. 18, 2015]

§ 63.688 Standards: Containers.

(a) The provisions of this section apply to the control of air emissions from containers for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each container subject to this section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in paragraph (c) of this section apply to the container.

(1) For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator controls air emissions from the container in accordance with the standards for Container Level 1 controls as specified in subpart PP of this part—National Emission Standards for Containers, except that §§ 63.922(d)(4) and (5) and 63.923(d)(4) and (5) shall not apply for the purposes of this subpart.

(ii) As an alternative to meeting the requirements in paragraph (b)(1)(i) of this section, an owner or operator may choose to control air emissions from the container in accordance with the standards for either Container Level 2 controls or Container Level 3 controls as specified in subpart PP of this part—National Emission Standards for Containers, except that §§ 63.922(d)(4) and (5) and 63.923(d)(4) and (5) shall not apply for the purposes of this subpart.

(2) For a container having a design capacity greater than 0.46 m^3 and the container is not in light-material service as defined in § 63.681 of this subpart, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(3) For a container having a design capacity greater than 0.46 m^3 and the container is in light-material service as defined in § 63.681 of this subpart, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(3)(i) or (b)(3)(ii) of this section.

(i) The owner or operator controls air emissions from the container in accordance with the standards for Container Level 2 controls as specified in

subpart PP of this part—National Emission Standards for Containers, except that §§ 63.922(d)(4) and (5) and 63.923(d)(4) and (5) shall not apply for the purposes of this subpart.

(ii) As an alternative to meeting the requirements in paragraph (b)(3)(i) of this section, an owner or operator may choose to control air emissions from the container in accordance with the standards for Container Level 3 controls as specified in 40 CFR part 63, subpart PP—National Emission Standards for Containers.

(c) When a container subject to this subpart and having a design capacity greater than 0.1 m^3 is used for treatment of an off-site material by a waste stabilization process as defined in § 63.681 of this subpart, the owner or operator shall control air emissions from the container at those times during the process when the off-site material in the container is exposed to the atmosphere in accordance with the standards for Container Level 3 controls as specified in 40 CFR part 63, subpart PP—National Emission Standards for Containers.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38969, July 20, 1999; 80 FR 14274, Mar. 18, 2015]

§ 63.689 Standards: Transfer systems.

(a) The provisions of this section apply to the control of air emissions from transfer systems for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) For each transfer system that is subject to this section and is an individual drain system, the owner or operator shall control air emissions in accordance with the standards specified in 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems.

(c) For each transfer system that is subject to this section but is not an individual drain system, the owner or operator shall control air emissions by using one of the transfer systems specified in paragraphs (c)(1) through (c)(3) of this section.

(1) A transfer system that uses covers in accordance with the requirements specified in paragraph (d) of this section.

(2) A transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(3) A transfer system that is enclosed and vented through a closed-vent system to a control device in accordance with the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section.

(i) The transfer system is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed-vent system and control device are designed and operated in accordance with the requirements of § 63.693 of this subpart.

(d) Owners and operators controlling air emissions from a transfer system using covers in accordance with the provisions of paragraph (c)(1) of this section shall meet the requirements specified in paragraphs (d)(1) through (d)(6) of this section.

(1) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the off-site material as it is conveyed by the transfer system except for the openings at the inlet and outlet to the transfer system through which the off-site material passes. The inlet and outlet openings used for passage of the off-site material through the transfer system shall be the minimum size required for practical operation of the transfer system.

(2) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section joints or between the interface of the cover edge and its mounting.

(3) Except for the inlet and outlet openings to the transfer system through which the off-site material passes, each opening in the cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the

closure device or between the perimeter of the opening and the closure device.

(4) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the material or its vapors conveyed in the transfer system; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the transfer system on which the cover is installed.

(5) Whenever an off-site material is in the transfer system, the cover shall be installed with each closure device secured in the closed position, except the opening of closure devices or removal of the cover is allowed to provide access to the transfer system for performing routine inspection, maintenance, repair, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a hatch or remove the cover to repair conveyance equipment mounted under the cover or to clear a blockage of material inside the system. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable.

(6) The owner or operator shall inspect the air emission control equipment in accordance with the requirements specified in §63.695 of this subpart.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38970, July 20, 1999; 80 FR 14275, Mar. 18, 2015]

§63.690 Standards: Process vents.

(a) The provisions of this section apply to the control of air emissions from process vents for which §63.683(c)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator must route the vent stream from each affected process vent through a closed-vent system to a control device that meets the standards specified in §63.693 of this subpart. For the purpose of complying with this paragraph (b), a primary condenser is not a control device; however, a second condenser or other organic recovery device that is operated downstream of the primary condenser is considered a control device.

[64 FR 38970, July 20, 1999]

§63.691 Standards: Equipment leaks.

(a) The provisions of this section apply to the control of air emissions from equipment leaks for which §63.683(d) references the use of this section for such air emissions control.

(b) According to the date an affected source commenced construction or reconstruction and the date an affected source receives off-site material for the first time, as established in §63.680(e)(i) through (iii), the owner or operator shall control the HAP emitted from equipment leaks in accordance with the applicable provisions specified in either paragraph (b)(1) or (2) of this section.

(1)(i) The owner or operator controls the HAP emitted from equipment leaks in accordance with §§61.241 through 61.247 in 40 CFR part 61, subpart V—National Emission Standards for Equipment Leaks, with the difference noted in paragraphs (b)(1)(iii) and (iv) of this section for the purposes of this subpart; or

(ii) The owner or operator controls the HAP emitted from equipment leaks in accordance with §§63.161 through 63.182 in subpart H of this part—National Emission Standards for Organic Hazardous Air Pollutants from Equipment Leaks, with the differences noted in paragraphs (b)(2)(i) through (iv) of this section for the purposes of this subpart.

(iii) On or after March 18, 2015, for the purpose of complying with the requirements of 40 CFR 61.242–6(a)(2) or the requirements of §63.167(a)(2), the open end is sealed when instrument monitoring of the open-ended valve or line conducted according to Method 21 of 40 CFR part 60, appendix A indicates no readings of 500 ppm or greater.

(iv) On or after March 18, 2015, for the purpose of complying with the requirements of 40 CFR 61.242–6(d) or the requirements of §63.167(d), open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset and that are exempt from the requirements in 40 CFR 61.242–6(a), (b), and (c) or §63.167(a), (b), and (c) must comply with the requirements in §63.693(c)(2).

(2) The owner or operator controls the HAP emitted from equipment leaks in accordance with §§63.161 through 63.183 in subpart H of this part—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, with the differences noted in paragraphs (b)(2)(i) through (v) of this section for the purposes of this subpart.

(i) For each valve in gas/vapor or in light liquid service, as defined in §63.681, that is part of an affected source under this subpart, an instrument reading that defines a leak is 500 ppm or greater as detected by Method 21 of 40 CFR part 60, appendix A.

(ii) For each pump in light liquid service, as defined in §63.681, that is part of an affected source under this subpart, an instrument reading that defines a leak is 1,000 ppm or greater as detected by Method 21 of 40 CFR part 60, appendix A. Repair is not required unless an instrument reading of 2,000 ppm or greater is detected.

(iii) On or after March 18, 2015, for the purpose of complying with the requirements of §63.167(a)(2), the open end is sealed when instrument monitoring of the open-ended valve or line conducted according to Method 21 of 40 CFR part 60, appendix A indicates no readings of 500 ppm or greater.

(iv) On or after March 18, 2015, for the purpose of complying with the requirements of §63.167(d), open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset and that are exempt from the requirements in §63.167(a), (b), and (c) must comply with the requirements in §63.693(c)(2).

(v) For the purposes of this subpart, the pressure relief device requirements of §63.691(c) of this subpart rather than those of §63.165 or of 40 CFR 61.242–4, as applicable, shall apply. The pressure relief device requirements of §63.691(c)(3) and (4) apply in addition to the requirements of §63.169 or of 40 CFR 61.242–8, as applicable, for pressure relief devices in liquid service.

(c) *Requirements for pressure relief devices.* Except as provided in paragraph (c)(4) of this section, the owner or operator must comply with the requirements specified in paragraphs (c)(1) through (3) of this section for pressure relief devices in off-site material service.

(1) *Operating requirements.* Except during a pressure release event, operate each pressure relief device in gas/vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 CFR part 60, appendix A.

(2) *Pressure release requirements.* For pressure relief devices in gas/vapor service, the owner or operator must comply with either paragraph (c)(2)(i) or (ii) of this section following a pressure release, as applicable.

(i) If the pressure relief device does not consist of or include a rupture disk, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 ppm above background, as detected by Method 21 of 40 CFR part 60, appendix A, no later than 5 calendar days after the pressure release device returns to off-site material service following a pressure release, except as provided in §63.171.

(ii) If the pressure relief device consists of or includes a rupture disk, except as provided in §63.171, install a replacement disk as soon as practicable but no later than 5 calendar days after the pressure release.

(3) *Pressure release management.* Except as provided in paragraph (c)(4) of this section, emissions of HAP listed in Table 1 of this subpart may not be discharged directly to the atmosphere from pressure relief devices in off-site material service, and according to the date an affected source commenced construction or reconstruction and the date an affected source receives off-site material for the first time, as established in §63.680(e)(1)(i) through (iii), the owner or operator must comply

with the requirements specified in paragraphs (c)(3)(i) and (ii) of this section for all pressure relief devices in off-site material service, except that containers are not subject to the obligations in paragraph (c)(3)(i) of this section.

(i) The owner or operator must equip each pressure relief device in off-site material service with a device(s) or use a monitoring system. The device or monitoring system may be either specific to the pressure release device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices or monitoring systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, pressure monitor, or parametric monitoring system. The devices or monitoring systems must be capable of meeting the requirements specified in paragraphs (c)(3)(i)(A) through (C) of this section.

(A) Identifying the pressure release;

(B) Recording the time and duration of each pressure release; and

(C) Notifying operators immediately that a pressure release is occurring.

(ii) If any pressure relief device in off-site material service releases directly to the atmosphere as a result of a pressure release event, the owner or operator must calculate the quantity of HAP listed in Table 1 of this subpart released during each pressure release event and report this quantity as required in §63.697(b)(5). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge. For containers, the calculations may be based on process knowledge and information alone.

(4) *Pressure relief devices routed to a drain system, fuel gas system, process or control device.* If a pressure relief device in off-site material service is designed and operated to route all pressure releases through a closed vent system to a drain system, fuel gas system, process or control device, paragraphs (c)(1), (2), and (3) of this section do not apply. The fuel gas system or closed vent system and the process or control device (if applicable) must meet the requirements of §63.693. The drain system (if applicable) must meet the requirements of §63.689.

[64 FR 38970, July 20, 1999, as amended at 66 FR 1266, Jan. 8, 2001; 80 FR 14275, Mar. 18, 2015; 83 FR 3992, Jan. 29, 2018]

§63.692 [Reserved]

§63.693 Standards: Closed-vent systems and control devices.

(a) The provisions of this section apply to closed-vent systems and control devices used to control air emissions for which another standard references the use of this section for such air emission control.

(b) For each closed-vent system and control device used to comply with this section, the owner or operator shall meet the following requirements:

(1) The owner or operator must use a closed-vent system that meets the requirements specified in paragraph (c) of this section.

(2) The owner or operator must use a control device that meets the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section.

(3) Whenever gases or vapors containing HAP are routed from a tank through a closed-vent system connected to a control device used to comply with the requirements of §63.685(b)(1), (2), or (3), the control device must be operating except as provided for in paragraphs (b)(3)(i) and (ii) of this section.

(i) The control device may only be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that tank emissions are vented to the control device.

(ii) On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance shall not exceed 240 hours per each calendar year.

(4) The owner or operator must inspect and monitor each closed-vent

system in accordance with the requirements specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The owner or operator inspects and monitors the closed-vent system in accordance with the requirements specified in § 63.695(c) of this subpart, and complies with the applicable recordkeeping requirements in § 63.696 of this subpart and the applicable reporting requirements in § 63.697 of this subpart.

(ii) As an alternative to meeting the requirements specified in paragraph (b)(4)(i) of this section, the owner or operator may choose to inspect and monitor the closed-vent system in accordance with the requirements under 40 CFR part 63, subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks as specified in 40 CFR 63.172(f) through (h), and complies with the applicable recordkeeping requirements in 40 CFR 63.181 and the applicable reporting requirements in 40 CFR 63.182.

(5) The owner or operator must monitor the operation of each control device in accordance with the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section.

(6) The owner or operator shall maintain records for each control device in accordance with the requirements of § 63.696 of this subpart.

(7) The owner or operator shall prepare and submit reports for each control device in accordance with the requirements of § 63.697 of this subpart.

(8) In the case when an owner or operator chooses to use a design analysis to demonstrate compliance of a control device with the applicable performance requirements specified in this section as provided for in paragraphs (d) through (g) of this section, the Administrator may require that the design analysis be revised or amended by the owner or operator to correct any deficiencies identified by the Administrator. If the owner or operator and the Administrator do not agree on the acceptability of using the design analysis (including any changes required by the Administrator) to demonstrate that the control device achieves the applicable performance requirements, then the disagreement must be resolved using the results of a performance test conducted by the owner or operator in accordance with the requirements of § 63.694(l). The Administrator may choose to have an authorized representative observe the performance test conducted by the owner or operator. Should the results of this performance test not agree with the determination of control device performance based on the design analysis, then the results of the performance test will be used to establish compliance with this subpart.

(c) Closed-vent system requirements.

(1) The vent stream required to be controlled shall be conveyed to the control device by either of the following closed-vent systems:

(i) A closed-vent system that is designed to operate with no detectable organic emissions using the procedure specified in § 63.694(k) of this subpart; or

(ii) A closed-vent system that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(2) In situations when the closed-vent system includes bypass devices that could be used to divert a vent stream from the closed-vent system to the atmosphere at a point upstream of the control device inlet, each bypass device must be equipped with either a flow indicator as specified in paragraph (c)(2)(i) of this section or a seal or locking device as specified in paragraph (c)(2)(ii) of this section, except as provided for in paragraph (c)(2)(iii) of this section:

(i) If a flow indicator is used, the indicator must be installed at the entrance to the bypass line used to divert the vent stream from the closed-vent system to the atmosphere. The flow indicator must indicate a reading at least once every 15 minutes. The owner or operator must maintain records of the following information: hourly records of whether the flow indicator

was operating and whether flow was detected at any time during the hour; and records of all periods when flow is detected or the flow indicator is not operating.

(ii) If a seal or locking device is used to comply with paragraph (c)(2) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (*e.g.*, valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve.

(iii) Equipment needed for safety reasons, including low leg drains, open-ended valves and lines not in emergency shutdown systems, and pressure relief devices subject to the requirements of §63.691(c) are not subject to the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(d) Carbon adsorption control device requirements.

(1) The carbon adsorption system must achieve the performance specifications in either paragraph (d)(1)(i) or (d)(1)(ii) of this section.

(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the carbon adsorption system; or

(ii) Recover 95 percent or more, on a weight-basis, of the total HAP listed in Table 1 of this subpart contained in the vent stream entering the carbon adsorption system.

(2) The owner or operator must demonstrate that the carbon adsorption system achieves the performance requirements in paragraph (d)(1) of this section by either performing a performance test as specified in paragraph (d)(2)(i) of this section or a design analysis as specified in paragraph (d)(2)(ii) of this section.

(i) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of §63.694(l) of this subpart.

(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (d)(2)(ii)(A) or (d)(2)(ii)(B) of this section as applicable to the carbon adsorption system design.

(A) For a regenerable carbon adsorption system, the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total regeneration steam 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 the carbon.

(B) For a nonregenerable carbon adsorption system (e.g., a carbon canister), the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, carbon bed capacity, activated carbon type and working capacity, and design carbon replacement interval based on the total carbon working capacity of the control device and emission point operating schedule.

(3) The owner or operator must monitor the operation of the carbon adsorption system in accordance with the requirements of §63.695(e) using one of the continuous monitoring systems specified in paragraphs (d)(3)(i) through (iii) of this section. Monitoring the operation of a nonregenerable carbon adsorption system (*e.g.*, a carbon canister) using a continuous monitoring system is not required when the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section.

(i) For a regenerative-type carbon adsorption system:

(A) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle.

The integrating regenerating stream flow monitoring device must have an accuracy of ±10 percent; and

(B) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle. The accuracy of the temperature monitoring device must be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±5 °C, whichever is greater.

(ii) A continuous monitoring system to measure and record the daily average concentration level of organic compounds in the exhaust gas stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(4) The owner or operator shall manage the carbon used for the carbon adsorption system, as follows:

(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system. The provisions of this paragraph (d)(4)(i) do not apply to a nonregenerable carbon adsorption system (*e.g.*, a carbon canister) for which the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section.

(ii) The spent carbon removed from the carbon adsorption system must be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(4)(ii)(A) through (d)(4)(ii)(G) of this section.

(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section.

(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emission standard for hazardous air pollutants under another subpart in 40 CFR part 63 or 40 CFR part 61.

(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

(E) Burned in a hazardous waste incinerator for which the owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR part 265, subpart O.

(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(G) Burned in a boiler or industrial furnace for which the owner or operator has designed and operates the unit in accordance with the interim status requirements of 40 CFR part 266, subpart H.

(iii) As an alternative to meeting the requirements in paragraphs (d)(3) and (d)(4)(i) of this section, an owner or operator of a nonregenerable carbon adsorption system may choose to replace on a regular basis the carbon canister or the carbon in the control device using the procedures in either paragraph (d)(4)(iii)(A) or (d)(4)(iii)(B) of this section. For the purpose of complying with this paragraph (d)(4)(iii), a nonregenerable carbon adsorption system means a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister. The spent carbon removed from the nonregenerable carbon adsorption system must be managed according to the requirements in paragraph (d)(4)(ii) of this section.

(A) Monitor the concentration level of the organic compounds in the exhaust vent from the carbon adsorption system on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of paragraph (d)(2)(ii)(B) of this section, whichever is longer.

(B) Replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of paragraph (d)(2)(ii)(B) of this section.

(e) Condenser control device requirements.

(1) The condenser must achieve the performance specifications in either paragraph (e)(1)(i) or (e)(1)(ii) of this section.

(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the condenser; or

(ii) Recover 95 percent or more, on a weight-basis, of the total HAP, listed in Table 1 of this subpart, contained in the vent stream entering the condenser.

(2) The owner or operator must demonstrate that the condenser achieves the performance requirements in paragraph (e)(1) of this section by either performing a performance test as specified in paragraph (e)(2)(i) of this section or a design analysis as specified in paragraph (e)(2)(ii) of this section.

(i) An owner or operator choosing to use a performance tests to demonstrate compliance must conduct the test in accordance with the requirements of § 63.694(l) of this subpart.

(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the following information: description of the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature; and specification of the design outlet organic 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.

(3) The owner or operator must monitor the operation of the condenser in accordance with the requirements of § 63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (e)(3)(i) through (e)(3)(iii) of this section.

(i) A continuous parameter monitoring system to measure and record the daily average temperature of the exhaust gases from the control device. The accuracy of the temperature monitoring device shall be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±5 °C, whichever is greater.

(ii) A continuous monitoring system to measure and record the daily average concentration level of organic compounds in the exhaust gas stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(f) Vapor incinerator control device requirements.

(1) The vapor incinerator must achieve the performance specifications in either paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of this section.

(i) Destroy the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a weight-basis, or

(B) To achieve a total incinerator outlet concentration for the TOC, less methane and ethane, of less than or equal to 20 ppmv on a dry basis corrected to 3 percent oxygen.

(ii) Destroy the HAP listed in Table 1 of this subpart contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a total HAP weight-basis, or

(B) To achieve a total incinerator outlet concentration for the HAP, listed in Table 1 of this subpart, of less than or equal to 20 ppmv on a dry basis corrected to 3 percent oxygen.

(iii) Maintain the conditions in the vapor incinerator combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher.

(2) The owner or operator must demonstrate that the vapor incinerator achieves the performance requirements in paragraph (f)(1) of this section by conducting either a performance test as specified in paragraph (f)(2)(i) of this section or a design analysis as specified in paragraph (f)(2)(ii) of this section, except as provided for in paragraph (f)(2)(iii) of this section.

(i) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of § 63.694(l) of this subpart.

(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (f)(2)(ii)(A) or (f)(2)(ii)(B) of this section as applicable to the vapor incinerator design.

(A) For a thermal vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures in the combustion chamber and the combustion chamber residence time.

(B) For a catalytic vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures across the catalyst bed inlet and outlet, and the design service life of the catalyst.

(iii) An owner or operator is not required to conduct a performance test or design analysis if the incinerator 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.

(3) The owner or operator must monitor the operation of the vapor incinerator in accordance with the requirements of § 63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (f)(3)(i) through (f)(3)(iv) of this section as applicable to the type of vapor incinerator used.

(i) For a thermal vapor incinerator, a continuous parameter monitoring system to measure and record the daily average temperature of the exhaust gases from the control device. The accuracy of the temperature monitoring device must be ±1 percent of the temperature being measured, expressed in degrees Celsius of ±0.5 °C, whichever is greater.

(ii) For a catalytic vapor incinerator, a temperature monitoring device capable of monitoring temperature at two locations equipped with a continuous recorder. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For either type of vapor incinerator, a continuous monitoring system to measure and record the daily average concentration of organic compounds in the exhaust vent stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iv) For either type of vapor incinerator, a continuous monitoring system

that measures alternative operating parameters other than those specified in paragraph (f)(3)(i) or (f)(3)(ii) of this section upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(g) Boilers and process heaters control device requirements.

(1) The boiler or process heater must achieve the performance specifications in either paragraph (g)(1)(i), (g)(1)(ii), (g)(1)(iii), (g)(1)(iv), or (g)(1)(v) of this section.

(i) Destroy the total organic compounds (TOC), less methane and ethane, contained in the vent stream introduced into the flame zone of the boiler or process heater either:

(A) By 95 percent or more, on a weight-basis, or

(B) To achieve in the exhausted combustion gases a total concentration for the TOC, less methane and ethane, of less than or equal to 20 parts ppmv on a dry basis corrected to 3 percent oxygen.

(ii) Destroy the HAP listed in Table 1 of this subpart contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a total HAP weight-basis, or

(B) To achieve in the exhausted combustion gases a total concentration for the HAP, listed in Table 1 of the subpart, of less than or equal to 20 ppmv on a dry basis corrected to 3 percent oxygen.

(iii) Introduce the vent stream into the flame zone of the boiler or process heater and maintain the conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher.

(iv) Introduce the vent stream with the fuel that provides the predominate heat input to the boiler or process heater (i.e., the primary fuel); or

(v) Introduce the vent stream to a boiler or process heater for which the owner or operator either has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H; or has submitted a Notification of Compliance under §§ 63.1207(j) and 63.1210(d) and complies with the requirements of subpart EEE of this part at all times (including times when nonhazardous waste is being burned).

(2) The owner or operator must demonstrate that the boiler or process heater achieves the performance specifications in paragraph (g)(1) of this section chosen by the owner or operator using the applicable method specified in paragraph (g)(2)(i) or (g)(2)(ii) of this section.

(i) If an owner or operator chooses to comply with the performance specifications in either paragraph (g)(1)(i), (ii), or (iii) of this section, the owner or operator must demonstrate compliance with the applicable performance specifications by conducting either a performance test as specified in paragraph (g)(2)(i)(A) of this section or a design analysis as specified in paragraph (g)(2)(i)(B) of this section, except as provided for in paragraph (g)(2)(i)(C) of this section.

(A) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of § 63.694(l) of this subpart.

(B) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the following information: description of the vent stream composition, constituent concentrations, and flow rate; specification of the design minimum and average flame zone temperatures and combustion zone residence time; and description of the method and location by which the vent stream is introduced into the flame zone.

(C) An owner or operator is not required to conduct a performance test or design analysis if the boiler or process heater has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(ii) If an owner or operator chooses to comply with the performance specifications in either paragraph (g)(1)(iv) or (g)(1)(v) of this section, the owner or operator must demonstrate compliance by maintaining the records that document that the boiler or process heater is designed and operated in accordance

with the applicable requirements of this section.

(3) For a boiler or process heater complying with the performance specifications in either paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this section, the owner or operator must monitor the operation of a boiler or process heater in accordance with the requirements of § 63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) A continuous parameter monitoring system to measure and record the daily average combustion zone temperature. The accuracy of the temperature sensor must be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±0.5 °C, whichever is greater;

(ii) A continuous monitoring system to measure and record the daily average concentration of organic compounds in the exhaust vent stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (g)(3)(i) or (g)(3)(ii) of this section upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(h) Flare control device requirements.

(1) The flare must be designed and operated in accordance with the requirements in 40 CFR 63.11(b).

(2) The owner or operator must demonstrate that the flare achieves the requirements in paragraph (h)(1) of this section by performing the procedures specified in paragraph (h)(2)(i) of this section. A previous compliance demonstration for the flare that meets all of the conditions specified in paragraph (h)(2)(ii) of this section may be used by an owner or operator to demonstrate compliance with this paragraph (h)(2).

(i) To demonstrate that a flare achieves the requirements in paragraph (h)(1) of this section, the owner or operator performs all of the procedures specified in paragraphs (h)(2)(i)(A) through (h)(2)(i)(C) of this section.

(A) The owner or operator conducts a visible emission test for the flare in accordance with the requirements specified in 40 CFR 63.11(b)(4).

(B) The owner or operator determines the net heating value of the gas being combusted in the flare in accordance with the requirements specified in 40 CFR 63.11(b)(6); and

(C) The owner or operator determines the flare exit velocity in accordance with the requirements applicable to the flare design as specified in 40 CFR 63.11(b)(7) or 40 CFR 63.11(b)(8).

(ii) A previous compliance demonstration for the flare may be used by an owner or operator to demonstrate compliance with paragraph (h)(2) of this section provided that all conditions for the compliance determination and subsequent flare operation are met as specified in paragraphs (h)(2)(ii)(A) and (h)(2)(ii)(B) of this section.

(A) The owner or operator conducted the compliance determination using the procedures specified in paragraph (h)(2)(i) of this section.

(B) No flare operating parameter or process changes have occurred since completion of the compliance determination which could affect the compliance determination results.

(3) The owner or operator must monitor the operation of the flare using a heat sensing monitoring device (including but not limited to a thermocouple, ultraviolet beam sensor, or infrared sensor) that continuously detects the presence of a pilot flame. The owner or operator must record, for each 1-hour period, whether the monitor was continuously operating and whether a pilot flame was continuously present during each hour as required in § 63.696(b)(3) of this subpart.

[64 FR 38970, July 20, 1999, as amended at 66 FR 1266, Jan. 8, 2001; 68 FR 37351, June 23, 2003; 80 FR 14276, Mar. 18, 2015]

§ 63.694 Testing methods and procedures.

(a) This section specifies the testing methods and procedures required for this subpart to perform the following:

(1) To determine the average VOHAP concentration for off-site material streams at the point-of-delivery for

compliance with standards specified §63.683 of this subpart, the testing methods and procedures are specified in paragraph (b) of this section.

(2) To determine the average VOHAP concentration for treated off-site material streams at the point-of-treatment for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (c) of this section.

(3) To determine the treatment process VOHAP concentration limit (C_R) for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (d) of this section.

(4) To determine treatment process required HAP removal rate (RMR) for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (e) of this section.

(5) To determine treatment process actual HAP removal rate (MR) for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (f) of this section.

(6) To determine treatment process required HAP reduction efficiency (R) for compliance with standards specified in §63.684 of this subpart, the testing methods and procedures are specified in paragraph (g) of this section.

(7) To determine treatment process required HAP biodegradation efficiency (R_{bio}) for compliance with standards specified in §63.684 of this subpart, the testing methods and procedures are specified in paragraph (h) of this section.

(8) To determine treatment process required actual HAP mass removal rate (MR_{bio}) for compliance with standards specified in§63.684 of this subpart, the testing methods and procedures are specified in paragraph (i) of this section.

(9) To determine maximum organic HAP vapor pressure of off-site materials in tanks for compliance with the standards specified in §63.685 of this subpart, the testing methods and procedures are specified in paragraph (j) of this section.

(10) To determine no detectable organic emissions, the testing methods and procedures are specified in paragraph (k) of this section.

(11) To determine closed-vent system and control device performance for compliance with the standards specified in §63.693 of this subpart, the testing methods and procedures are specified in paragraph (l) of this section.

(12) To determine process vent stream flow rate and total organic HAP concentration for compliance with the standards specified in §63.693 of this subpart, the testing methods and procedures are specified in paragraph (m) of this section.

(b) Testing methods and procedures to determine average VOHAP concentration of an off-site material stream at the point-of-delivery.

(1) The average VOHAP concentration of an off-site material at the point-of-delivery shall be determined using either direct measurement as specified in paragraph (b)(2) of this section or by knowledge as specified in paragraph (b)(3) of this section.

(2) *Direct measurement to determine VOHAP concentration*—(i) *Sampling.* Samples of the off-site material stream shall be collected from the container, pipeline, or other device used to deliver the off-site material stream to the plant site in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the source or process generating the off-site material stream. Examples of such

normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(ii) *Analysis.* Each collected sample must be prepared and analyzed in accordance with one of the following methods as applicable to the sampled off-site material for the purpose of measuring the HAP listed in Table 1 of this subpart:

(A) Method 305 in 40 CFR part 63, appendix A.

(B) Method 25D in 40 CFR part 60, appendix A.

(C) Method 624 in 40 CFR part 136, appendix A. If this method is used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 40 CFR 136.5 must be followed.

(D) Method 625 in 40 CFR part 136, appendix A. For the purpose of using this method to comply with this subpart, the owner or operator must perform corrections to these compounds based on the ''accuracy as recovery'' using the factors in Table 7 of the method. If this method is used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 40 CFR 136.5 must be followed.

(E) Method 1624 in 40 CFR part 136, appendix A.

(F) Method 1625 in 40 CFR part 136, appendix A.

(G) Method 8260 in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846, Third Edition, September 1986, as amended by Update I, November 15, 1992. As an alternative, an owner or operator may use any more recent, updated version of Method 8260 approved by the EPA. For the purpose of using Method 8260 to comply with this subpart, the owner or operator must maintain a formal quality assurance program consistent with section 8 of Method 8260, and this program must include the following elements related to measuring the concentrations of volatile compounds:

(*1*) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, and preparation steps.

(*2*) Documentation of specific quality assurance procedures followed during sampling, sample preparation, sample introduction, and analysis.

(*3*) Measurement of the average accuracy and precision of the specific procedures, including field duplicates and field spiking of the off-site material source before or during sampling with compounds having similar chemical characteristics to the target analytes.

(H) Method 8270 in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846, Third Edition, September 1986, as amended by Update I, November 15, 1992. As an alternative, an owner or operator may use any more recent, updated version of Method 8270 approved by the EPA. For the purpose of using Method 8270 to comply with this subpart, the owner or operator must maintain a formal quality assurance program consistent with Method 8270, and this program must include the following elements related to measuring the concentrations of volatile compounds:

(*1*) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, and preparation steps.

(*2*) Documentation of specific quality assurance procedures followed during sampling, sample preparation, sample introduction, and analysis.

(*3*) Measurement of the average accuracy and precision of the specific procedures, including field duplicates and field spiking of the off-site material source before or during sampling with compounds having similar chemical characteristics to the target analytes.

(I) Any other analysis method that has been validated in accordance with the procedures specified in section 5.1 and section 5.3 and the corresponding calculations in section 6.1 or section 6.3 of Method 301 in appendix A in 40 CFR part 63. The data are acceptable if they meet the criteria specified in section 6.1.5 or section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range of 0.7 to 1.30. Other sections of Method 301 are not required.

(iii) *Calculations.* The average VOHAP concentration (C) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (b)(2)(ii) of this section and the following equation. An owner or operator using a test method that provides species-specific chemical concentrations may adjust the measured concentrations to the corresponding concentration values which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

$$C = \frac{1}{Q_T} \times \sum_{i=1}^{n} \left(Q_i \times C_i \right)$$

Where:

C = Average VOHAP concentration of the off-site material at the point-of-delivery on a mass-weighted basis, ppmw.

i = Individual sample ''i'' of the off-site material.

n = Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of off-site material stream represented by C_i, kg/hr.

Q_T = Total mass quantity of off-site material during the averaging period, kg/hr.

C_i = Measured VOHAP concentration of sample ''i'' as determined in accordance with the requirements of § 63.694(a), ppmw.

(3) Knowledge of the off-site material to determine VOHAP concentration.

(i) Documentation shall be prepared that presents the information used as the basis for the owner's or operator's knowledge of the off-site material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source or process generating the off-site material stream; species-specific chemical test data for the off-site material stream from previous testing that are still applicable to the current off-site material stream; previous test data for other locations managing the same type of off-site material stream; or other knowledge based on information in documents such as manifests, shipping papers, or waste certification notices.

(ii) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, an owner or operator may use HAP concentration test data for the off-site material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A of this part as the basis for knowledge of the off-site material.

(iii) An owner or operator using species-specific chemical concentration test data as the basis for knowledge of the off-site material may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

(iv) In the event that the Administrator and the owner or operator disagree on a determination of the average VOHAP concentration for an off-site material stream using knowledge, then the results from a determination of VOHAP concentration using direct measurement as specified in paragraph (b)(2) of this section shall be used to establish compliance with the applicable requirements of this subpart. The Administrator may perform or require that the owner or operator perform this determination using direct measurement.

(c) Determination of average VOHAP concentration of an off-site material stream at the point-of-treatment.

(1) *Sampling.* Samples of the off-site material stream shall be collected at the point-of-treatment in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(i) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(ii) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the treatment process. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(iii) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(2) *Analysis.* Each collected sample must be prepared and analyzed in accordance with one of the methods specified in paragraphs (b)(2)(ii)(A) through (b)(2)(ii)(I) of this section, as applicable to the sampled off-site material, for the purpose of measuring the HAP listed in Table 1 of this subpart.

(3) *Calculations.* The average VOHAP concentration ($\bar{C}$) a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (c)(2) of this section and the following equation. An owner or operator using a test method that provides species-specific chemical concentrations may adjust the measured concentrations to the corresponding concentration values which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

$$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} \left(Q_i \times C_i \right)$$

Where:

$\bar{C}$ = Average VOHAP concentration of the off-site material on a mass-weighted basis, ppmw.

i = Individual sample ''i'' of the off-site material.

n = Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of off-site material stream represented by C_i, kg/hr.

Q_T = Total mass quantity of off-site material during the averaging period, kg/hr.

C_i = Measured VOHAP concentration of sample ''i'' as determined in accordance with the requirements of § 63.694(a), ppmw.

(d) *Determination of treatment process VOHAP concentration limit* (C_R). (1) All of the off-site material streams entering the treatment process shall be identified.

(2) The average VOHAP concentration of each off-site material stream at the point-of-delivery shall be determined using the procedures specified in paragraph (b) of this section.

(3) The VOHAP concentration limit (C_R) shall be calculated by using the results determined for each individual off-site material stream and the following equation:

$$C_R = \frac{\sum_{x=1}^{m}\left(Q_x \times \bar{C}_x\right) + \sum_{y=1}^{n}\left(Q_y \times 500\ \text{ppmw}\right)}{\sum_{x=1}^{m} Q_x + \sum_{y=1}^{n} Q_y}$$

where:

C_R = VOHAP concentration limit, ppmw.

x = Individual off-site material stream ''x'' that has a VOHAP concentration less than 500 ppmw at the point-of-delivery.

y = Individual off-site material stream ''y'' that has a VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery.

m = Total number of ''x'' off-site material streams treated by process.

n = Total number of ''y'' off-site material streams treated by process.

Q_x = Total mass quantity of off-site material stream ''x'', kg/yr.

Q_y = Total mass quantity of off-site material stream ''y'', kg/yr.

$\bar{C}_x$ = VOHAP concentration of off-site material stream ''x'' at the point-of-delivery, ppmw.

(e) Determination of required HAP mass removal rate (RMR).

(1) Each individual stream containing HAP that enters the treatment process shall be identified.

(2) The average VOHAP concentration at the point-of-delivery for each stream identified in paragraph (e)(1) of this section shall be determined using the test methods and procedures specified in paragraph (b) of this section.

(3) For each stream identified in paragraph (e)(1) of this section that has an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery, the average volumetric flow rate and the density of the off-site material stream at the point-of-delivery shall be determined.

(4) The required HAP mass removal rate (RMR) shall be calculated by using the average VOHAP concentration, average volumetric flow rate, and density determined in paragraph (e)(3) of this section for each stream and the following equation:

$$RMR = \sum_{y=1}^{n}\left[V_y \times k_y \times \frac{\left(\bar{C}_y - 500\ \text{ppmw}\right)}{10^6}\right]$$

Where:

RMR = Required HAP mass removal rate, kg/hr.

y = Individual stream ''y'' that has a VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery as determined in § 63.694(b).

n = Total number of ''y'' streams treated by process.

V_y = Average volumetric flow rate of stream ''y'' at the point-of-delivery, m^3/hr.

k_y = Density of stream ''y'', kg/m^3.

$\bar{C}_y$ = Average VOHAP concentration of stream ''y'' at the point-of-delivery as determined in § 63.694(b)(2), ppmw.

(f) Determination of actual HAP mass removal rate (MR).

(1) The actual HAP mass removal rate (MR) shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be at least 1 hour.

(2) The HAP mass flow entering the process (E_b) and the HAP mass flow exiting the process (E_a) shall be determined using the test methods and procedures specified in paragraphs (g)(2) through (g)(4) of this section.

(3) The actual mass removal rate shall be calculated using the HAP mass flow rates determined in paragraph

(f)(2) of this section and the following equation:

$$MR = E_b - E_a$$

where:

MR = Actual HAP mass removal rate, kg/hr.

E_b = HAP mass flow entering process as determined in paragraph (f)(2) of this section, kg/hr.

E_a = HAP mass flow exiting process as determined in paragraph (f)(2) of this section, kg/hr.

(g) Determination of treatment process HAP reduction efficiency (R).

(1) The HAP reduction efficiency (R) for a treatment process shall be determined based on results for a minimum of three consecutive runs.

(2) Each individual stream containing HAP that enters the treatment process shall be identified. Each individual stream containing HAP that exits the treatment process shall be identified. The owner or operator shall prepare a sampling plan for measuring the identified streams that accurately reflects the retention time of the material in the process.

(3) For each run, information shall be determined for each stream identified in paragraph (g)(2) of this section as specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) The mass quantity shall be determined for each stream identified in paragraph (g)(2) of this section as entering the process (Q_b). The mass quantity shall be determined for each stream identified in paragraph (g)(2) of this section as exiting the process (Q_a).

(ii) The average VOHAP concentration at the point-of-delivery shall be determined for each stream entering the process (C_b) (as identified in paragraph (g)(2) of this section) using the test methods and procedures specified in paragraph (b) of this section.

(iii) The average VOHAP concentration at the point-of-treatment shall be determined for each stream exiting the process (C_a) (as identified in paragraph (g)(2) of this section) using the test methods and procedures specified in paragraph (c) of this section.

(4) The HAP mass flow entering the process (E_b) and the HAP mass flow exiting the process (E_a) shall be calculated using the results determined in paragraph (g)(3) of this section and the following equations:

$$E_a = \frac{1}{10^6}\sum_{j=1}^{m}\left(Q_{aj} \times \overline{C_{aj}}\right)$$

$$E_b = \frac{1}{10^6}\sum_{j=1}^{m}\left(Q_{bj} \times \overline{C_{bj}}\right)$$

Where:

E_b = HAP mass flow entering process, kg/hr.

E_a = HAP mass flow exiting process, kg/hr.

m = Total number of runs (at least 3)

j = Individual run ''j''

Q_{bj} = Mass quantity of material entering process during run ''j'', kg/hr.

Q_{aj} = Average mass quantity of material exiting process during run ''j'', kg/hr.

C_{aj} = Average VOHAP concentration of material exiting process during run ''j'' as determined in § 63.694(c), ppmw.

C_{bj} = Average VOHAP concentration of material entering process during run ''j'' as determined in § 63.694(b)(2), ppmw.

(5) The HAP reduction efficiency (R) shall be calculated using the HAP mass flow rates determined in paragraph (g)(4) of this section and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

Where:

R = HAP reduction efficiency, percent.

E_b = HAP mass flow entering process as determined in paragraph (g)(4) of this section, kg/hr.

E_a = HAP mass flow exiting process as determined in accordance with the requirements of paragraph (g)(4) of this section, kg/hr.

(h) Determination of HAP biodegradation efficiency (R_{bio}).

(1) The fraction of HAP biodegraded (F_{bio}) shall be determined using one of the procedures specified in appendix C of this part 63.

(2) The HAP biodegradation efficiency (R_{bio}) shall be calculated by using the following equation:

$$R_{bio} - F_{bio} \times 100$$

where:

R_{bio} = HAP biodegradation efficiency, percent.

F_{bio} = Fraction of HAP biodegraded as determined in paragraph (h)(1) of this section.

(i) *Determination of actual HAP mass removal rate (MR_{bio}).* (1) The actual HAP mass removal rate (MR_{bio}) shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be at least 1 hour.

(2) The HAP mass flow entering the process (E_b) shall be determined using the test methods and procedures specified in paragraphs (g)(2) through (g)(4) of this section.

(3) The fraction of HAP biodegraded (F_{bio}) shall be determined using the procedure specified in 40 CFR part 63, appendix C of this part.

(4) The actual mass removal rate shall be calculated by using the HAP mass flow rates and fraction of HAP biodegraded determined in paragraphs (i)(2) and (i)(3), respectively, of this section and the following equation:

$$MR_{bio} = E^b \times F_{bio}$$

Where:

MR_{bio} = Actual HAP mass removal rate, kg/hr.
E_b = HAP mass flow entering process, kg/hr.
F_{bio} = Fraction of HAP biodegraded.

(j) *Determination of maximum HAP vapor pressure for off-site material in a tank.* (1) The maximum HAP vapor pressure of the off-site material composition managed in a tank shall be determined using either direct measurement as specified in paragraph (j)(2) of this section or by knowledge of the off-site material as specified by paragraph (j)(3) of this section.

(2) Direct measurement to determine the maximum HAP vapor pressure of an off-site material.

(i) Sampling. A sufficient number of samples shall be collected to be representative of the off-site material contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material is collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained onsite in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any one of the following methods may be used to analyze the samples and compute the maximum HAP vapor pressure of the off-site material:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Bulletin 2517, ''Evaporation Loss from External Floating Roof Tanks,'';

(C) Methods obtained from standard reference texts;

(D) ASTM Method 2879–83; or

(E) Any other method approved by the Administrator.

(3) *Use of knowledge to determine the maximum HAP vapor pressure of the off-site material.* Documentation shall be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum HAP vapor pressure of the off-site material is less than the maximum vapor pressure limit listed in Table 3, Table 4, or Table 5 of this subpart for the applicable tank design capacity category. Examples of information that may be used include: the off-site material is generated by a process for which at other locations it previously has been determined by direct measurement that the off-site material maximum HAP vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category. In the event that the Administrator and the owner or operator disagree on a determination of the maximum HAP vapor pressure for an off-site material stream using knowledge, then the results from a determination of HAP vapor pressure using direct measurement as specified in paragraph (j)(2) of this section shall be used to establish compliance with the applicable requirements of this

subpart. The Administrator may perform or require that the owner or operator perform this determination using direct measurement.

(k) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 8.1.1 of Method 21 shall be for the weighted average composition of the organic constituents in the material placed in the unit at the time of monitoring, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (k)(8)(i) or (k)(8)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (k)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (k)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (k)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (k)(9)(i) and (k)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that

passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (k)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (k)(8) is less than 10,000 ppmv.

(l) *Control device performance test procedures.* Performance tests shall be based on representative performance (*i.e.,* performance based on normal operating conditions) and shall exclude periods of startup and shutdown unless specified by the Administrator. 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.

(1) Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites at the inlet and outlet of the control device.

(i) To determine compliance with a control device percent reduction requirement, sampling sites shall be located at the inlet of the control device as specified in paragraphs (l)(1)(i)(A) and (l)(1)(i)(B) of this section, and at the outlet of the control device.

(A) The control device inlet sampling site shall be located after the final product recovery device.

(B) If a vent stream is introduced with the combustion air or as an auxiliary fuel into a boiler or process heater, the location of the inlet sampling sites shall be selected to ensure that the measurement of total HAP concentration or TOC concentration, as applicable, includes all vent streams and primary and secondary fuels introduced into the boiler or process heater.

(ii) To determine compliance with an enclosed combustion device concentration limit, the sampling site shall be located at the outlet of the device.

(2) The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate.

(3) To determine compliance with the control device percent reduction requirement, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A to measure the HAP in Table 1 of this subpart or Method 25A of 40 CFR part 60, appendix A to measure TOC. Method 18 may be used to measure methane and ethane, and the measured concentration may be subtracted from the Method 25A measurement. Alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 in appendix A of this part may be used. The following procedures shall be used to calculate percent reduction efficiency:

(i) A minimum of three sample runs must be performed. The minimum sampling time for each run shall be 1 hour. For Method 18, either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time such as 15 minute intervals during the run.

(ii) The mass rate of either TOC (minus methane and ethane) or total HAP (E_i and E_o ,respectively) shall be computed.

(A) The following equations shall be used:

$$E_i = K_2 \times Q_i \times \sum_{j=1}^{n} \left(C_{ij} \times M_{ij} \right)$$

$$E_o = K_2 \times Q_o \times \sum_{j=1}^{n} \left(C_{oj} \times M_{oj} \right)$$

Where:

C_{ij}, C_{oj} = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, parts per million by volume.

E_i, E_o = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

M_{ij}, M_{oj} = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.

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

K_2 = Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature (gram-mole per standard cubic meter) is 20 °C.

(B) When the TOC mass rate is calculated, the average concentration reading (minus methane and ethane) measured by Method 25A of 40 CFR part 60, appendix A shall be used in the equation in paragraph (l)(3)(ii)(A) of this section.

(C) When the total HAP mass rate is calculated, only the HAP constituents shall be summed using the equation in paragraph (l)(3)(ii)(A) of this section.

(iii) The percent reduction in TOC (minus methane and ethane) or total HAP shall be calculated as follows:

$$R_{cd} = \frac{E_i - E_o}{E_i} \times 100$$

where:

R_{cd} = Control efficiency of control device, percent.

E_i = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet to the control device as calculated under paragraph (l)(3)(ii) of this section, kilograms TOC per hour or kilograms HAP per hour.

E_o = Mass rate of TOC (minus methane and ethane) or total HAP at the outlet of the control device, as calculated under paragraph (l)(3)(ii) of this section, kilograms TOC per hour or kilograms HAP per hour.

(iv) If the vent stream entering a boiler or process heater is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total HAP or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total HAP in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total HAP exiting the device, respectively.

(4) To determine compliance with the enclosed combustion device total HAP concentration limit of this subpart, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A to measure the total HAP in Table 1 of this subpart or Method 25A of 40 CFR part 60, appendix A to measure TOC. Method 18 may be used to measure methane and ethane and the measured concentration may be subtracted from the Method 25A measurement. Alternatively, any other method or data that has been validated according to Method 301 in appendix A of this part, may be used. The following procedures shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen:

(i) A minimum of three sample runs must be performed. The minimum sampling time for each run shall be 1 hour. For Method 18, either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(ii) The TOC concentration or total HAP concentration shall be calculated according to paragraph (m)(4)(ii)(A) or (m)(4)(ii)(B) of this section.

(A) The TOC concentration (C_{TOC}) is the average concentration readings provided by Method 25 A of 40 CFR part 60, appendix A, minus the concentration of methane and ethane.

(B) The total HAP concentration (C_{HAP}) shall be computed according to the following equation:

$$C_{HAP} = \sum_{i=1}^{x} \frac{\sum_{j=1}^{n} C_{ji}}{x}$$

where:

C_{HAP} = Total concentration of HAP compounds listed in Table 1 of this subpart, dry basis, parts per million by volume.

C_{ij} = Concentration of sample components j of sample i, dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

(iii) The measured TOC concentration or total HAP concentration shall be corrected to 3 percent oxygen as follows:

(A) The emission rate correction factor or excess air, integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A shall be used to determine the oxygen concentration ($\%O_{2dry}$). Alternatively, the owner or operator may use Method 3A of 40 CFR part 60, appendix A to determine the oxygen concentration. The samples shall be collected during the same time that the samples are collected for determining TOC concentration or total HAP concentration.

(B) The concentration corrected to 3 percent oxygen (C_c) shall be computed using the following equation:

$$C_c = C_m\left(\frac{17.9}{20.9 - \%0_{2dry}}\right)$$

where:

C_c = TOC concentration or total HAP concentration corrected to 3 percent oxygen, dry basis, parts per million by volume.

C_m = Measured TOC concentration or total HAP concentration, dry basis, parts per million by volume.

$\%O_{2dry}$ = Concentration of oxygen, dry basis, percent by volume.

(m) Determination of process vent stream flow rate and total HAP concentration.

(1) Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, must be used for selection of the sampling site.

(2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter. For vents smaller than 0.10 meter in diameter, sample at the center of the vent.

(3) Process vent stream gas volumetric flow rate must be determined using Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate.

(4) Process vent stream total HAP concentration must be measured using the following procedures:

(i) Method 18 of 40 CFR part 60, appendix A, must be used to measure the total HAP concentration. Alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used.

(ii) Where Method 18 of 40 CFR part 60, appendix A, is used, the following procedures must be used to calculate parts per million by volume concentration:

(A) The minimum sampling time for each run must be 1 hour in which either an integrated sample or four grab samples must be taken. If grab sampling is used, then the samples must be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(B) The total HAP concentration (C_{HAP}) must be computed according to the following equation:

$$C_{HAP} = \frac{\sum_{i=1}^{x}\left(\sum_{j=1}^{n} C_{ji}\right)}{X}$$

Where:

C_{HAP} = Total concentration of HAP compounds listed in Table 1 of this subpart, dry basis, parts per million by volume.

C_{ji} = Concentration of sample component j of the sample i, dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38974, July 20, 1999; 66 FR 1267, Jan. 8, 2001; 80 FR 14277, Mar. 18, 2015]

§ 63.695 Inspection and monitoring requirements.

(a) The owner or operator must install, calibrate, maintain, and operate all monitoring system components according to §§ 63.8, 63.684(e), 63.693(d)(3), (e)(3), (f)(3), (g)(3), and (h)(3), and paragraph (a)(5) of this section and perform the inspection and monitoring procedures specified in paragraphs (a)(1) through (4) of this section.

(1) To inspect tank fixed roofs and floating roofs for compliance with the

Tank Level 2 controls standards specified in § 63.685 of this subpart, the inspection procedures are specified in paragraph (b) of this section.

(2) To inspect and monitor closed-vent systems for compliance with the standards specified in § 63.693 of this subpart, the inspection and monitoring procedures are specified in paragraph (c) of this section.

(3) To inspect and monitor transfer system covers for compliance with the standards specified in § 63.689(c)(1) of this subpart, the inspection and monitoring procedures are specified in paragraph (d) of this section.

(4) To monitor and record off-site material treatment processes for compliance with the standards specified in 63.684(e), the monitoring procedures are specified in paragraph (e) of this section.

(5)(i) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator must operate the continuous monitoring system at all times the affected source is operating. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(ii) The owner or operator may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The owner or operator must use all the data collected during all other required data collection periods in assessing the operation of the control device and associated control system. The owner or operator must report any periods for which the monitoring system failed to collect required data.

(b) Tank Level 2 fixed roof and floating roof inspection requirements.

(1) Owners and operators that use a tank equipped with an internal floating roof in accordance with the provisions of § 63.685(e) of this subpart shall meet the following inspection requirements:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, the internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the waste surfaces from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The owner or operator shall inspect the internal floating roof components as follows except as provided for in paragraph (b)(1)(iii) of this section:

(A) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every calendar year after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 10 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(iii) As an alternative to performing the inspections specified in paragraph (b)(1)(ii) of this section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 5 years. Prior to each inspection, the owner or

operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(2) Owners and operators that use a tank equipped with an external floating roof in accordance with the provisions of § 63.685(f) of this subpart shall meet the following requirements:

(i) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(B) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every year. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(C) If a tank ceases to hold off-site material for a period of 1 year or more, subsequent introduction of off-site material into the tank shall be considered an initial operation for the purposes of paragraphs (b)(2)(i)(A) and (b)(2)(i)(B) of this section.

(D) The owner shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure.

(*1*) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(*2*) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) (⅛-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

(*3*) For a seal gap measured under paragraph (b)(2) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(*4*) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in § 63.685(f)(1) of this subpart.

(E) In the event that the seal gap measurements do not conform to the specifications in § 63.685(f)(1) of this subpart, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(ii) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise

damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The owner or operator shall perform the inspections following installation of the external floating roof and, thereafter, at least once every year.

(C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696(d) of this subpart.

(3) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of § 63.685(g) of this subpart shall meet the following requirements:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a tank is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

(ii) The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696(e) of this subpart.

(4) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (b)(1), (b)(2), or (b)(3) of this section in the following manner:

(i) The owner or operator shall within 45 calendar days of detecting the defect either repair the defect or empty the tank and remove it from service. If within this 45-day period the defect cannot be repaired or the tank cannot be removed from service without disrupting operations at the plant site, the owner or operator is allowed two 30-day extensions. In cases when an owner or operator elects to use a 30-day extension, the owner or operator shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available, and specify a schedule of actions that will ensure that the control equipment will be repaired or the tank emptied as soon as possible.

(ii) When a defect is detected during an inspection of a tank that has been emptied and degassed, the owner or operator shall repair the defect before refilling the tank.

(c) Owners and operators that use a closed-vent system in accordance with the provisions of § 63.693 of this subpart shall meet the following inspection and monitoring requirements:

(1) Each closed-vent system that is used to comply with § 63.693(c)(1)(i) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) At initial startup, the owner or operator shall monitor the closed-vent system components and connections using the procedures specified in § 63.694(k) of this subpart to demonstrate that the closed-vent system operates with no detectable organic emissions.

(ii) After initial startup, the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result

in air emissions. The owner or operator shall monitor a component or connection using the procedures specified in § 63.694(k) of this subpart to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(B) Closed-vent system components or connections other than those specified in paragraph (c)(1)(ii)(A) of this section, shall be monitored at least once per year using the procedures specified in § 63.694(k) of this subpart to demonstrate that components or connections operate with no detectable organic emissions.

(C) The continuous monitoring system required by § 63.693(b)(4)(i) shall monitor and record either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less.

(D) The owner or operator shall visually inspect the seal or closure mechanism required by § 63.693(c)(2)(ii) at least once every month to verify that the bypass mechanism is maintained in the closed position.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of paragraph (c)(3) of this section.

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in § 63.696 of this subpart.

(2) Each closed-vent system that is used to comply with § 63.693(c)(1)(ii) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping; loose connections; or broken or missing caps or other closure devices.

(ii) The owner or operator must perform an initial inspection following installation of the closed-vent system. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c)(3) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(3) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection.

(ii) Repair of a defect may be delayed beyond 45 calendar days if either of the conditions specified in paragraph (c)(3)(ii)(A) or (c)(3)(ii)(B) occurs. In this case, the owner or operator must repair the defect the next time the process or unit that vents to the closed-vent system is shutdown. Repair of the defect must be completed before the process or unit resumes operation.

(A) Completion of the repair is technically infeasible without the shutdown of the process or unit that vents to the closed-vent system.

(B) The owner or operator determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to result by delaying the repair until the next time the process or unit that vents to the closed-vent system is shutdown.

(iii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.696 of this subpart.

(d) Owners and operators that use a transfer system equipped with a cover in accordance with the provisions of § 63.689(c)(1) of this subpart shall meet the following inspection requirements:

(1) The cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover sections or between the cover and its mounting; broken, cracked, or

otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a transfer system is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., access hatches, etc.) and can be opened to the atmosphere.

(2) The owner or operator must perform an initial inspection following installation of the cover. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d)(5) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(5) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (d)(5)(ii) of this section.

(ii) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system is available at the site to accept the material normally handled by the system. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repair of the defect must be completed before the process or unit resumes operation.

(iii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.696 of this subpart.

(e) *Control device monitoring requirements.* For each control device required under § 63.693 to be monitored in accordance with the provisions of this paragraph (e), the owner or operator must ensure that each control device operates properly by monitoring the control device in accordance with the requirements specified in paragraphs (e)(1) through (5) of this section.

(1) A continuous parameter monitoring system must be used to measure the operating parameter or parameters specified for the control device in § 63.693(d) through § 63.693(g) of this subpart as applicable to the type and design of the control device. The continuous parameter monitoring system must meet the following specifications and requirements:

(i) The continuous parameter monitoring system must measure either an instantaneous value at least once every 15 minutes or an average value for intervals of 15 minutes or less and continuously record either:

(A) Each measured data value; or

(B) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(ii) The monitoring system must be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide reasonable assurance that the monitoring equipment is operating properly.

(2) Using the data recorded by the monitoring system, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If operation of the control device is continuous, the operating day is a 24-hour period. If control device operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

(3) For each monitored operating parameter, the owner or operator must

establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the control device must be operated to continuously achieve the applicable performance requirements specified in §63.693(b)(2) of this subpart. Each minimum or maximum operating parameter value must be established in accordance with the requirements in paragraphs (e)(3)(i) and (e)(3)(ii) of this section.

(i) If the owner or operator conducts a performance test to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on values measured during the performance test and supplemented, as necessary, by the control device design specifications, manufacturer recommendations, or other applicable information.

(ii) If the owner or operator uses a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on the control device design analysis and supplemented, as necessary, by the control device manufacturer recommendations or other applicable information.

(4) A deviation for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (e)(4)(i) through (iii) of this section being met. When multiple operating parameters are monitored for the same control device and during the same operating day more than one of these operating parameters meets a deviation criterion specified in paragraphs (e)(4)(i) through (iii) of this section, then a single deviation is determined to have occurred for the control device for that operating day.

(i) A deviation occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (e)(3) of this section.

(ii) A deviation occurs when the period of control device operation is 4 hours or greater in an operating day and the monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour.

(iii) A deviation occurs when the period of control device operation is less than 4 hours in an operating day and more than 1 of the hours during the period does not constitute a valid hour of data due to insufficient monitoring data. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour.

(5) For each deviation, except when the deviation occurs during periods of non-operation of the unit or the process that is vented to the control device (resulting in cessation of HAP emissions to which the monitoring applies), the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard.

(f) *Alternative inspection and monitoring interval.* Following the initial inspection and monitoring of a piece of air pollution control equipment in accordance with the applicable provisions of this section, subsequent inspection and monitoring of the equipment may be performed at intervals longer than 1 year when an owner or operator determines that performing the required inspection or monitoring procedures would expose a worker to dangerous, hazardous, or otherwise unsafe conditions and the owner or operator complies with the requirements specified in paragraphs (f)(1) and (f)(2) of this section.

(1) The owner or operator must prepare and maintain at the plant site written documentation identifying the specific air pollution control equipment designated as ''unsafe to inspect and monitor.'' The documentation

must include for each piece of air pollution control equipment designated as such a written explanation of the reasons why the equipment is unsafe to inspect or monitor using the applicable procedures under this section.

(2) The owner or operator must develop and implement a written plan and schedule to inspect and monitor the air pollution control equipment using the applicable procedures specified in this section during times when a worker can safely access the air pollution control equipment. The required inspections and monitoring must be performed as frequently as practicable but do not need to be performed more frequently than the periodic schedule that would be otherwise applicable to the air pollution control equipment under the provisions of this section. A copy of the written plan and schedule must be maintained at the plant site.

[64 FR 38977, July 20, 1999, as amended at 68 FR 37352, June 23, 2003; 71 FR 20457, Apr. 20, 2006; 80 FR 14278, Mar. 18, 2015]

§ 63.696 Recordkeeping requirements.

(a) The owner or operator subject to this subpart shall comply with the recordkeeping requirements in § 63.10 under 40 CFR 63 subpart A—General Provisions that are applicable to this subpart as specified in Table 2 of this subpart.

(b) The owner or operator of a control device subject to this subpart shall maintain the records in accordance with the requirements of 40 CFR 63.10 of this part.

(c) [Reserved]

(d) Each owner or operator using an internal floating roof to comply with the tank control requirements specified in § 63.685(e) of this subpart or using an external floating roof to comply with the tank control requirements specified in § 63.685(f) of this subpart shall prepare and maintain the following records:

(1) Documentation describing the floating roof design and the dimensions of the tank.

(2) A record for each inspection required by § 63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by § 63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(4) Owners and operators that use a tank equipped with an external floating roof in accordance with the provisions of § 63.685(f) of this subpart shall prepare and maintain records for each seal gap inspection required by § 63.695(b) describing the results of the seal gap measurements. The records shall include the date of that the measurements are performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in § 63.695(b) of this subpart, the records shall include a description of the repairs that were made, the date the repairs were made, and the date the separator was emptied, if necessary.

(e) Each owner or operator using a fixed roof to comply with the tank control requirements specified in § 63.685(g) of this subpart shall prepare and maintain the following records:

(1) A record for each inspection required by § 63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(2) The owner or operator shall record for each defect detected during inspections required by § 63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.695(b)(4) of this

section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(f) Each owner or operator using an enclosure to comply with the tank control requirements specified in § 63.685(i) of this subpart shall prepare and maintain records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, appendix B.

(g) An owner or operator shall record, on a semiannual basis, the information specified in paragraphs (g)(1) and (g)(2) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of § 63.693(d) through (h) of this subpart, as applicable.

(1) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(2) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during these 6 months that the control device did not meet the requirement of § 63.693 (d) through (h) of this subpart, as applicable, due to planned routine maintenance.

(h) An owner or operator shall record the malfunction information specified in paragraphs (h)(1) through (3) of this section.

(1) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure, record the date, time and duration of the failure.

(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(3) Record actions taken to minimize emissions in accordance with § 63.683(e) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(i) For pressure relief devices in offsite material service, keep records of the information specified in paragraphs (i)(1) through (5) of this section, as applicable.

(1) A list of identification numbers for pressure relief devices that the owner or operator elects to route emissions through a closed-vent system to a control device, process or drain system under the provisions in § 63.691(c)(4).

(2) A list of identification numbers for pressure relief devices that do not consist of or include a rupture disk, subject to the provisions in § 63.691(c)(2)(i).

(3) A list of identification numbers for pressure relief devices equipped with rupture disks, subject to the provisions in § 63.691(c)(2)(ii).

(4) The dates and results of the Method 21 of 40 CFR part 60, appendix A, monitoring following a pressure release for each pressure relief device subject to the provisions in § 63.691(c)(2)(i). The results of each monitoring event shall include:

(i) The measured background level.

(ii) The maximum instrument reading measured at each pressure relief device.

(5) For pressure relief devices in offsite material service subject to § 63.691(c)(3), keep records of each pressure release to the atmosphere, including the following information:

(i) The source, nature, and cause of the pressure release.

(ii) The date, time, and duration of the pressure release.

(iii) An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the pressure release and the calculations used for determining this quantity.

(iv) The actions taken to prevent this pressure release.

(v) The measures adopted to prevent future such pressure releases.

(j) (1) For pressure tank closure devices, as specified in § 63.685(h)(2), keep

records of each release to the atmosphere, including the information specified in paragraphs (j)(3) though (7) of this section.

(2) For each closed vent system that includes bypass devices that could divert a stream away from the control device and into the atmosphere, as specified in § 63.693(c)(2), and each open-ended valve or line in an emergency shutdown system which is designed to open automatically in the event of a process upset, as specified in § 63.167(d) or 40 CFR 61.242–6(d), keep records of each release to the atmosphere, including the information specified in paragraphs (j)(3) though (9) of this section.

(3) The source, nature, and cause of the release.

(4) The date, time, and duration of the release.

(5) An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the release and the calculations used for determining this quantity.

(6) The actions taken to prevent this release.

(7) The measures adopted to prevent future such release.

(8) Hourly records of whether the bypass flow indicator specified under § 63.693(c)(2) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

(9) Where a seal mechanism is used to comply with § 63.693(c)(2), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

[61 FR 34158, July 1, 1996, as amended at 80 FR 14279, Mar. 18, 2015]

§ 63.697 Reporting requirements.

(a) Each owner or operator of an affected source subject to this subpart must comply with the notification requirements specified in paragraph (a)(1) of this section and the reporting requirements specified in paragraphs (a)(2) and (3) of this section.

(1) The owner or operator of an affected source must submit notices to the Administrator in accordance with the applicable notification requirements in 40 CFR 63.9 as specified in Table 2 of this subpart. For the purpose of this subpart, an owner or operator subject to the initial notification requirements under 40 CFR 63.9(b)(2) must submit the required notification on or before October 19, 1999, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(i) For pressure relief devices in offsite material service subject to the requirements of § 63.691(c), the owner or operator must submit the information listed in paragraph (a)(1)(ii) of this section in the notification of compliance status required under § 63.9(h) within 150 days after the first applicable compliance date for pressure relief device monitoring.

(ii) For pressure relief devices in offsite material service, a description of the device or monitoring system to be implemented, including the pressure relief devices and process parameters to be monitored (if applicable), a description of the alarms or other methods by which operators will be notified of a pressure release, and a description of how the owner or operator will determine the information to be recorded under § 63.696(i)(5)(ii) through (iii) (*i.e.*, the duration of the pressure release and the methodology and calculations for determining the quantity of HAP listed in Table 1 of this subpart emitted during the pressure release).

(2) The owner or operator of an affected source must submit reports to the Administrator in accordance with the applicable reporting requirements in 40 CFR 63.10 as specified in Table 2 of this subpart.

(3) *Electronic reporting*. Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, the owner or operator must submit the results of the performance test according to the manner specified by either paragraph (a)(3)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*), the owner or operator must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) accessed through the EPA's Central Data Exchange (CDX) (*http://cdx.epa.gov/epa_home.asp*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Owners or operators who claim that some of the performance test information being submitted is confidential business information (CBI) must submit a complete file generated through the use of the EPA's ERT, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Road, Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (a)(3)(i).

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, the owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 60.4.

(b) The owner or operator of a control device used to meet the requirements of § 63.693 of this subpart shall submit the following notifications and reports to the Administrator:

(1) A Notification of Performance Tests specified in § 63.7 and § 63.9(g) of this part,

(2) Performance test reports specified in § 63.10(d)(2) of this part, and

(3) *Reports of malfunctions.* If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(4) A summary report specified in § 63.10(e)(3) shall be submitted on a semiannual basis (*i.e.,* once every 6-month period). The summary report must include a description of all deviations as defined in §§ 63.683(f) and 63.695(e) that have occurred during the 6-month reporting period. For each deviation caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the deviation occurred. For each deviation caused by lack of monitoring data, the report must include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected.

(5) For pressure relief devices in offsite material service subject to § 63.691(c), Periodic Reports must include the information specified in paragraphs (b)(5)(i) through (iii) of this section.

(i) For pressure relief devices in offsite material service subject to § 63.691(c), report the results of all monitoring conducted within the reporting period.

(ii) For pressure relief devices in gas/vapor service subject to § 63.691(c)(2)(i), report any instrument reading of 500 ppm above background or greater, if detected more than 5 days after the pressure release.

(iii) For pressure relief devices in offsite material service subject to § 63.691(c)(3), report each pressure release to the atmosphere, including the following information:

(A) The source, nature, and cause of the pressure release.

(B) The date, time, and duration of the pressure release.

(C) An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the pressure release and

the method used for determining this quantity.

(D) The actions taken to prevent this pressure release.

(E) The measures adopted to prevent future such pressure releases.

(6) *Pressure tank closure device or bypass deviation report.* The owner or operator must submit to the Administrator the information specified in paragraph (b)(6)(iv) of this section when any of the conditions in paragraphs (b)(6)(i) through (iii) of this section are met.

(i) Any pressure tank closure device, as specified in §63.685(h)(2), has released to the atmosphere.

(ii) Any closed vent system that includes bypass devices that could divert a vent a stream away from the control device and into the atmosphere, as specified in §63.693(c)(2), has released directly to the atmosphere.

(iii) Any open-ended valve or line in an emergency shutdown system which is designed to open automatically in the event of a process upset, as specified in §63.167(d) or 40 CFR 61.242–6(d), has released directly to the atmosphere.

(iv) The pressure tank closure device or bypass deviation report must include the information specified in paragraphs (b)(6)(iv)(A) through (E) of this section.

(A) The source, nature and cause of the release.

(B) The date, time and duration of the discharge.

(C) An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the release and the method used for determining this quantity.

(D) The actions taken to prevent this release.

(E) The measures adopted to prevent future such releases.

(c) Each owner or operator using an internal floating roof or external floating roof to comply with the Tank Level 2 control requirements specified in §63.685(d) of this subpart shall notify the Administrator in advance of each inspection required under §63.695(b) of this subpart to provide the Administrator with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Administrator of the date and location of the inspection as follows:

(1) Prior to each inspection to measure external floating roof seal gaps as required under §63.695(b) of this subpart, written notification shall be prepared and sent by the owner or operator so that it is received by the Administrator at least 30 calendar days before the date the measurements are scheduled to be performed.

(2) Prior to each visual inspection of an internal floating roof or external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Administrator at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in paragraph (c)(3) of this section.

(3) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Administrator as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Administrator at least 7 calendar days before refilling the tank.

[61 FR 34158, July 1, 1996, as amended at 64 FR 38981, July 20, 1999; 80 FR 14279, Mar. 18, 2015; 85 FR 73893, Nov. 19, 2020]

§63.698 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of alternatives to the requirements in §§ 63.680, 63.683 through 63.691, and 63.693. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

(5) Approval of alternatives to the electronic reporting requirements in § 63.697(a)(3).

[68 FR 37352, June 23, 2003, as amended at 80 FR 14280, Mar. 18, 2015]

TABLE 1 TO SUBPART DD OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS (HAP) FOR SUBPART DD

CAS No.[a]	Chemical name	f_m 305
75–07–0	Acetaldehyde	1.000
75–05–8	Acetonitrile	0.989
98–86–2	Acetophenone	0.314
107–02–8	Acrolein	1.000
107–13–1	Acrylonitrile	0.999
107–05–1	Allyl chloride	1.000
71–43–2	Benzene (includes benzene in gasoline)	1.000
98–07–7	Benzotrichloride (isomers and mixture)	0.958
100–44–7	Benzyl chloride	1.000
92–52–4	Biphenyl	0.864
542–88–1	Bis(chloromethyl)ether[b]	0.999
75–25–2	Bromoform	0.998
106–99–0	1,3-Butadiene	1.000
75–15–0	Carbon disulfide	1.000
56–23–5	Carbon tetrachloride	1.000
43–58–1	Carbonyl sulfide	1.000
133–90–4	Chloramben	0.633
108–90–7	Chlorobenzene	1.000
67–66–3	Chloroform	1.000
107–30–2	Chloromethyl methyl ether[b]	1.000
126–99–8	Chloroprene	1.000
98–82–8	Cumene	1.000
94–75–7	2,4-D, salts and esters	0.167
334–88–3	Diazomethane[c]	0.999
132–64–9	Dibenzofurans	0.967
96–12–8	1,2-Dibromo-3-chloropropane	1.000
106–46–7	1,4-Dichlorobenzene(p)	1.000
107–06–2	Dichloroethane (Ethylene dichloride)	1.000
111–44–4	Dichloroethyl ether (Bis(2-chloroethyl ether)	0.757
542–75–6	1,3-Dichloropropene	1.000
79–44–7	Dimethyl carbamoyl chloride[c]	0.150
64–67–5	Diethyl sulfate	0.0025
77–78–1	Dimethyl sulfate	0.086
121–69–7	N,N-Dimethylaniline	0.0008
51–28–5	2,4-Dinitrophenol	0.0077
121–14–2	2,4-Dinitrotoluene	0.0848
123–91–1	1,4-Dioxane (1,4-Diethyleneoxide)	0.869
106–89–8	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	0.939
106–88–7	1,2-Epoxybutane	1.000
140–88–5	Ethyl acrylate	1.000
100–41–4	Ethyl benzene	1.000
75–00–3	Ethyl chloride (Chloroethane)	1.000
106–93–4	Ethylene dibromide (Dibromoethane)	0.999
107–06–2	Ethylene dichloride (1,2-Dichloroethane)	1.000
151–56–4	Ethylene imine (Aziridine)	0.867

CAS No.[a]	Chemical name	f_m 305
75–21–8	Ethylene oxide	1.000
75–34–3	Ethylidene dichloride (1,1-Dichloroethane)	1.000
	Glycol ethers[d] that have a Henry's Law constant value equal to or greater than 0.1 Y/X (1.8×10^{-6} atm/gm-mole/m^3) at 25°C.	[e]
118–74–1	Hexachlorobenzene	0.97
87–68–3	Hexachlorobutadiene	0.88
67–72–1	Hexachloroethane	0.499
110–54–3	Hexane	1.000
78–59–1	Isophorone	0.506
58–89–9	Lindane (all isomers)	1.000
67–56–1	Methanol	0.855
74–83–9	Methyl bromide (Bromomethane)	1.000
74–87–3	Methyl chloride (Choromethane)	1.000
71–55–6	Methyl chloroform (1,1,1-Trichloroethane)	1.000
78–93–3	Methyl ethyl ketone (2-Butanone)	0.990
74–88–4	Methyl iodide (Iodomethane)	1.0001
108–10–1	Methyl isobutyl ketone (Hexone)	0.9796
624–83–9	Methyl isocyanate	1.000
80–62–6	Methyl methacrylate	0.916
1634–04–4	Methyl tert butyl ether	1.000
75–09–2	Methylene chloride (Dichloromethane)	1.000
91–20–3	Naphthalene	0.994
98–95–3	Nitrobenzene	0.394
79–46–9	2-Nitropropane	0.989
82–68–8	Pentachloronitrobenzene (Quintobenzene)	0.839
87–86–5	Pentachlorophenol	0.0898
75–44–5	Phosgene[c]	1.000
123–38–6	Propionaldehyde	0.999
78–87–5	Propylene dichloride (1,2–Dichloropropane)	1.000
75–56–9	Propylene oxide	1.000
75–55–8	1,2–Propylenimine (2–Methyl aziridine)	0.945
100–42–5	Styrene	1.000
96–09–3	Styrene oxide	0.830
79–34–5	1,1,2,2–Tetrachloroethane	0.999
127–18–4	Tetrachloroethylene (Perchloroethylene)	1.000
108–88–3	Toluene	1.000
95–53–4	o-Toluidine	0.152
120–82–1	1,2,4–Trichlorobenzene	1.000
71–55–6	1,1,1–Trichloroethane (Methyl chlorform)	1.000
79–00–5	1,1,2–Trichloroethane (Vinyl trichloride)	1.000
79–01–6	Trichloroethylene	1.000
95–95–4	2,4,5–Trichlorophenol	0.108
88–06–2	2,4,6–Trichlorophenol	0.132
121–44–8	Triethylamine	1.000
540–84–1	2,2,4–Trimethylpentane	1.000
108–05–4	Vinyl acetate	1.000
593–60–2	Vinyl bromide	1.000
75–01–4	Vinyl chloride	1.000
75–35–4	Vinylidene chloride (1,1–Dichloroethylene)	1.000
1330–20–7	Xylenes (isomers and mixture)	1.000
95–47–6	o-Xylenes	1.000
108–38–3	m-Xylenes	1.000
106–42–3	p-Xylenes	1.000

NOTES:
$f_{m\ 305}$ = Method 305 fraction measure factor.
a. CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.
b. Denotes a HAP that hydrolyzes quickly in water, but the hydrolysis products are also HAP chemicals.
c. Denotes a HAP that may react violently with water, exercise caustic is an expected analyte.
d. Denotes a HAP that hydrolyzes slowly in water.
e. The $f_{m\ 305}$ factors for some of the more common glycol ethers can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

[64 FR 38981, July 20, 1999]

TABLE 2 TO SUBPART DD OF PART 63—APPLICABILITY OF PARAGRAPHS IN SUBPART A OF THIS PART 63—GENERAL PROVISIONS TO SUBPART DD

Subpart A reference	Applies to Subpart DD	Explanation
63.1(a)(1)	Yes	
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	No	Subpart DD (this table) specifies applicability of each paragraph in subpart A to subpart DD.

Subpart A reference	Applies to Subpart DD	Explanation
63.1(a)(5)–63.1(a)(9)	No	
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	
63.1(a)(12)	Yes	
63.1(b)(1)	No	Subpart DD specifies its own applicability.
63.1(b)(2)	No	Reserved.
63.1(b)(3)	No	
63.1(c)(1)	No	Subpart DD explicitly specifies requirements that apply.
63.1(c)(2)	No	Area sources are not subject to subpart DD.
63.1(c)(3)	No	Reserved.
63.1(c)(4)	No	Reserved.
63.1(c)(5)	Yes	Except that sources are not required to submit notifications overridden by this table.
63.1(c)(6)	Yes.	
63.1(d)	No	
63.1(e)	No	
63.2	Yes	§ 63.681 of subpart DD specifies that if the same term is defined in subparts A and DD, it shall have the meaning given in subpart DD.
63.3	Yes	
63.4(a)(1)–63.4(a)(2)	Yes	
63.4(a)(3)	No	Reserved.
63.4(a)(4)	No	Reserved.
63.4(a)(5)	No	Reserved.
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)(1)	Yes	
63.5(a)(2)	Yes	
63.5(b)(1)	Yes	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes	
63.5(b)(4)	Yes	Except the cross-reference to § 63.9(b) is changed to § 63.9(b)(4) and (5). Subpart DD overrides § 63.9(b)(2) and (b)(3).
63.5(b)(5)	No	Reserved.
63.5(b)(6)	Yes	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	Yes	
63.5(d)(1)(ii)	Yes	
63.5(d)(1)(iii)	Yes	
63.5(d)(2)	No	
63.5(d)(3)	Yes	
63.5(d)(4)	Yes	
63.5(e)	Yes	
63.5(f)(1)	Yes	
63.5(f)(2)	Yes	
63.6(a)	Yes	
63.6(b)(1)	No	Subpart DD specifies compliance dates for sources subject to subpart DD.
63.6(b)(2)	No	
63.6(b)(3)	No.	
63.6(b)(4)	No.	
63.6(b)(5)	No	§ 63.697 of subpart DD includes notification requirements.
63.6(b)(6)	No	
63.6(b)(7)	No	
63.6(c)(1)	No	§ 63.680 of subpart DD specifies the compliance date.
63.6(c)(2)–63.6(c)(4)	No	
63.6(c)(5)	Yes	
63.6(d)	No	
63.6(e)(1)(i)	No	See § 63.683(e) for general duty requirement.
63.6(e)(1)(ii)	No	
63.6(e)(1)(iii)	Yes	
63.6(e)(2)	No	Reserved.
63.6(e)(3)	No	
63.6(f)(1)	No	
63.6(f)(2)(i)	Yes	
63.6(f)(2)(ii)	Yes	Subpart DD specifies the use of monitoring data in determining compliance with subpart DD.
63.6(f)(2)(iii) (A), (B), and (C)	Yes	
63.6(f)(2)(iii) (D)	No	
63.6(f)(2)(iv)	Yes	
63.6(f)(2)(v)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	

Subpart A reference	Applies to Subpart DD	Explanation
63.6(h)	No	Subpart DD does not require opacity and visible emission standards.
63.6(i)	Yes	Except for § 63.6(i)(15), which is reserved.
63.6(j)	Yes	
63.7(a)(1)	No	Subpart DD specifies required testing and compliance demonstration procedures.
63.7(a)(2)	Yes	
63.7(a)(3)	Yes	
63.7(a)(4)	Yes	
63.7(b)	Yes	
63.7(c)	Yes	
63.7(d)	Yes	
63.7(e)(1)	No	See § 63.694(l).
63.7(e)(2)	Yes	
63.7(e)(3)	No	Subpart DD specifies test methods and procedures.
63.7(e)(4)	Yes	
63.7(f)	Yes	
63.7(g)	Yes	
63.7(h)(1)	Yes	
63.7(h)(2)	Yes	
63.7(h)(3)	Yes	
63.7(h)(4)	No	
63.7(h)(5)	Yes	
63.8(a)	No	
63.8(b)(1)	Yes	
63.8(b)(2)	No	Subpart DD specifies locations to conduct monitoring.
63.8(b)(3)	Yes	
63.8(c)(1)(i)	Yes	
63.8(c)(1)(ii)	Yes	
63.8(c)(1)(iii)	No	
63.8(c)(2)	Yes	
63.8(c)(3)	Yes	
63.8(c)(4)	No	Subpart DD specifies monitoring frequency
63.8(c)(5)–63.8(c)(8)	No	
63.8(d)	No	
63.8(e)	No	
63.8(f)(1)	Yes	
63.8(f)(2)	Yes	
63.8(f)(3)	Yes	
63.8(f)(4)(i)	Yes	
63.8(f)(4)(ii)	Yes	
63.8(f)(4)(iii)	No	
63.8(f)(5)(i)	Yes	
63.8(f)(5)(ii)	No	
63.8(f)(5)(iii)	Yes	
63.8(f)(6)	Yes	
63.8(g)	Yes	
63.9(a)	Yes	
63.9(b)(1)(i)	Yes	
63.9(b)(1)(ii)	No	
63.9(b)(2)	Yes	
63.9(b)(3)	No	
63.9(b)(4)	Yes	
63.9(b)(5)	Yes	
63.9(c)	Yes	
63.9(d)	Yes	
63.9(e)	Yes	
63.9(f)	No	
63.9(g)	Yes	
63.9(h)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	For change in major source status only.
63.9(k)	Yes	Only as specified in § 63.9(j).
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)(i)	No	
63.10(b)(2)(ii)	No	See § 63.696(h) for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the volume of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
63.10(b)(2)(iii)	Yes	
63.10(b)(2)(iv)	No	
63.10(b)(2)(v)	No	

Subpart A reference	Applies to Subpart DD	Explanation
63.10(b)(2)(vi)–(ix)	Yes	
63.10(b)(2)(x)–(xi)	Yes	
63.10(b)(2) (xii)–(xiv)	No	
63.10(b)(3)	Yes	
63.10(c)(1)–(6)	No	
63.10(c)(7)–(8)	Yes	
63.10(c)(9)–(15)	No	
63.10(d)(1)	No	
63.10(d)(2)	Yes	
63.10(d)(3)	No	
63.10(d)(4)	Yes	
63.10(d)(5)	No	See § 63.697(b)(3) for reporting of malfunctions.
63.10(e)(1)–63.10(e)(2)	No	
63.10(e)(3)	Yes	
63.10(e)(4)	No	
63.10(f)	Yes	
63.11–63.15	Yes	
63.16	No	

[a] Wherever subpart A specifies "postmark" dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.

[64 FR 38983, July 20, 1999, as amended at 66 FR 1267, Jan. 8, 2001; 80 FR 14280, Mar. 18, 2015; 85 FR 73893, Nov. 19, 2020]

TABLE 3 TO SUBPART DD OF PART 63—TANK CONTROL LEVELS FOR TANKS AT EXISTING AFFECTED SOURCES AS REQUIRED BY 40 CFR 63.685(b)(1)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 75 m^3	Maximum HAP vapor pressure less than 76.6 kPa.	Level 1.
Design capacity less than 75 m^3	Maximum HAP vapor pressure equal to or greater than 76.6 kPa.	Level 2, except that fixed roof tanks equipped with an internal floating roof and tanks equipped with an external floating roof as provided for in § 63.685(d)(1) and (2) shall not be used.
Design capacity equal to or greater than 75 m^3 and less than 151 m^3.	Maximum HAP vapor pressure less than 27.6 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 27.6 kPa.	Level 2.
Design capacity equal to or greater than 151 m^3.	Maximum HAP vapor pressure less than 5.2 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 5.2 kPa.	Level 2.

[80 FR 14282, Mar. 18, 2015]

TABLE 4 TO SUBPART DD OF PART 63—TANK CONTROL LEVELS FOR TANKS AT EXISTING AFFECTED SOURCES AS REQUIRED BY 40 CFR 63.685(b)(1)(ii)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 75 m^3	Maximum HAP vapor pressure less than 76.6 kPa.	Level 1.
Design capacity less than 75 m^3	Maximum HAP vapor pressure equal to or greater than 76.6 kPa.	Level 2, except that fixed roof tanks equipped with an internal floating roof and tanks equipped with an external floating roof as provided for in § 63.685(d)(1) and (2) shall not be used.
Design capacity equal to or greater than 75 m^3 and less than 151 m^3.	Maximum HAP vapor pressure less than 13.1 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 13.1 kPa.	Level 2.
Design capacity equal to or greater than 151 m^3.	Maximum HAP vapor pressure less than 5.2 kPa.	Level 1.

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
	Maximum HAP vapor pressure equal to or greater than 5.2 kPa.	Level 2.

[80 FR 14283, Mar. 18, 2015]

TABLE 5 TO SUBPART DD OF PART 63—TANK CONTROL LEVELS FOR TANKS AT NEW AFFECTED SOURCES AS REQUIRED BY 40 CFR 63.685(b)(2)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 38 m^3	Maximum HAP vapor pressure less than 76.6 kPa.	Level 1.
Design capacity less than 38 m^3	Maximum HAP vapor pressure equal to or greater than 76.6 kPa.	Level 2, except that fixed roof tanks equipped with an internal floating roof and tanks equipped with an external floating roof as provided for in §63.685(d)(1) and (2) shall not be used.
Design capacity equal to or greater than 38 m^3 and less than 151 m^3.	Maximum HAP vapor pressure less than 13.1 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 13.1 kPa.	Level 2.
Design capacity equal to or greater than 151 m^3.	Maximum HAP vapor pressure less than 0.7 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 0.7 kPa.	Level 2.

[80 FR 14283, Mar. 18, 2015]

Subpart EE—National Emission Standards for Magnetic Tape Manufacturing Operations

SOURCE: 59 FR 64596, Dec. 15, 1994, unless otherwise noted.

§63.701 Applicability.

(a) Except as specified in paragraph (b) of this section, the provisions of this subpart apply to:

(1) Each new and existing magnetic tape manufacturing operation located at a major source of hazardous air pollutant (HAP) emissions; and

(2) A magnetic tape manufacturing operation for which the owner or operator chooses to use the provisions of §63.703(b) and (h) to obtain a Federally enforceable limit on its potential to emit HAP.

EXPLANATORY NOTE: A reason the owner or operator would make the choice described in paragraph (a)(2) of this section is if the plant site, without this limit, would be a major source. The owner or operator could use this limit, which would establish the potential to emit from magnetic tape manufacturing operations, in conjunction with the potential to emit from the other HAP emission points at the stationary source, to be an area source. Note, however, that an owner or operator is not required to use the provisions in §63.703(b) and (h) to determine the potential to emit HAP from magnetic tape manufacturing operations.

(b) This subpart does not apply to the following:

(1) Research or laboratory facilities; and

(2) Any coating operation that produces a quantity of magnetic tape that is 1 percent or less of total production (in terms of total square footage coated) from that coating operation in any 12-month period.

(c) The affected source subject to this standard is the magnetic tape manufacturing operation, as defined in §63.702.

(d) An owner or operator of an existing affected source subject to the provisions of this subpart shall comply according to the following schedule:

(1) Within 3 years after the effective date of the standard, if the owner or operator is required to install a new add-on air pollution control device to meet the requirements of §63.703(c) or (g); or

(2) Within 2 years after the effective date of the standard, if a new add-on air pollution control device is not needed to comply with §63.703(c) or (g) of these standards.

(e) The compliance date for an owner or operator of a new affected source subject to the provisions of this subpart is immediately upon startup of the affected source.

(f) The provisions of this subpart apply during periods of startup and shutdown, and whenever magnetic tape manufacturing operations are taking place.

(g) Owners or operators of affected sources subject to the provisions of this subpart shall also comply with the requirements of subpart A as identified in Table 1, according to the applicability of subpart A to such sources.

(h) In any title V permit for an affected source, all research or laboratory facilities that are exempt from the requirements of this subpart shall be clearly identified.

§63.702 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the Clean Air Act and in subpart A of this part.

Add-on air pollution control device means equipment installed at the end of a process vent exhaust stack or stacks that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Examples are incinerators, condensers, carbon adsorbers, and biofiltration units. Transfer equipment and ductwork are not considered in and of themselves add-on air pollution control devices.

Bag slitter means a device for enclosed transfer of particulates. A bag of raw materials is placed in a hopper, the hopper is closed, and an internal mechanism slits the bag, releasing the particulates into either a closed conveyor that feeds the mix preparation equipment or into the mix preparation equipment itself.

Base substrate means the surface, such as plastic or paper, to which a coating is applied.

Capture efficiency means the fraction of all organic vapors or other pollutants generated by a process that are directed to an add-on air pollution control device.

Capture device means a hood, enclosed room, or other means of collecting HAP vapors or other pollutants into a duct that exhausts to an add-on air pollution control device.

Carbon adsorber vessel means one vessel in a series of vessels in a carbon adsorption system that contains carbon and is used to remove gaseous pollutants from a gaseous emission source.

Car seal means a seal that is placed on a device that is used either to open a closed valve or close an opened valve so that the position of the valve cannot be changed without breaking the seal.

Closed system for flushing fixed lines means a system in which the line to be flushed is disconnected from its original position and connected to two closed containers, one that contains cleaning solvent and one that is empty. Solvent is flushed from the container with cleaning solvent, through the line, and into the empty containers.

Coater or coating applicator means the apparatus used to apply a coating to a continuous base substrate.

Coating application means the process by which the coating mix is applied to the base substrate.

Coating operation means any coater, flashoff area, and drying oven located between a base substrate unwind station and a base substrate rewind station that coats a continuous base substrate.

Control device efficiency means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced to the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Drying oven means a chamber that uses heat to bake, cure, polymerize, or dry a surface coating; if the coating contains volatile solvents, the volatile portion is evaporated in the oven.

Enclosed transfer method means a particulate HAP transfer method that uses an enclosed system to prevent particulate HAP from entering the atmosphere as dust. Equipment used for this purpose may include vacuum injection

systems or other mechanical transfer systems, bag slitters, or supersacks.

Equivalent diameter means four times the area of an opening divided by its perimeter.

Facility means all contiguous or adjoining property that is under common ownership or control in which magnetic tape manufacturing is performed. The definition includes properties that are separated only by a road or other public right-of-way.

Flashoff area means the portion of a coating operation between the coater and the drying oven where solvent begins to evaporate from the coated base substrate.

Flushing of fixed lines means the flushing of solvent through lines that are typically fixed and are not associated with the cleaning of a tank, such as the line from the mix room to the coater.

Freeboard ratio means the vertical distance from the surface of the liquid to the top of the sink or tank (freeboard height) divided by the smaller of the length or width of the sink or tank evaporative area.

Magnetic coatings means coatings applied to base substrates to make magnetic tape. Components of magnetic coatings may include: Magnetic particles, binders, dispersants, conductive pigments, lubricants, solvents, and other additives.

Magnetic particles means particles in the coating mix that have magnetic properties. Examples of magnetic particles used in magnetic tape manufacturing are: y-oxide, doped iron oxides, chromium dioxide, barium ferrite, and metallic particles that usually consist of elemental iron, cobalt, and/or nickel.

Magnetic tape means any flexible base substrate that is covered on one or both sides with a coating containing magnetic particles and that is used for audio recording, video recording, or any type of information storage.

Magnetic tape manufacturing operation means all of the emission points within a magnetic tape manufacturing facility that are specifically associated with the manufacture of magnetic tape. These include, but are not limited to:

(1) Solvent storage tanks;

(2) Mix preparation equipment;

(3) Coating operations;

(4) Waste handling devices;

(5) Particulate transfer operations;

(6) Wash sinks for cleaning removable parts;

(7) Cleaning involving the flushing of fixed lines;

(8) Wastewater treatment systems; and

(9) Condenser vents associated with distillation and stripping columns in the solvent recovery area, but not including the vent on a condenser that is used as the add-on air pollution control device.

Mill means the pressurized equipment that uses the dispersing action of beads, combined with the high shearing forces of the centrifugal mixing action, to disperse the aggregates of magnetic particles thoroughly without reducing particle size.

Mix preparation equipment means the vessels, except for mills, used to prepare the magnetic coating.

Natural draft opening means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

Nonregenerative carbon adsorber means a carbon adsorber vessel in which the spent carbon bed does not undergo carbon regeneration in the adsorption vessel.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Overall HAP control efficiency means the total efficiency of the control system, determined by the product of the capture efficiency and the control device efficiency.

Particulate means any material, except uncombined water, that exists as liquid or solid particles such as dust,

smoke, mist, or fumes at standard conditions (760 millimeters of mercury, 0 degrees celsius).

Particulate HAP transfer means the introduction of a particulate HAP into other dry ingredients or a liquid solution.

Removable parts cleaning means cleaning of parts that have been moved from their normal position to a wash tank or sink containing solvent for the purpose of cleaning.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Separator means a device in the wastewater treatment system in which immiscible solvent is physically separated from the water with which it is mixed.

Solvent storage tanks means the stationary tanks that are associated with magnetic tape operations and that store virgin solvent, spent solvent, cleaning solvent, solvent at any stage of the solvent recovery process, or any volatile compound. They do not serve a process function.

Solvent recovery area means the collection of devices used to remove HAP emissions from process air, to recover the HAP, and to purify the HAP. Typically, this area contains a control device such as a carbon adsorber or condenser, the wastewater treatment system, and the distillation columns.

Solvent recovery device means, for the purposes of this subpart, an add-on air pollution control device in which HAP is captured rather than destroyed. Examples include carbon adsorption systems and condensers.

Supersack means a container of particulate from the manufacturer or supplier with attached feed tubes and that is used to transfer particulate under the following conditions: the feed tubes are attached directly to the mix preparation equipment, the attachment interface is sealed, and all openings on the mix transfer equipment are closed to the atmosphere.

Temporary total enclosure means a total enclosure that is constructed for the sole purpose of measuring the fugitive emissions from an affected source. A temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it conforms to the requirements found in § 63.705(c)(4)(i) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the Administrator for approval of a temporary enclosure on a case-by-case basis.

Total enclosure means a structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100 percent capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure must be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. A permanent enclosure that meets the requirements found in § 63.705(c)(4)(i) is a total enclosure.

Utilize means the use of HAP that is delivered to mix preparation equipment for the purpose of formulating coatings, the use of any other HAP (e.g., dilution solvent) that is added at any point in the manufacturing process, and the use of any HAP for cleaning activities. Alternatively, annual

HAP utilization can be determined as net usage; that is, the HAP inventory at the beginning of a 12-month period, plus the amount of HAP purchased during the 12-month period, minus the amount of HAP in inventory at the end of a 12-month period.

Vacuum injection system means a system in which a vacuum draws particulate from a storage container into a closed system that transfers particulates into the mix preparation equipment.

Volatile organic compound (VOC) means any organic compound that participates in atmospheric photochemical reactions or that is measured by EPA Test Methods 18, 24, or 25A in appendix A of part 60 or an alternative test method as defined in § 63.2.

Volatile organic hazardous air pollutant (VOHAP) concentration means the concentration of an individually-speciated organic HAP in a wastewater discharge that is measured by Method 305 of appendix A to 40 CFR part 63.

Waste handling means processing or treatment of waste (liquid or solid) that is generated as a by-product of either the magnetic tape production process or cleaning operations.

Waste handling device means equipment that is used to separate solvent from solid waste (e.g., filter dryers) or liquid waste (e.g., pot stills and thin film evaporators). The solvents are recovered by heating, condensing, and collection.

Wastewater discharge means the water phase that is discharged from the separator in a wastewater treatment system.

Wastewater treatment system means the assortment of devices in which the solvent/water mixture, generated when the carbon bed in the carbon adsorber is desorbed by steam, is treated to remove residual organics in the water.

(b) The nomenclature used in this subpart is defined when presented or has the meaning given below:

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_{aj} = the concentration of HAP or VOC in each gas stream (j) exiting the emission control device, in parts per million by volume.

(3) C_{bi} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device, in parts per million by volume.

(4) C_{di} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device from the affected source, in parts per million by volume.

(5) C_{fk} = the concentration of HAP or VOC in each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(6) C_{gv} = the concentration of HAP or VOC in each uncontrolled gas stream entering each individual carbon adsorber vessel (v), in parts per million by volume. For the purposes of calculating the efficiency of the individual carbon adsorber vessel, C_{gv} may be measured in the carbon adsorption system's common inlet duct prior to the branching of individual inlet ducts to the individual carbon adsorber vessels.

(7) C_{hv} = the concentration of HAP or VOC in the gas stream exiting each individual carbon adsorber vessel (v), in parts per million by volume.

(8) E = the control device efficiency achieved for the duration of the emission test (expressed as a fraction).

(9) F = the HAP or VOC emission capture efficiency of the HAP or VOC capture system achieved for the duration of the emission test (expressed as a fraction).

(10) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(11) G = the calculated mass of HAP per volume of coating solids (in kilograms per liter) contained in a batch of coating.

(12) H_v = the individual carbon adsorber vessel (v) efficiency achieved for the duration of the emission test (expressed as a fraction).

(13) H_{sys} = the efficiency of the carbon adsorption system calculated when each carbon adsorber vessel has an individual exhaust stack (expressed as a fraction).

(14) L_{si} = the volume fraction of solids in each batch of coating (i) applied as determined from the formulation records at the affected source.

(15) M_{ci} = the total mass in kilograms of each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7-day period, as appropriate, as determined from records at the affected source. This quantity shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the mass of the coating has been determined, appropriate adjustments shall be made to account for them.

(16) M_r = the total mass in kilograms of HAP or VOC recovered for a 7-day period.

(17) Q_{aj} = the volumetric flow rate of each gas stream (j) exiting the emission control device in either dry standard cubic meters per hour when EPA Method 18 in appendix A of part 60 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(18) Q_{bi} = the volumetric flow rate of each gas stream (i) entering the emission control device, in dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(19) Q_{di} = the volumetric flow rate of each gas stream (i) entering the emission control device from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(20) Q_{fk} = the volumetric flow rate of each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(21) Q_{gv} = the volumetric flow rate of each gas stream entering each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration. For purposes of calculating the efficiency of the individual carbon adsorber vessel, the value of Q_{gv} can be assumed to equal the value of Q_{hv} measured for that carbon adsorber vessel.

(22) Q_{hv} = the volumetric flow rate of each gas stream exiting each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(23) Q_{in} i = the volumetric flow rate of each gas stream (i) entering the total enclosure through a forced makeup air duct in standard cubic meters per hour (wet basis).

(24) Q_{out} j = the volumetric flow rate of each gas stream (j) exiting the total enclosure through an exhaust duct or hood in standard cubic meters per hour (wet basis).

(25) R = the overall HAP or VOC emission reduction achieved for the duration of the emission test (expressed as a percentage).

(26) RS_i = the total mass in kilograms of HAP or VOC retained in the coated substrate after oven drying for a given magnetic tape product.

(27) V_{ci} = the total volume in liters of each batch of coating (i) applied as determined from records at the affected source.

(28) W_{oi} = the weight fraction of HAP or VOC in each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7-day period, as appropriate, as determined by EPA Method 24 or formulation data. This value shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the weight fraction of HAP or VOC in the coating has been determined, appropriate adjustments shall be made to account for them.

§ 63.703 Standards.

(a) Each owner or operator of any affected source that is subject to the requirements of this subpart shall comply with the requirements of this subpart on and after the compliance dates specified in § 63.701.

(b)(1) The owner or operator subject to § 63.701(a)(2) shall determine limits on the amount of HAP utilized (see definition) in the magnetic tape manufacturing operation as the values for the potential to emit HAP from the magnetic tape manufacturing operation.

(2) The limits on the amount of HAP utilized in the magnetic tape manufacturing operations shall be determined in the following manner.

(i) The potential to emit each HAP from each emission point at the stationary source, other than those from magnetic tape manufacturing operations, shall be calculated and converted to the units of Mg/yr (or tons/yr).

(ii) The limits on the HAP utilized in the magnetic tape manufacturing operation shall be determined as the values that, when summed with the values in paragraph (b)(2)(i) of this section, are less than 9.1 Mg/yr (10 tons/yr) for each individual HAP and 22.7 Mg/yr (25 tons/yr) for the combination of HAP.

(3) The limits on the HAP utilized determined in paragraph (b)(2) of this section shall be in terms of Mg/yr (or tons/yr), calculated monthly on a rolling 12-month average. The owner or operator shall not exceed these limits.

(4) An owner or operator subject to paragraph (b) of this section shall meet the requirements in paragraph (h) of this section.

(5) A magnetic tape manufacturing operation that is subject to paragraph (b) of this section and is located at an area source is not subject to paragraphs (c) through (g) of this section.

(c) Except as provided by § 63.703(b), each owner or operator of an affected source subject to this subpart shall limit gaseous HAP emitted from each solvent storage tank, piece of mix preparation equipment, coating operation, waste handling device, and condenser vent in solvent recovery as specified in paragraphs (c)(1) through (c)(5) of this section:

(1) Except as otherwise allowed in paragraphs (c)(2), (3), (4), and (5) of this section, each owner or operator shall limit gaseous HAP emitted from each solvent storage tank, piece of mix preparation equipment, coating operation, waste handling device, and condenser vent in solvent recovery by an overall HAP control efficiency of at least 95 percent.

(2) An owner or operator that uses an incinerator to control emission points listed in paragraph (c)(1) of this section may choose to meet the overall HAP control efficiency requirement of paragraph (c)(1) of this section, or may operate the incinerator such that an outlet HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved, as long as the efficiency of the capture system is 100 percent.

(3) An owner or operator may choose to meet the requirements of paragraph (c)(1) or (2) of this section by venting the room, building, or enclosure in which the HAP emission point is located to an add-on air pollution control device, as long as the required overall HAP control efficiency of this method is sufficient to meet the requirements of paragraph (c)(1) or (2) of this section.

(4) In lieu of controlling HAP emissions from each solvent storage tank and piece of mix preparation equipment to the level required by paragraph (c)(1) of this section, an owner or operator of an affected source may elect to comply with one of the options set forth in paragraph (c)(4)(i), (ii) or (iii) of this section.

(i) Control HAP emissions from all coating operations by an overall HAP control efficiency of at least 97 percent in lieu of either:

(A) Controlling up to 10 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(B) Controlling 1 piece of mix preparation equipment that does not exceed 1,200 gallons in capacity and up to 8 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(C) Controlling up to 2 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 6 HAP solvent storage tanks that

do not exceed 20,000 gallons each in capacity; or

(D) Controlling up to 3 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 4 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(E) Controlling up to 4 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 2 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(F) Controlling up to 5 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity.

(ii) Control HAP emissions from all coating operations by an overall HAP control efficiency of at least 98 percent in lieu of either:

(A) Controlling up to 15 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(B) Controlling 1 piece of mix preparation equipment that does not exceed 1,200 gallons in capacity and up to 13 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(C) Controlling up to 2 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 11 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(D) Controlling up to 3 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 9 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(E) Controlling up to 4 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 7 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(F) Controlling up to 5 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 5 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(G) Controlling up to 6 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 3 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(H) Controlling up to 7 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 1 HAP solvent storage tank that does not exceed 20,000 gallons in capacity.

(iii) Control HAP emissions from all coating operations by an overall HAP control efficiency of at least 99 percent in lieu of either:

(A) Controlling up to 20 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(B) Controlling 1 piece of mix preparation equipment that does not exceed 1,200 gallons in capacity and up to 18 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(C) Controlling up to 2 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 16 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(D) Controlling up to 3 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 14 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(E) Controlling up to 4 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 12 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(F) Controlling up to 5 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 10 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(G) Controlling up to 6 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 8 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(H) Controlling up to 7 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 6 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(I) Controlling up to 8 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 4 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(J) Controlling up to 9 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity and up to 2 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(K) Controlling up to 10 pieces of mix preparation equipment that do not exceed 1,200 gallons each in capacity.

(iv) Owners or operators choosing to meet the requirements of paragraphs (c)(4)(i), (ii), or (iii) of this section are also subject to the reporting requirement of §63.707(k).

(5) In lieu of controlling HAP emissions from a coating operation to the level required by paragraph (c)(1) of this section, owners or operators may use magnetic coatings that contain no greater than 0.18 kilograms of HAP per liter of coating solids for that coating operation. For the requirements of this paragraph, §§63.6(e)(3), 63.6(f) (1) and (2), 63.8(b) (2) and (3), 63.8(c), 63.8(d), 63.8(e), 63.8(g), 63.9 (e) and (g), 63.10(c), 63.10(d) (2), (3), and (5), 63.10(e) (1) and (2), and 63.11 of subpart A do not apply.

(d) *Particulate transfer operations.* Except as stipulated by §63.703(b), each owner or operator of an affected source subject to this subpart shall:

(1) Use an enclosed transfer method to perform particulate HAP transfer; or

(2) Direct emissions from particulate HAP transfer through a hood or enclosure to a baghouse or fabric filter that exhibits no visible emissions while controlling HAP emissions from particulate HAP transfer.

(e) *Wash sinks for cleaning removable parts.* (1) Except as stipulated by §63.703(b), each owner or operator of an affected source subject to this subpart shall limit gaseous HAP emissions from each wash sink containing HAP:

(i) So that the overall HAP control efficiency is no less than 88 percent; or

(ii) By maintaining a minimum freeboard ratio of 75 percent in the wash sink at all times when the sink contains HAP.

(2) Owners or operators may meet the requirements of paragraph (e)(1)(i) of this section by venting the room, building, or enclosure in which the sink is located, as long as the overall HAP control efficiency of this method is demonstrated to be at least 88 percent using the test methods in §63.705(e).

(3) Wash sinks subject to the control provisions of subpart T of this part are not subject to paragraph (e)(1) or (e)(2) of this section.

(f) *Equipment for flushing fixed lines.* (1) Except as stipulated by §63.703(b), each owner or operator of an affected source subject to this subpart shall limit gaseous HAP emissions from each affected set of equipment for flushing fixed lines:

(i) So that the overall HAP control efficiency is at least 95 percent; or

(ii) By using a closed system for flushing fixed lines.

(2) Owners or operators may meet the requirements of paragraph (f)(1)(i) of this section by venting the room, building, or enclosure in which the fixed lines are located, as long as the overall HAP control efficiency of this method is demonstrated to be at least 95 percent using the test methods in §63.705(f).

(g) *Wastewater treatment systems.* (1) Except as stipulated by §63.703(b), each owner or operator of an affected source subject to this subpart shall:

(i) Treat the wastewater discharge to remove each HAP from magnetic tape manufacturing operations that is present in the wastewater discharge by at least the fraction removed (F_R) specified in Table 9 of 40 CFR part 63, subpart G; or

(ii) Treat (other than by dilution) the HAP from magnetic tape manufacturing operations that are present in the wastewater discharge such that the exit concentration is less than 50 ppmw of total VOHAP.

(2) The treatment method used to meet the requirements of paragraph (g)(1) of this section shall not transfer emissions from the water to the atmosphere in an uncontrolled manner.

(h)(1) Magnetic tape manufacturing operations that are subject to §63.703(b) and are not at major sources are not subject to §§63.6(e), 63.6(f), 63.6(g),

63.6(i)(4), 63.7, 63.8, 63.9 (c) through (h), 63.10(b)(2), 63.10(c), 63.10(d) (2) through (5), 63.10(e), and 63.11 of subpart A.

(2) Magnetic tape manufacturing operations subject to §63.703(b) shall fulfill the recordkeeping requirements of §63.706(e) and the reporting requirements of §63.707 (b), (c), and (j).

(3) An owner or operator of a magnetic tape manufacturing operation subject to §63.703(b) who chooses to no longer be subject to §63.703(b) shall notify the Administrator or delegated State of such change. If by no longer being subject to §63.703(b), the source at which the magnetic tape manufacturing operation is located would become a major source, the owner or operator shall meet the following requirements, starting from the date of such notification:

(i) Comply with paragraphs (c) through (g) of this section, and other provisions of this subpart within the timeframe specified in §63.6(c)(5); and

(ii) Comply with the HAP utilization limits in §63.703(b) until the requirements of paragraph (h)(3)(i) of this section are met.

(i) For any solvent storage tank, piece of mix preparation equipment, waste handling device, condenser vent in solvent recovery, wash sink for cleaning removable parts, and set of equipment for flushing of fixed lines, the owner or operator may, instead of meeting the requirements of paragraphs (c)(1), (e)(1)(i), or (f)(1)(i) of this section, vent the gaseous HAP emissions to an add-on air pollution control device other than an incinerator that, in conjunction with capture equipment or ductwork, is designed to achieve an overall HAP control efficiency of at least 95 percent for the emissions from the coating operation, and achieve an alternate outlet concentration limit when coating operations are not occurring, as determined in §63.704(b)(11)(ii).

(j) The requirements of this subpart do not preclude the use of pressure relief valves and vacuum relief valves for safety purposes.

[59 FR 64596, Dec. 15, 1994, as amended at 64 FR 17464, Apr. 9, 1999]

§63.704 Compliance and monitoring requirements.

(a) For owners or operators of an affected source that are using add-on air pollution control equipment or a steam stripper to comply with §63.703, paragraph (b) of this section identifies the operating parameter to be monitored to demonstrate continuous compliance. For all owners or operators subject to §63.703, except §63.703(b) and (h), regardless of the type of control technique used, paragraph (c) of this section identifies the procedures that must be followed to demonstrate continuous compliance with §63.703.

(b) *Establishing a limit under §63.703(i) and operating parameter values.* The owner or operator of an affected source subject to §63.703 except §63.703(b) and (h), shall establish the operating parameter value to be monitored for compliance as required by paragraph (c) of this section, in accordance with paragraphs (b)(1) through (b)(11) of this section. An owner or operator subject to §63.703(i) shall establish a limit as required in paragraph (b)(11)(ii) of this section.

(1) Except as allowed by paragraphs (b)(2), (3), (4), (5), or (9) of this section, for each add-on air pollution control device used to control solvent HAP emissions, the owner or operator shall fulfill the requirements of paragraph (b)(1)(i) or (ii) of this section.

(i) The owner or operator shall establish as a site-specific operating parameter the outlet total HAP or VOC concentration that demonstrates compliance with §63.703(c)(1), (c)(2), (c)(4), (e)(1)(i), (f)(1)(i), or (i) as appropriate; or

(ii) The owner or operator shall establish as the site-specific operating parameter the control device efficiency that demonstrates compliance with §63.703(c)(1), (c)(4), (e)(1)(i), and (f)(1)(i).

(iii) When a nonregenerative carbon adsorber is used to comply with §63.703(c)(1), the site-specific operating parameter value may be established as part of the design evaluation used to demonstrate initial compliance (§63.705(c)(6)). Otherwise, the site-specific operating parameter value shall be established during the initial performance test conducted according to

the procedures of § 63.705(c)(1), (2), (3), or (4).

(2) For each condenser used as the add-on air pollution control device to comply with § 63.703(c), (e)(1)(i), (f)(1)(i) or (i), in lieu of meeting the requirements of § 63.704(b)(1), during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), or (4), the owner or operator may establish as a site-specific operating parameter the maximum temperature of the condenser vapor exhaust stream and shall set the operating parameter value that demonstrates compliance with § 63.703(c), (e)(1)(i), (f)(1)(i) or (i) as appropriate;

(3) For each thermal incinerator, in lieu of meeting the requirements of § 63.704(b)(1), during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), or (4), the owner or operator may establish as a site-specific operating parameter the minimum combustion temperature and set the operating parameter value that demonstrates compliance with § 63.703(c), (e)(1)(i), or (f)(1)(i), as appropriate.

(4) For each catalytic incinerator, in lieu of meeting the requirements of § 63.704(b)(1), during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), or (4), the owner or operator may establish as site-specific operating parameters the minimum gas temperature upstream of the catalyst bed and the minimum gas temperature difference across the catalyst bed, and set the operating parameter values that demonstrate compliance with § 63.703(c), (e)(1)(i), or (f)(1)(i), as appropriate.

(5) For each nonregenerative carbon adsorber, in lieu of meeting the requirements of § 63.704(b)(1), the owner or operator may establish as the site-specific operating parameter the carbon replacement time interval, as determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system. The carbon replacement time interval shall be established either as part of the design evaluation to demonstrate initial compliance (§ 63.705(c)(6)), or during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), (3), or (4).

(6) Each owner or operator venting solvent HAP emissions from a source through a room, enclosure, or hood, to a control device to comply with § 63.703(c), (e)(1)(i), (f)(1)(i), or (i) shall:

(i) Submit to the Administrator with the compliance status report required by § 63.9(h) of the General Provisions a plan that:

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance; and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with § 63.703(c), (e)(1)(i), (f)(1)(i), or (i), as appropriate; and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(7) For each baghouse or fabric filter used to control particulate HAP emissions in accordance with § 63.703(d)(2), the owner or operator shall establish as the site-specific operating parameter the minimum ventilation air flow rate through the inlet duct to the baghouse or fabric filter that ensures that particulate HAP are being captured and delivered to the control device. The minimum ventilation air flow rate is to be supported by the engineering calculations that are considered part of the initial performance test, as required by § 63.705(g)(2).

(8) Owners or operators subject to § 63.704(b)(1), (2), (3), (4), (5), (6), or (7) shall calculate the site-specific operating parameter value, or range of values, as the arithmetic average of the maximum and/or minimum operating parameter values, as appropriate, that demonstrate compliance with § 63.703(c), (d), (e), (f) or (i) during the multiple test runs required by § 63.705(b)(2) and (b)(1), or during the multiple runs of other tests conducted as allowed by paragraph § 63.704(b)(11).

(9) For each solvent recovery device used to comply with § 63.703(c), in lieu of meeting the requirements of paragraph (b)(1) of this section, the results of the material balance calculation conducted in accordance with § 63.705(c)(1) may serve as the site-specific operating parameter that demonstrates compliance with § 63.703(c).

(10) Owners or operators complying with the provisions of § 63.703(g) shall establish the site-specific operating parameter according to paragraph (b)(10)(i) or (ii) of this section.

(i) Owners or operators using a steam stripper shall establish the steam-to-feed ratio as the site-specific operating parameter, except as allowed in paragraph (b)(10)(ii) of this section, according to the following criteria:

(A) The minimum operating parameter value shall correspond to at least the fraction removed specified in § 63.703(g)(1)(i) and be submitted to the permitting authority for approval with the design specifications required by § 63.705(h)(1); or

(B) The minimum operating parameter value shall be that value that corresponds to a total VOHAP outlet concentration in the wastewater of less than 50 ppmw as determined through tests conducted in accordance with § 63.705(b)(9) and (h)(2); or

(C) The minimum operating parameter value shall be the value that corresponds to at least the fraction removed specified in § 63.705(g)(1)(i), as demonstrated through tests conducted in accordance with § 63.705(b)(9) and (h)(3).

(ii) Owners or operators complying with § 63.703(g) through the use of a steam stripper or any other control technique may establish as a site-specific operating parameter the outlet total VOHAP concentration according to the following criteria:

(A) The minimum operating parameter value shall correspond to at least the fraction removed specified in § 63.703(g)(1)(i) and be submitted to the permitting authority for approval with the design specifications required by § 63.705(h)(1); or

(B) The minimum operating parameter value shall be a total VOHAP outlet concentration in the wastewater of less than 50 ppmw, as required by § 63.703(g)(1)(ii), and as determined through tests conducted in accordance with § 63.705 (b)(9) and (h)(2); or

(C) The minimum operating parameter value shall be the value that corresponds to at least the fraction removed specified in § 63.705(g)(1)(i), as demonstrated through tests conducted in accordance with § 63.705 (b)(9) and (h)(3).

(11) *Compliance provisions for nonrepresentative operating conditions.* (i) The owner or operator of an affected source may conduct multiple performance tests to establish the operating parameter value, or range of values, that demonstrates compliance with the standards in § 63.703 during various operating conditions.

(ii) To establish an alternate outlet concentration limit as provided in § 63.703(i), the owner or operator, when the coating operation is not occurring, shall conduct a performance test using the methods in § 63.705 for determining initial compliance with § 63.703 (c)(1), (e)(1)(i) or (f)(1)(i), or shall collect data from continuous emission monitors used to determine continuous compliance as specified in § 63.704 (b) and (c). During the period in which this limit is being established, the control device shall be operated in accordance with good air pollution control practices and in the same manner as it was operated to achieve the emission limitation for coating operations. Owners or operators choosing to establish such an alternative shall also comply with paragraphs (b)(11)(ii) (A) and (B) of this section.

(A) The owner or operator shall submit the alternate outlet HAP concentration limit within 180 days after the compliance demonstration required by § 63.7 of subpart A, to the Administrator, as required by § 63.707(k)(1).

(B) The Administrator will approve or disapprove the limit proposed in accordance with paragraph (b)(11)(ii)(A) of this section within 60 days of receipt of the report required by § 63.707(k)(1), and any other supplemental information requested by the Administrator to support the alternate limit.

(c) *Continuous compliance monitoring.* Following the date on which the initial compliance demonstration is completed, continuous compliance with the

standards shall be demonstrated as outlined in paragraphs (c), (d), (e), or (f) of this section.

(1)(i) Each owner or operator of an affected source subject to §63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) of this subpart shall monitor the applicable parameters specified in paragraphs (c)(3), (4), (5), (6), (7), or (9) of this section depending on the type of control technique used, and shall monitor the parameters specified in paragraph (c)(10) of this section.

(ii) Each owner or operator of an affected source subject to §63.703(c)(5) of this subpart shall demonstrate continuous compliance as required by paragraph (c)(8) of this section.

(iii) Each owner or operator of an affected source subject to §63.703(d)(2) of this subpart shall demonstrate continuous compliance as required by paragraph (e) of this section.

(iv) Each owner or operator of an affected source subject to §63.703(g) of this subpart shall demonstrate continuous compliance as required by paragraph (d) of this section.

(2) Compliance monitoring shall be subject to the following provisions.

(i) Except as allowed by paragraph (c)(3)(i)(C) of this section, all continuous emission monitors shall comply with performance specification (PS) 8 or 9 in 40 CFR part 60, appendix B, as appropriate depending on whether volatile organic compound (VOC) or HAP concentration is being measured. The requirements in appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators must challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(ii) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The thermocouple calibration shall be verified or replaced every 3 months. The replacement shall be done either if the owner or operator chooses not to calibrate the thermocouple, or if the thermocouple cannot be properly calibrated.

(iii) If the effluent from multiple emission points are combined prior to being channeled to a common control device, the owner or operator is required only to monitor the common control device, not each emission point.

(3) Owners or operators complying with §63.703(c), (e)(1)(i), (f)(1)(i), or (i) through the use of a control device and establishing a site-specific operating parameter in accordance with §63.704(b)(1) shall fulfill the requirements of paragraphs (c)(3)(i) of this section and paragraph (c)(3)(ii), (iii), (iv), or (v) of this section, as appropriate.

(i) The owner or operator shall install, calibrate, operate, and maintain a continuous emission monitor.

(A) The continuous emission monitor shall be used to measure continuously the total HAP or VOC concentration at both the inlet and the outlet whenever HAP from magnetic tape manufacturing operations are vented to the control device, if continuous compliance is demonstrated through a percent efficiency calculation (§63.704(b)(1)(ii)); or

(B) The continuous emission monitor shall be used to measure continuously the total outlet HAP or VOC concentration whenever HAP from magnetic tape manufacturing operations are vented to the control device, if the provisions of §63.704(b)(1)(i) are being used to determine continuous compliance.

(C) For owners or operators using a nonregenerative carbon adsorber, in lieu of using continuous emission monitors as specified in paragraph (c)(3)(i)(A) or (B) of this section, the owner or operator may use a portable monitoring device to monitor total HAP or VOC concentration at the inlet and outlet, or outlet of the carbon adsorber, as appropriate.

(*1*) The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications.

(*2*) The monitoring device shall meet the requirements of part 60, appendix A, method 21, sections 2, 3, 4.1, 4.2, and 4.4. For the purposes of paragraph (c)(3)(i)(C) of this section, the words ''leak definition'' in method 21 shall be the outlet concentration determined in

accordance with § 63.704(b)(1). The calibration gas shall either be representative of the compounds to be measured or shall be methane, and shall be at a concentration associated with 125 percent of the expected organic compound concentration level for the carbon adsorber outlet vent.

(*3*) The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber outlet vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The maximum reading during that period shall be used as the measurement.

(ii) If complying with § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of a carbon adsorption system with a common exhaust stack for all of the carbon vessels, the owner or operator shall not operate the control device at an average control efficiency less than that required by § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i) or at an average outlet concentration exceeding the site-specific operating parameter value or that required by § 63.703(i), for three consecutive adsorption cycles. Operation in this manner shall constitute a violation of § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(iii) If complying with § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of a carbon adsorption system with individual exhaust stacks for each of the multiple carbon adsorber vessels, the owner or operator shall not operate any carbon adsorber vessel at an average control efficiency less than that required by § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i), or at an average outlet concentration exceeding the site-specific operating parameter value or that required by § 63.703(i), as calculated daily using a 3-day rolling average. Operation in this manner shall constitute a violation of § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(iv) If complying with § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of any control device other than a carbon adsorber, the owner or operator shall not operate the control device at an average control efficiency less than that required by § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i), or at an average outlet concentration exceeding the site-specific operating parameter value or that required by § 63.703(c)(2) or (i), as calculated for any 3-hour period. Operation in this manner shall constitute a violation of § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(v) If complying with § 63.703(c)(1) through the use of a nonregenerative carbon adsorber, in lieu of the requirements of paragraphs (c)(3) (ii) or (iii) of this section, the owner or operator may:

(A) monitor the VOC or HAP concentration of the adsorber exhaust daily or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater; operation of the control device at a HAP or VOC concentration greater than that determined in accordance with § 63.704(b)(1)(iii) shall constitute a violation of § 63.703 (c)(1), (e)(1)(i), or (f)(1)(i); or

(B) replace the carbon in the carbon adsorber system with fresh carbon at a regular predetermined time interval as determined in accordance with § 63.704(b)(5); failure to replace the carbon at this predetermined time interval shall constitute a violation of § 63.703 (c)(1), (e)(1)(i), or (f)(1)(i).

(4) Owners or operators complying with § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of a condenser as the add-on air pollution control device, and demonstrating compliance in accordance with § 63.704(b)(2), shall install, calibrate, operate, and maintain a thermocouple to measure continuously the temperature of the condenser vapor exhaust stream whenever HAP from magnetic tape manufacturing operations are vented to the control device. Operation of the control device at an average vapor exhaust temperature greater than the site-specific operating parameter value or values established in accordance with § 63.704(b)(2) for any 3-hour period shall constitute a violation of § 63.703 (c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i) or (i).

(5) Owners or operators complying with § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i) through the use of a thermal incinerator and demonstrating compliance in accordance with

§ 63.704(b)(3) shall install, calibrate, operate, and maintain a thermocouple to measure continuously the combustion temperature whenever HAP from magnetic tape manufacturing operations are vented to the control device. Operation of the control device at an average combustion temperature less than the operating parameter value or values established in accordance with § 63.704(b)(3) for any 3-hour period shall constitute a violation of § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i).

(6) Owners or operators complying with § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i) through the use of a catalytic incinerator and demonstrating compliance in accordance with § 63.704(b)(4) shall install, calibrate, operate, and maintain a thermocouple to measure continuously the gas temperature both upstream and downstream of the catalyst bed whenever HAP from magnetic tape manufacturing operations are vented to the control device. Operation of the control device at an average upstream gas temperature, or at an average gas temperature difference across the catalyst bed, less than the operating parameter values established in accordance with § 63.704(b)(4) for any 3-hour period shall constitute a violation of § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i).

(7) Owners or operators complying with § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) by capturing emissions through a room, enclosure, or hood shall install, calibrate, operate, and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.704(b)(6) whenever HAP from magnetic tape manufacturing operations are vented through the capture device. Operation of the capture device at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.704(b)(6) for any 3-hour period shall constitute a violation of § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(8) The owner or operator of an affected source complying with § 63.703(c)(5) shall demonstrate continuous compliance by using a coating that has a HAP content of no greater than 0.18 kilograms of HAP per liter of coating solids, as measured in accordance with § 63.705(c)(5), and by maintaining and reporting the records required by §§ 63.706(f) and 63.707(e) and (i)(2).

(9) For owners or operators complying with § 63.703 (c)(1), (c)(3), or (c)(4) through the use of a solvent recovery device and demonstrating initial compliance in accordance with the provisions of § 63.705(c)(1), continuous compliance shall be demonstrated using procedures in § 63.705(c)(1) and through the recordkeeping and reporting requirements of §§ 63.706(d), 63.707(d), and 63.707(i)(5). The provisions of § 63.8(b) (2) and (3), (c), (d), (e), (f), and (g) (1), and (2) of subpart A do not apply.

(10) The owner or operator of an affected emission point using a vent system that contains bypass lines (not including equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes) that could potentially divert a vent stream away from the control device used to comply with § 63.703 (c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) shall:

(i) Install, calibrate, maintain, and operate a flow indicator that provides a record of vent stream flow at least once every 15 minutes; records shall be generated as specified in § 63.706(c)(1); and the flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(ii) Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; a visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line; or

(iii) Ensure that any bypass line valve is in the closed position through continuous monitoring of valve position; the monitoring system shall be inspected at least once every month to ensure that it is functioning properly; or

(iv) Use an automatic shutdown system in which any HAP-emitting operations are ceased when flow from these operations is diverted away from the control device to any bypass line; the automatic system shall be inspected at least once every month to ensure that it is functioning properly.

(d) Owners or operators complying with §63.703(g) shall demonstrate continuous compliance in accordance with paragraph (d)(1) or (d)(2) of this section.

(1) An owner or operator that established the steam-to-feed ratio as the site-specific operating parameter in accordance with §63.704(b)(10)(i) shall continuously measure the steam-to-feed ratio whenever HAP-containing wastewater from magnetic tape manufacturing operations is being fed to the steam stripper. Operation of the steam stripper at a steam-to-feed ratio less than the operating parameter value or values established in accordance with §63.704(b)(10)(i) for any 3-hour period shall constitute a violation of §63.703(g).

(2) An owner or operator that established the total outlet VOHAP concentration of the wastewater discharge as the site-specific operating parameter in accordance with §63.704(b)(10)(ii) shall measure the total VOHAP concentration of the wastewater discharge once per month. Operation of the control device at an outlet VOHAP concentration greater than the operating parameter value or values established in accordance with §63.704(b)(10)(ii) for any month shall constitute a violation of §63.703(g).

(e) Owners or operators complying with §63.703(d)(2) of this subpart through the use of a baghouse or fabric filter shall perform visible emission testing each day that particulate HAP transfer occurs, using the procedures in §63.705(b)(10). Owners or operators shall also install, calibrate, and operate the instrumentation necessary to continuously monitor the ventilation air flow rate in the inlet duct to the baghouse or fabric filter whenever particulate HAP transfer occurs. The occurrence of visible emissions shall constitute a violation of §63.703(d)(2), and the operation of the baghouse or fabric filter at a flow rate less than the value or values established in accordance with §63.704(b)(7) for any 3-hour period shall constitute a violation of §63.703(d)(2).

(f) An owner or operator who uses an air pollution control device not listed in §63.704 to comply with §63.703(c), (e)(1)(i), (f)(1)(i), or (i), or a device other than a steam stripper to comply with §63.703(g) shall submit to the Administrator a description of the device, test data verifying the performance of the device, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard. The monitoring plan submitted by an owner or operator in accordance with this paragraph is subject to approval by the Administrator.

§63.705 Performance test methods and procedures to determine initial compliance.

(a) Except as specified in §63.705(a) (1) through (3), to determine initial compliance with the emission limits under §63.703 (c), (d)(2), (e)(1), (f)(1), and (g), the owner or operator shall conduct an initial performance demonstration as required under §63.7 using the procedures and test methods listed in §63.7 and §63.705. If multiple emission points are vented to one common control device to meet the requirements of §63.703 (c), (d)(2), (e)(1), and (f)(1), only one performance test is required to demonstrate initial compliance for that group of emission points. This section also contains initial compliance demonstration procedures (other than testing) for owners or operators subject to §63.703 (c), (d)(1), (e)(1)(ii), (f)(1)(ii), and (g).

(1) A control device (not enclosure) used to comply with §63.703 (c), (e), or (f) does not need to be tested if each of the following criteria are met:

(i) It is used to control gaseous HAP emissions from an existing affected source;

(ii) It is operating prior to March 11, 1994;

(iii) It is equipped with continuous emission monitors for determining inlet and outlet total HAP or VOC concentration, such that a percent efficiency can be calculated; and

(iv) The continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.704(c)(3)(i).

(2) The owner or operator is not required to conduct an initial performance test if the requirements of § 63.7(e)(2)(iv) or § 63.7(h) are met.

(3) An owner or operator is not required to conduct an initial performance test for a capture device when:

(i) The room, enclosure, or vent was previously tested to demonstrate compliance with subpart SSS of part 60; and

(ii) Sufficient data were gathered during the test to establish operating parameter values in accordance with § 63.704(b)(6) (i), (ii), and (iii).

(b) When an initial compliance demonstration is required by this subpart, the procedures in paragraphs (b)(1) through (b)(10) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) EPA Method 24 of appendix A of part 60 is used to determine the VOC content in coatings. If it is demonstrated to the satisfaction of the Administrator that plant coating formulation data are equivalent to EPA Method 24 results, formulation data may be used. In the event of any inconsistency between an EPA Method 24 test and an affected source's formulation data, the EPA Method 24 test will govern. For EPA Method 24, the coating sample must be a 1-liter sample taken into a 1-liter container at a location and time such that the sample will be representative of the coating applied to the base substrate (i.e., the sample shall include any dilution solvent or other VOC added during the manufacturing process). The container must be tightly sealed immediately after the sample is taken. Any solvent or other VOC added after the sample is taken must be measured and accounted for in the calculations that use EPA Method 24 results.

(2) Formulation data is used to determine the HAP content of coatings.

(3) Either EPA Method 18 or EPA Method 25A of appendix A of part 60, as appropriate to the conditions at the site, shall be used to determine HAP or VOC concentration of air exhaust streams as required by § 63.705(c). The owner or operator shall submit notice of the intended test method to the Administrator for approval along with the notification of the performance test required under § 63.7(b). Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in paragraphs (b)(3) (i) and (ii) of this section, the test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(i) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.705(c) (2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(ii) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.705(c) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(4) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(5) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(6) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(7) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(8) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(9) Wastewater analysis shall be conducted in accordance with paragraph (b)(9)(i) or (b)(9)(ii) of this section.

(i) Use Method 305 of 40 CFR part 63, appendix A and the equations in paragraphs (b)(9)(i) (A) and (B) of this section to determine the total VOHAP concentration of a wastewater stream.

(A) The following equation shall be used to calculate the VOHAP concentration of an individually speciated HAP.

$$C_i = \left(C_C * \frac{MW}{24.055} * \frac{P_i}{760} * \frac{293}{T_i} * t * L * 10^3 \right) / M_s$$

where:

C_i = VOHAP concentration of the individually-speciated organic HAP in the wastewater, parts per million by weight.

C_c = Concentration of the organic HAP (i) in the gas stream, as measured by Method 305 of appendix A of this part, parts per million by volume on a dry basis.

M_s = Mass of sample, from Method 305 of appendix A of this part, milligrams.

MW = Molecular weight of the organic HAP (i), grams per gram-mole.

24.055 = Ideal gas molar volume at 293° Kelvin and 760 millimeters of mercury, liters per gram-mole.

P_i = Barometric pressure at the time of sample analysis, millimeters mercury absolute.

760 = Reference or standard pressure, millimeters mercury absolute.

293 = Reference or standard temperature, °Kelvin.

T_i = Sample gas temperature at the time of sample analysis, °Kelvin.

t = Actual purge time, from Method 305 of appendix A of this part, minutes.

L = Actual purge rate, from Method 305 of appendix A of this part, liters per minute.

10^3 = Conversion factor, milligrams per gram.

(B) Total VOHAP concentration (stream) can be determined by summing the VOHAP concentrations of all individually speciated organic HAP in the wastewater.

$$C_{stream} = \sum_{i=1}^{n} C_i$$

where:

C_{stream} = Total VOHAP concentration of wastewater stream.

n = Number of individual organic HAP (i) in the wastewater stream.

C_i = VOHAP concentration of individual organic HAP (i) calculated according to the procedures in paragraph (b)(9)(i)(A) of this section.

(ii) Use a test method or results from a test method that measures organic HAP concentrations in the wastewater, and that has been validated according to section 5.1 or 5.3 of Method 301 of appendix A of this part. The specific requirement of Method 305 of appendix A of this part to collect the sample into polyethylene glycol would not be applicable.

(A) If measuring the total VOHAP concentration of the exit stream in accordance with §§ 63.703(g)(1)(ii) and 63.705(h)(2), the concentrations of the individual organic HAP measured in the water shall be corrected to their concentrations had they been measured by Method 305 of appendix A of this part. This is done by multiplying each concentration by the compound-specific fraction measured factor (F_M) listed in table 34 of 40 CFR part 63, subpart G.

(B) If measuring the total HAP concentration of an inlet and outlet wastewater stream to demonstrate compliance with § 63.703(g)(1)(i) and following the procedures of § 63.705(h)(3), the concentrations of the individual organic HAP measured in the water do not need to be corrected.

(10) EPA Method 22 of appendix A of part 60 is used to determine visible emissions. Visible emissions testing shall be conducted for a minimum of 6 minutes during a time when particulate HAP transfer, as defined in this subpart, is occurring.

(c) *Initial compliance demonstrations.* Except as stipulated in § 63.705(a), each owner or operator subject to the requirements of § 63.703(c) must demonstrate initial compliance with the requirements of this subpart by following the procedures of paragraphs

(c)(1), (2), (3), (4), (5), or (6) and paragraph (d) of this section, as applicable. Each owner or operator subject to §63.703(d), (e), (f), and (g) must demonstrate initial compliance with the requirements of this subpart by following the procedures of paragraphs (e), (f), (g), and (h) of this section, as appropriate.

(1) To demonstrate initial and continuous compliance with §63.703(c)(1), (c)(3), or (c)(4) when emissions from only the affected coating operations are controlled by a dedicated solvent recovery device, each owner or operator of the affected coating operation may perform a liquid-liquid HAP or VOC material balance over rolling 7-day periods in lieu of demonstrating compliance through the methods in paragraphs (c)(2), (c)(3), or (c)(4) of this section. Results of the material balances calculation performed to demonstrate initial compliance shall be submitted to the Administrator with the notification of compliance status required by §63.9(h) and §63.707(d). When demonstrating compliance by this procedure, §63.7(e)(3) of subpart A does not apply. The amount of liquid HAP or VOC applied and recovered shall be determined as discussed in paragraph (c)(1)(iii) of this section. The overall HAP or VOC emission reduction (R) is calculated using equation 1:

$$R = \frac{M_r}{\sum_{i=1}^{n}\left[W_{oi}M_{ci} - RS_i\right]} \times 100 \qquad \text{(Eq. 1)}$$

(i) The value of RS_i is zero unless the owner or operator submits the following information to the Administrator for approval of a measured RS_i value that is greater than zero:

(A) Measurement techniques; and

(B) Documentation that the measured value of RS_i exceeds zero.

(ii) The measurement techniques of paragraph (c)(1)(i)(A) of this section shall be submitted to the Administrator for approval with the notification of performance test required under §63.7(b).

(iii) Each owner or operator demonstrating compliance by the test method described in paragraph (c)(1) of this section shall:

(A) Measure the amount of coating applied at the coater;

(B) Determine the VOC or HAP content of all coating applied using the test method specified in §63.705(b) (1) or (2);

(C) Install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device that indicates the amount of HAP or VOC recovered by the solvent recovery device over rolling 7-day periods; the device shall be certified by the manufacturer to be accurate to within ±2.0 percent, and this certification shall be kept on record;

(D) Measure the amount of HAP or VOC recovered; and

(E) Calculate the overall HAP or VOC emission reduction (R) for rolling 7-day periods using Equation 1.

(iv) Compliance is demonstrated if the value of R is equal to or greater than the overall HAP control efficiency required by §63.703 (c)(1), (c)(3), or (c)(4).

(2) To demonstrate initial compliance with §63.703 (c)(1), (c)(2), (c)(3), or (c)(4) when affected HAP emission points are controlled by an emission control device other than a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures.

(i) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP or VOC emissions can be accurately determined by the applicable test methods and procedures specified in §63.705(b) (3) through (8).

(ii) Determine capture efficiency from the HAP emission points by capturing, venting, and measuring all HAP emissions from the HAP emission points. During a performance test, the owner or operator of affected HAP emission points located in an area with other gaseous emission sources not affected by this subpart shall isolate the affected HAP emission points from all other gaseous emission points by one of the following methods:

(A) Build a temporary total enclosure (see §63.702) around the affected HAP emission point(s); or

(B) Shut down all gaseous emission points not affected by this subpart and continue to exhaust fugitive emissions from the affected HAP emission points through any building ventilation system and other room exhausts such as drying ovens.

All ventilation air must be vented through stacks suitable for testing.

(iii) Operate the emission control device with all affected HAP emission points connected and operating.

(iv) Determine the efficiency (E) of the control device using equation 2:

$$E = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} - \sum_{j=1}^{p} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi}} \qquad \text{(Eq. 2)}$$

(v) Determine the efficiency (F) of the capture system using equation 3:

$$F = \frac{\sum_{i=1}^{n} Q_{di} C_{di}}{\sum_{i=1}^{n} Q_{di} C_{di} + \sum_{k=1}^{p} Q_{fk} C_{fk}} \qquad \text{(Eq. 3)}$$

(vi) For each HAP emission point subject to § 63.703, compliance is demonstrated if either of the following conditions are met:

(A) The product of (E) × (F) is equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4); or

(B) When the owner or operator is subject to § 63.703(c)(2), the value of F is equal to 1 and the value of C_{aj} at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound, on a dry basis.

(3) To demonstrate compliance with § 63.703(c)(1), (c)(3), or (c)(4) when affected HAP emission points are controlled by a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures:

(i) Construct the overall HAP emission reduction system so that each volumetric flow rate and the total HAP emissions can be accurately determined by the applicable test methods and procedures specified in § 63.705(b)(3) through (8);

(ii) Assure that all HAP emissions from the affected HAP emission point(s) are segregated from gaseous emission points not affected by this subpart and that the emissions can be captured for measurement, as described in § 63.705(c)(2)(ii) (A) and (B);

(iii) Operate the emission control device with all affected HAP emission points connected and operating;

(iv) Determine the efficiency (H_v) of each individual carbon adsorber vessel (v) using equation 4:

$$H_v = \frac{Q_{gv} C_{gv} - Q_{hv} C_{hv}}{Q_{gv} C_{gv}} \qquad \text{(Eq. 4)}$$

(v) Determine the efficiency of the carbon adsorption system (H_{sys}) by computing the average efficiency of the individual carbon adsorber vessels as weighted by the volumetric flow rate (Q_{hv}) of each individual carbon adsorber vessel (v) using equation 5:

$$H_{sys} = \frac{\sum_{v=1}^{q} H_v Q_{hv}}{\sum_{v=1}^{q} Q_{hv}} \qquad \text{(Eq. 5)}$$

(vi) Determine the efficiency (F) of the capture system using equation (3).

(vii) For each HAP emission point subject to § 63.703(c), compliance is demonstrated if the product of (H_{sys}) × (F) is equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4).

(4) An alternative method of demonstrating compliance with § 63.703(c)(1) through (c)(4) is the installation of a total enclosure around the affected HAP emission point(s) and the ventilation of all HAP emissions from the total enclosure to a control device with the efficiency or outlet concentration specified in paragraph (c)(4)(iii) of this section. If this method is selected, the compliance test methods described in paragraphs (c)(1), (c)(2), and (c)(3) of this section are not required. Instead,

each owner or operator of an affected source shall:

(i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in paragraphs (c)(4)(i) (A) through (D) of this section shall be considered a total enclosure. The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected HAP emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(A) Total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(B) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(C) Average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(*1*) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods and procedures specified in §63.705(b) (4) and (5); volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(*2*) Determine FV by equation 6:

$$FV = \frac{\sum_{j=1}^{n} Q_{out\ j} - \sum_{i=1}^{p} Q_{in\ i}}{\sum_{k=1}^{q} A_k} \qquad \text{(Eq. 6)}$$

(D) The air passing through all natural draft openings shall flow into the enclosure continuously. If FV is less than or equal to 9,000 meters per hour, the continuous inward flow of air shall be verified by continuous observation using smoke tubes, streamers, tracer gases, or other means approved by the Administrator over the period that the volumetric flow rate tests required to determine FV are carried out. If FV is greater than 9,000 meters per hour, the direction of airflow through the natural draft openings shall be presumed to be inward at all times without verification.

(ii) Determine the control device efficiency using equation (2) or equations (4) and (5), as applicable, and the test methods and procedures specified in §63.705(b) (3) through (8).

(iii) Be in compliance if either of the following criteria are met:

(A) The installation of a total enclosure is demonstrated and the value of E determined from equation (2) (or the value of H_{sys} determined from equations (4) and (5), as applicable) is equal to or greater than the overall HAP control efficiency required by §63.703 (c)(1), (c)(3), or (c)(4); or

(B) When the owner or operator is subject to §63.703(c)(2), the installation of a total enclosure is demonstrated and the value of C_{aj} at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound, on a dry basis.

(5) To demonstrate initial and continuous compliance with §63.703(c)(5), each owner or operator of an affected source shall determine the mass of HAP contained in the coating per volume of coating solids applied for each batch of coating applied, according to the procedures of paragraphs (c)(5) (i) through (iii) of this section. If a batch of coating is identical to a previous batch of coating applied, the original

calculations can be used to demonstrate the compliance of subsequent identical batches. The calculation of the HAP content of the coating used to demonstrate initial compliance with §63.703(c)(5) shall be submitted to the Administrator with the notification of compliance status required by §63.9(h) and §63.707(e). When demonstrating compliance by this procedure, §63.7(e)(3) of subpart A does not apply.

(i) Determine the weight fraction of HAP in each coating applied using formulation data as specified in §63.705(b)(2);

(ii) Determine the volume of coating solids in each coating applied from the facility records; and

(iii) Compute the mass of HAP per volume of coating solids by equation 7:

$$G = \frac{W_{oi} M_{ci}}{L_{si} V_{ci}} \qquad \text{(Eq. 7)}$$

(iv) The owner or operator of an affected source is in compliance with §63.703(c)(5) if the value of G is less than or equal to 0.18 kilogram of HAP per liter of coating solids applied.

(6) When nonregenerative carbon adsorbers are used to comply with §63.703(c)(1), the owner or operator may conduct a design evaluation to demonstrate initial compliance in lieu of following the compliance test procedures of paragraph (c) (1), (2), (3), or (4) of this section. The design evaluation shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature, and shall establish the design exhaust vent stream organic compound concentration level, capacity of the carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and the emission point operating schedule.

(d)(1) To demonstrate initial compliance with §63.703(c) when hard piping or ductwork is used to direct HAP emissions from a HAP source to the control device, each owner or operator shall demonstrate upon inspection that the criteria of paragraph (d)(1)(i) and paragraph (d)(1) (ii) or (iii) are met.

(i) The equipment must be vented to a control device.

(ii) The control device efficiency (E or H_{sys}, as applicable) determined using equation (2) or equations (4) and (5), respectively, and the test methods and procedures specified in §63.705(b) (3) through (8), must be equal to or greater than the overall HAP control efficiency required by §63.703 (c)(1), (c)(3), or (c)(4), or the outlet concentration must be no greater than 20 ppmv by compound, on a dry basis, as required by §63.703(c)(2).

(iii) When a nonregenerative carbon adsorber is used, the ductwork from the affected emission point(s) must be vented to the control device and the carbon adsorber must be demonstrated, through the procedures of §63.705(c) (1), (2), (3), (4), or (6) to meet the requirements of §63.703(c)(1).

(2) To demonstrate initial compliance with provisions for mix preparation equipment, owners or operators shall, in addition to paragraph (d)(1) of this section, ensure that covers are closed at all times except when adding ingredients, withdrawing samples, transferring the contents, or making visual inspection when such activities cannot be carried out with the cover in place. Such activities shall be carried out through ports of the minimum practical size.

(e) To demonstrate initial compliance with §63.703(e), the owner or operator of a wash sink subject to the provisions of this standard shall:

(1) If complying with §63.703(e)(1)(ii), maintain at least the required minimum freeboard ratio at all times; or

(2) If complying with §63.703(e)(1)(i), the owner or operator of an existing wash sink that vents emissions from the wash sink to a control device prior to March 11, 1994 must demonstrate

that the control device is at least 95-percent efficient in accordance with § 63.705(c) (2), (3), (4), or (6); or

(3) If complying with § 63.703(e)(1)(i), each owner or operator that vents emissions from the wash sink, through a capture device, and to a control device starting on or after March 11, 1994, must demonstrate that the overall HAP control efficiency is at least 88 percent using the test methods and procedures in § 63.705(c) (2), (3), (4), or (6).

(f) To demonstrate initial compliance with § 63.703(f), the owner or operator shall:

(1) If complying with § 63.703(f)(1)(ii), install and use a closed system for flushing fixed lines; or

(2) If complying with § 63.703(f)(1)(i), each owner or operator that vents emissions from the flushing operation, through a capture device, and to a control device must demonstrate that the overall HAP control efficiency is at least 95 percent using the test methods and procedures in § 63.705(c) (2), (3), (4), or (6).

(g) To demonstrate initial compliance with § 63.703(d), the owner or operator shall:

(1) If complying with § 63.703(d)(1), install an enclosed transfer device for conveying particulate HAP, and use this device, following manufacturer's specifications or other written procedures developed for the device; or

(2) If complying with § 63.703(d)(2):

(i) Test the baghouse or fabric filter to demonstrate that there are no visible emissions using the test method in § 63.705(b)(10); and

(ii) provide engineering calculations in accordance with § 63.707(h) of this subpart with the performance test results required by § 63.7(g)(1) and § 63.9(h) of subpart A, to demonstrate that the ventilation rate from the particulate transfer activity to the control device is sufficient for capturing the particulate HAP.

(h) To demonstrate initial compliance with § 63.703(g), the owner or operator of an affected source shall follow the compliance procedures of either paragraph (h)(1), paragraph (h)(2), or paragraph (h)(3) of this section.

(1) The owner or operator shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) and § 63.707(f) the design specifications demonstrating that the control technique meets the required efficiency for each HAP compound. For steam strippers, these specifications shall include at a minimum: feed rate, steam rate, number of theoretical trays, number of actual trays, feed composition, bottoms composition, overheads composition, and inlet feed temperature.

(2) The owner or operator shall demonstrate the compliance of a treatment process with the parts per million by weight (ppmw) wastewater stream concentration limits specified in § 63.703(g)(1)(ii) by measuring the concentration of total VOHAP at the outlet of the treatment process using the method specified in § 63.705(b)(9) (i) or (ii). A minimum of three representative samples of the wastewater stream exiting the treatment process, which are representative of normal flow and concentration conditions, shall be collected and analyzed. Wastewater samples shall be collected using the sampling procedures specified in Method 25D of appendix A of part 60. Where feasible, samples shall be taken from an enclosed pipe prior to the wastewater being exposed to the atmosphere. When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner that minimizes exposure of the sample to the atmosphere and loss of organic HAP prior to analysis.

(3) The owner or operator shall demonstrate the compliance of a treatment process with the HAP fraction removed requirement specified in § 63.703(g)(1)(i) by measuring the concentration of each HAP at the inlet and outlet of the treatment process using the method specified in § 63.705(b)(9) (i) or (ii) and the procedures of paragraphs (h)(3) (i) through (iii) of this section.

(i) The same test method shall be used to analyze the wastewater samples from both the inlet and outlet of the treatment process.

(ii) The HAP mass flow rate of each individually speciated HAP compound entering the treatment process (E_b) and exiting the treatment process (E_a) shall be determined by computing the product of the flow rate of the wastewater

stream entering or exiting the treatment process, and the HAP concentration of each individual HAP compound of the entering or exiting wastewater streams, respectively.

(A) The flow rate of the entering and exiting wastewater streams shall be determined using inlet and outlet flow meters, respectively.

(B) The average HAP concentration of each individual HAP of the entering and exiting wastewater streams shall be determined according to the procedures specified in either paragraph (b)(9)(i)(A) or (b)(9)(ii)(B) of this section. If measuring the VOHAP concentration of an individual HAP in accordance with §63.705(b)(9)(i)(A), the concentrations of the individual organic VOHAP measured in the water shall be corrected to a HAP concentration by dividing each VOHAP concentration by the compound-specific fraction measured factor (F_M) listed in table 34 of 40 CFR part 63, subpart G.

(C) Three grab samples of the entering wastewater stream shall be taken at equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of three runs.

(D) Three grab samples of the exiting wastewater stream shall be taken at equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of three runs conducted over the same 3-hour period at which the total HAP mass flow rate entering the treatment process is determined.

(E) The HAP mass flow rates of each individual HAP compound entering and exiting the treatment process are calculated as follows:

$$E_b = \frac{K}{n \times 10^6}\left(\sum_{p=1}^{n} V_{bp} C_{bp}\right)$$

$$E_a = \frac{K}{n \times 10^6}\left(\sum_{p=1}^{n} V_{ap} C_{ap}\right)$$

where:

E_b = HAP mass flow rate of an individually speciated HAP compound entering the treatment process, kilograms per hour.

E_a = HAP mass flow rate of an individually speciated HAP compound exiting the treatment process, kilograms per hour.

K = Density of the wastewater stream, kilograms per cubic meter.

V_{bp} = Average volumetric flow rate of wastewater entering the treatment process during each run p, cubic meters per hour.

V_{ap} = Average volumetric flow rate of wastewater exiting the treatment process during each run p, cubic meters per hour.

C_{bp} = Average HAP concentration of an individually speciated HAP in the wastewater stream entering the treatment process during each run p, parts per million by weight.

C_{ap} = Average HAP concentration of an individually speciated HAP in the wastewater stream exiting the treatment process during each run p, parts per million by weight.

n = Number of runs.

(iii) The fraction removed across the treatment process for each individually speciated HAP compound shall be calculated as follows:

$$F_R = \frac{E_b - E_a}{E_b}$$

where:

F_R = Fraction removed for an individually speciated HAP compound of the treatment process.

E_b = HAP mass flow rate of an individually speciated HAP compound entering the treatment process, kilogram per hour.

E_a = HAP mass flow rate of an individually speciated HAP compound exiting the treatment process, kilograms per hour.

(i) Startups and shutdowns are normal operation for this source category. Emissions from these activities are to be included when determining if the standards specified in §63.703 are being attained.

(j) An owner or operator who uses compliance techniques other than those specified in this subpart shall submit a description of those compliance procedures, subject to the Administrator's approval, in accordance with §63.7(f) of subpart A.

§63.706 Recordkeeping requirements.

(a) Except as stipulated in §63.703 (b), (c)(5), and (h), the owner or operator of

a magnetic tape manufacturing operation subject to this subpart shall fulfill all applicable recordkeeping requirements in § 63.10 of subpart A, as outlined in Table 1.

(b) The owner or operator of an affected source subject to this subpart that is also subject to the requirements of § 63.703(e)(1)(ii) (a minimum freeboard ratio of 75 percent), shall record whether or not the minimum freeboard ratio has been achieved every time that HAP solvent is added to the wash sink. A measurement of the actual ratio is not necessary for each record as long as the owner or operator has a reliable method for making the required determination. For example, the record may be made by comparing the HAP solvent level to a permanent mark on the sink that corresponds to a 75 percent freeboard ratio. A HAP solvent level in the sink higher than the mark would indicate the minimum ratio has not been achieved.

(c) The owner or operator of an affected source subject to this subpart that is subject to the requirements of § 63.704(c)(10) shall:

(1) If complying with § 63.704(c)(10)(i), maintain hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating;

(2) If complying with § 63.704(c)(10)(ii), (iii), or (iv), maintain a record of monthly inspections, and the records of the times and durations of all periods when:

(i) Flow was diverted through any bypass line such that the seal mechanism was broken;

(ii) The key for a lock-and-key type lock had been checked out;

(iii) The valve position on any bypass line changed to the open position; or

(iv) The diversion of flow through any bypass line caused a shutdown of HAP-emitting operations.

(d) The owner or operator of an affected source that is complying with § 63.703(c) by performing a material balance in accordance with § 63.705(c)(1) shall:

(1) Maintain a record of each 7-day rolling average calculation; and

(2) Maintain a record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered.

(e) The owner or operator of a magnetic tape manufacturing operation subject to the provisions of § 63.703 (b) and (h) shall maintain records of the calculations used to determine the limits on the amount of HAP utilized as specified in § 63.703(b)(2), and of the HAP utilized in each month and the sum over each 12-month period.

(f) The owner or operator of an affected source subject to the provisions of § 63.703(c)(5) shall keep records of the HAP content of each batch of coating applied as calculated according to § 63.705(c)(5), and records of the formulation data that support the calculations. When a batch of coating applied is identical to a previous batch applied, only one set of records is required to be kept.

(g) The owner or operator of an affected source that is complying with § 63.703(c)(1) through the use of a nonregenerative carbon adsorber and demonstrating initial compliance in accordance with § 63.705(c)(6) shall maintain records to support the outlet VOC or HAP concentration value or the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(h) In accordance with § 63.10(b)(1) of subpart A, the owner or operator of an affected source subject to the provisions of this subpart shall retain all records required by this subpart and subpart A for at least 5 years following their collection.

§ 63.707 Reporting requirements.

(a) Except as stipulated in § 63.703(b), (c)(5), and (h), the owner or operator of a magnetic tape manufacturing operation subject to this subpart shall fulfill all applicable reporting requirements in § 63.7 through § 63.10, as outlined in Table 1 to this subpart. These reports shall be submitted to the Administrator or delegated State.

(b) The owner or operator of an existing magnetic tape manufacturing operation subject to § 63.703(b) and (h) shall include the values of the limits on the

amount of HAP utilized as determined in § 63.703(b)(2), along with supporting calculations, in the initial notification report required by § 63.9(b).

(c) The owner or operator of a new magnetic tape manufacturing operation subject to § 63.703(h) shall include the values of the limits on the amount of HAP utilized as determined in § 63.703(b)(2), along with supporting calculations, and the amount of HAP expected to be utilized during the first consecutive 12-month period of operation in the initial notification report required by § 63.9(b).

(d) The owner or operator subject to § 63.703(c) and following the compliance provisions of § 63.705(c)(1) (material balance calculation) shall include with the notification of compliance status required by § 63.9(h) the results of the initial material balance calculation.

(e) The owner or operator subject to § 63.703(c)(5) and following the compliance provisions of § 63.705(c)(5) (low-HAP coating) shall include with the notification of compliance status required by § 63.9(h) the results of the initial low-HAP coating demonstration.

(f) The owner or operator subject to the provisions of § 63.703(g) and demonstrating compliance in accordance with § 63.705(h)(1) shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) the design specifications demonstrating that the control technique meets the required efficiency. For steam strippers, these specifications shall include at a minimum: feed rate, steam rate, number of theoretical trays, number of actual trays, feed composition, bottoms composition, overheads composition, and inlet feed temperature.

(g) The owner or operator of an affected source that is complying with § 63.703(c)(1) through the use of a nonregenerative carbon adsorber and demonstrating initial compliance in accordance with § 63.705(c)(6) shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) the design evaluation.

(h) The owner or operator of an affected source that is complying with § 63.703(d) through the use of a baghouse or fabric filter and demonstrating initial compliance in accordance with § 63.705(g)(2) shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) the engineering calculations that support the minimum ventilation rate needed to capture HAP particulates for delivery to the control device.

(i) Excess emissions and continuous monitoring system performance report and summary reports shall be submitted as required by § 63.10(e).

(1) The owner or operator of an affected source subject to § 63.704 shall include deviations of monitored values from the operating parameter values required by § 63.704(c) in the reports. In the case of exceedances, the report must also contain a description and timing of the steps taken to address the cause of the exceedance.

(2) The owner or operator of an affected source subject to § 63.703(c)(5) shall report the HAP content of each batch of coating applied as the monitored operating parameter value in the reports.

(3) The owner or operator of an affected source subject to § 63.703(e)(1)(ii) and maintaining a minimum freeboard ratio of 75 percent shall report violations of the standard (freeboard ratio is less than 75 percent) in the reports.

(4) The owner or operator of an affected source subject to § 63.704(c)(10) of this subpart shall include records of any time period and duration of time that flow was diverted from the control device, as well as the results of monthly inspections required by § 63.704(c)(10)(ii), (iii), and (iv) in the reports.

(5) The owner or operator of an affected source complying with § 63.703(c) by performing a material balance calculation in accordance with § 63.705(c)(1) shall report any exceedances of the standard, as demonstrated through the calculation, in the reports.

(j) The owner or operator of a magnetic tape manufacturing operation subject to the provisions of § 63.703(h) shall report the amount of HAP utilized in each 12-month period in an annual report to the Administrator according to the following schedule:

(1) For existing sources, the first report shall cover the 12-month period prior to the source's compliance date and shall be submitted to the Administrator no later than 30 days after the compliance date; and

(2) For new sources, the first report shall include the quantity of HAP that is expected to be utilized during the first 12 months of operation and shall be submitted to the Administrator no later than 30 days after the compliance date;

(3) Annual reports shall be submitted to the Administrator no later than 30 days after the last 12-month period included in the report; and

(4) A report shall also be submitted no later than 30 days after monthly records required to be maintained by §63.706(e) indicate that any limit on the amount of HAP utilized has been exceeded. The report shall indicate the amount by which the limit has been exceeded.

(k) The owner or operator establishing an alternate HAP outlet concentration limit in accordance with §§63.703(i) and 63.704(b)(11)(ii) shall:

(1) To support the proposed limit, submit the following within 180 days following completion of the performance test required by §63.7:

(i) The performance test or CEM data collected to establish the limit;

(ii) Records of when coating operations were down;

(iii) The rationale for the alternate proposed limit; and

(iv) A statement signed by a responsible official of the company that the control device was operated in accordance with good air pollution control practices and in the same manner it was operated to achieve compliance with the emission limitation for coating operations; and

(2) In the excess emissions and continuous monitoring system performance report and summary report required by §63.10(e)(3), include parameter or CEM data to demonstrate compliance or noncompliance with the alternate outlet HAP concentration established in accordance with §§63.703(i) and 63.704(b)(11)(ii) once the limit is approved.

§63.708 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§63.701 and 63.703.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37352, June 23, 2003]

TABLE 1 TO SUBPART EE OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EE

Reference	Applies to subpart EE	Comment
63.1(a)(1)	Yes	Additional terms defined in §63.702(a); when overlap between subparts A and EE occurs, subpart EE takes precedence.

Reference	Applies to subpart EE	Comment
63.1(a)(2)–(14)	Yes.	
63.1(b)(1)–(3)	Yes.	
63.1(c)(1)	Yes	Subpart EE specifies the applicability of each paragraph in subpart A to sources subject to subpart EE.
63.1(c)(2)	No	The applicability of §§63.701(a)(2) and 63.703 (b) and (h) to a source does not in and of itself make a source subject to part 70.
63.1(c)(4)–(5)	Yes.	
63.1(c)(6)	Yes.	
63.1(e)	Yes.	
63.2	Yes	Additional terms defined in §63.702(a); when overlap between subparts A and EE occurs, subpart EE takes precedence.
63.3	Yes	Units specific to subpart EE are defined in subpart EE.
63.4(a)(1)–(3)	Yes.	
63.4(a)(5)	Yes.	
63.4(b)	Yes.	
63.4(c)	Yes.	
63.5(a)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(3)–(6)	Yes.	
63.5(d)	Yes.	
63.5(e)	Yes.	
63.5(f)	Yes.	
63.6(a)	Yes.	
63.6(b)(1)–(5)	Yes.	
63.6(b)(7)	Yes.	
63.6(c)(1)–(2)	Yes.	
63.6(c)(5)	Yes.	
63.6(e)(1)–(2)	Yes.	
63.6(e)(3)	Yes	Owners or operators of affected sources subject to subpart EE do not need to address startups and shutdowns because the emission limitations apply during these times.
63.6(f)(1)	No	§63.701(f) of subpart EE specifies when the standards apply.
63.6(f)(2)(i)–(ii)	Yes.	
63.6(f)(2)(iii)	Yes	§63.705(a)(3) of subpart EE includes additional circumstances under which previous capture device demonstrations are acceptable to show compliance.
63.6(f)(2)(iv)–(v)	Yes.	
63.6(f)(3)	Yes.	
63.6(g)	Yes.	
63.6(h)(1)	No	§63.701(f) of subpart EE specifies when the standards apply.
63.6(h)(2)(i)	Yes.	
63.6(h)(2)(iii)	Yes.	
63.6(h)(4)	Yes	This requirement applies only for the visible emission test required under §63.705(g)(2).
63.6(h)(5)(i)–(iii)	Yes.	
63.6(h)(5)(v)	No.	
63.6(h)(6)	Yes.	
63.6(h)(7)	No.	
63.6(h)(8)	Yes.	
63.6(h)(9)	No.	
63.6(i)(1)–(14)	Yes	§63.703(c)(4) of subpart EE shall not be considered emissions averaging for the purposes of §63.6(i)(4)(i)(B).
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)(i)–(vi)	Yes.	
63.7(a)(2)(ix)	Yes.	
63.7(a)(3)	Yes.	
63.7(b)	Yes.	
63.7(c)	Yes.	
63.7(d)	Yes.	
63.7(e)	Yes	§63.7(e) establishes the minimum performance test requirements. This section does not preclude owners or operators from conducting multiple test runs under alternate operating conditions to establish an appropriate range of compliance operating parameter values in accordance with §63.704(b)(11)(i) of subpart EE. Also as required in §63.701(f) of subpart EE, the emissions standards apply during startup and shutdown.
63.7(f)	Yes.	
63.7(g)(1)	Yes.	
63.7(g)(3)	Yes.	
63.7(h)	Yes.	
63.8(a)(1)–(2)	Yes.	
63.8(a)(4)	Yes.	
63.8(b)(1)	Yes.	
63.8(b)(2)	No	§63.704 of subpart EE specifies monitoring locations; when multiple emission points are tied to one central control device, the monitors are located at the central control device.

Reference	Applies to subpart EE	Comment
63.8(b)(3)	Yes.	
63.8(c)(1)–(3)	Yes.	
63.8(c)(4)	Yes	Provisions related to COMS, however, do not apply.
63.8(c)(5)	No.	
63.8(c)(6)–(8)	Yes.	
63.8(d)	Yes.	
63.8(e)	Yes.	
63.8(f)(1)–(6)	Yes.	
63.8(g)(1)–(5)	Yes.	
63.9(a)	Yes.	
63.9(b)	Yes.	
63.9(c)	Yes.	
63.9(d)	Yes.	
63.9(e)	Yes.	
63.9(f)	Yes.	
63.9(g)(1)	Yes.	
63.9(g)(2)	No.	
63.9(g)(3)	Yes.	
63.9(h)(1)–(3)	Yes.	
63.9(h)(5)–(6)	Yes.	
63.9(i)	Yes.	
63.9(j)	Yes.	
63.9(k)	Yes	Only as specified in § 63.9(j).
63.10(a)	Yes.	
63.10(b)(1)	Yes.	
63.10(b)(2)	Yes	Except information on startup and shutdown periods is not necessary because the standards apply during these time periods.
63.10(b)(3)	Yes.	
63.10(c)(1)	Yes.	
63.10(c)(5)–(8)	Yes	Except information on startup and shutdown periods is not necessary because the standards apply during these times.
63.10(c)(10)–(15)	Yes	Except information on startup and shutdown periods is not necessary because the standards apply during these times.
63.10(d)(1)–(2)	Yes.	
63.10(d)(3)	Yes	This requirement applies only for the visible emissions test required under § 63.705(g)(2). The results of visible emissions tests under § 63.704(e) shall be reported as required in § 63.10(e)(3).
63.10(d)(4)	Yes.	
63.10(d)(5)	Yes	Except information on startup and shutdown periods is not necessary because the standards apply during these times.
63.(10)(e)(1)	Yes.	
63.10(e)(2)(i)	Yes.	
63.10(e)(2)(ii)	No.	
63.10(e)(3)(i)–(v)	Yes.	
63.10(e)(3)(vi)–(viii)	Yes	Except emissions/CMS performance during startup and shutdown do not need to be specified because the standards apply during startup and shutdown.
63.10(e)(4)	No.	
63.10(f)	Yes.	
63.11–63.15	Yes.	

[59 FR 64596, Dec. 15, 1994, as amended at 85 FR 73894, Nov. 19, 2020; 85 FR 84262, Dec. 28, 2020]

Subpart FF [Reserved]

Subpart GG—National Emission Standards for Aerospace Manufacturing and Rework Facilities

SOURCE: 60 FR 45956, Sept. 1, 1996, unless otherwise noted.

§ 63.741 Applicability and designation of affected sources.

(a) This subpart applies to facilities that are engaged, either in part or in whole, in the manufacture or rework of commercial, civil, or military aerospace vehicles or components and that are major sources as defined in § 63.2.

(b) The owner or operator of an affected source shall comply with the requirements of this subpart and of subpart A of this part, except as specified in § 63.743(a) and Table 1 of this subpart.

(c) *Affected sources.* The affected sources to which the provisions of this subpart apply are specified in paragraphs (c)(1) through (8) of this section. The activities subject to this subpart are limited to the manufacture or rework of aerospace vehicles or components as defined in this subpart. Where a dispute arises relating to the applicability of this subpart to a specific activity, the owner or operator shall demonstrate whether or not the activity is regulated under this subpart.

(1) Each cleaning operation as follows:

(i) All hand-wipe cleaning operations constitute an affected source.

(ii) Each spray gun cleaning operation constitutes an affected source.

(iii) All flush cleaning operations constitute an affected source.

(2) For organic HAP or VOC emissions, each primer application operation, which is the total of all primer applications at the facility.

(3) For organic HAP or VOC emissions, each topcoat application operation, which is the total of all topcoat applications at the facility.

(4) For organic HAP or VOC emissions, each specialty coating application operation, which is the total of all specialty coating applications at the facility.

(5) For organic HAP or VOC emissions, each depainting operation, which is the total of all depainting at the facility.

(6) Each chemical milling maskant application operation, which is the total of all chemical milling maskant applications at the facility.

(7) Each waste storage and handling operation, which is the total of all waste handling and storage at the facility.

(8) For inorganic HAP emissions, each spray booth, portable enclosure, or hangar that contains a primer, topcoat, or specialty coating application operation subject to § 63.745(g), or a depainting operation subject to § 63.746(b)(4).

(d) An owner or operator of an affected source subject to this subpart shall obtain an operating permit from the permitting authority in the State in which the source is located. The owner or operator shall apply for and obtain such permit in accordance with the regulations contained in part 70 of this chapter and in applicable State regulations.

(e) [Reserved]

(f) This subpart does not regulate research and development, quality control, and laboratory testing activities, chemical milling, metal finishing, electrodeposition (except for electrodeposition of paints), composites processing (except for cleaning and coating of composite parts or components that become part of an aerospace vehicle or component as well as composite tooling that comes in contact with such composite parts or components prior to cure), electronic parts and assemblies (except for cleaning and topcoating of completed assemblies), manufacture of aircraft transparencies, and wastewater operations at aerospace facilities. These requirements do not apply to the rework of aircraft or aircraft components if the holder of the Federal Aviation Administration (FAA) design approval, or the holder's licensee, is not actively manufacturing the aircraft or aircraft components. These requirements also do not apply to parts and assemblies not critical to the vehicle's structural integrity or flight performance. The requirements of this subpart do not apply to primers, topcoats, specialty coatings, chemical milling maskants, strippers, and cleaning solvents that meet the definition of non-HAP material, as determined from manufacturer's representations, such as in a material safety data sheet or product data sheet, or testing, except that if an owner or operator chooses to include one or more non-HAP primer, topcoat, specialty coating, or chemical milling maskant in averaging under § 63.743(d), then the recordkeeping requirements of § 63.752(c)(4) shall apply. The requirements of this subpart also do not apply to primers, topcoats, and specialty coatings that meet the definition of ''classified national security information'' in § 63.742. Additional specific exemptions from regulatory coverage are set forth in paragraphs (e), (g), (h), (i) and (j) of this section and §§ 63.742, 63.744(a)(1), (b), (e), 63.745(a), (f)(3), (g)(4), 63.746(a), (b)(5), 63.747(c)(3), and 63.749(d).

(g) The requirements for primers, topcoats, specialty coatings, and chemical milling maskants in §§ 63.745 and 63.747 do not apply to the use of low-volume coatings in these categories for which the annual total of each separate formulation used at a facility does not exceed 189 l (50 gal), and the combined annual total of all such primers, topcoats, specialty coatings, and chemical milling maskants used at a facility does not exceed 757 l (200 gal). Primers, topcoats, and specialty coatings exempted under paragraph (f) of this section and under § 63.745(f)(3) and (g)(4) are not included in the 50 and 200 gal limits. Chemical milling maskants exempted under § 63.747(c)(3) are also not included in these limits.

(h) Regulated activities associated with space vehicles designed to travel beyond the limit of the earth's atmosphere, including but not limited to satellites, space stations, and the Space Shuttle System (including orbiter, external tanks, and solid rocket boosters), are exempt from the requirements of this subpart, except for depainting operations found in § 63.746.

(i) Any waterborne coating for which the manufacturer's supplied data demonstrate that organic HAP and VOC contents are less than or equal to the organic HAP and VOC content limits for its coating type, as specified in §§ 63.745(c) and 63.747(c), is exempt from the following requirements of this subpart: §§ 63.745 (d) and (e), 63.747(d) and (e), 63.749 (d) and (h), 63.750 (c) through (h) and (k) through (n), 63.752 (c) and (f), and 63.753 (c) and (e). A facility shall maintain the manufacturer's supplied data and annual purchase records for each exempt waterborne coating readily available for inspection and review and shall retain these data for 5 years.

(j) Regulated activities associated with the rework of antique aerospace vehicles or components are exempt from the requirements of this subpart.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15016, Mar. 27, 1998; 63 FR 46532, Sept. 1, 1998; 80 FR 76179, Dec. 7, 2015]

§ 63.742 Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Aerospace facility means any facility that produces, reworks, or repairs in any amount any commercial, civil, or military aerospace vehicle or component.

Aerospace vehicle or component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

Aircraft fluid systems means those systems that handle hydraulic fluids, fuel, cooling fluids, or oils.

Aircraft transparency means the aircraft windshield, canopy, passenger windows, lenses, and other components which are constructed of transparent materials.

Airless and air-assisted airless spray mean any coating spray application technology that relies solely on the fluid pressure of the coating to create an atomized coating spray pattern and does not apply any atomizing compressed air to the coating before it leaves the spray gun nozzle. Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized coating, but still uses fluid pressure to create the atomized coating.

Antique aerospace vehicle or component means an aircraft or component thereof that was built at least 30 years ago. An antique aerospace vehicle would not routinely be in commercial or military service in the capacity for which it was designed.

Carbon adsorber means one vessel in a series of vessels in a carbon adsorption system that contains carbon and is used to remove gaseous pollutants from a gaseous emission source.

Carbon Adsorber control efficiency means the total efficiency of the control system, determined by the product of the capture efficiency and the control device efficiency.

Chemical milling maskant means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or Type II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II

etchant. This definition does not include bonding maskants, critical use and line sealer maskants, and seal coat maskants. Additionally, maskants that must be used with a combination of Type I or II etchants and any of the above types of maskants (*i.e.*, bonding, critical use and line sealer, and seal coat) are also not included in this definition. (*See* also Type I and Type II etchant definitions.)

Chemical milling maskant application operation means application of chemical milling maskant for use with Type I or Type II chemical milling etchants.

Classified National Security Information means information that has been determined pursuant to Executive Order 13526, ''Classified National Security Information,'' December 29, 2009 or any successor order to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form. The term ''Classified Information'' is an alternative term that may be used instead of ''Classified National Security Information.''

Cleaning operation means collectively spray gun, hand-wipe, and flush cleaning operations.

Cleaning solvent means a liquid material used for hand-wipe, spray gun, or flush cleaning. This definition does not include solutions that contain HAP and VOC below the de minimis levels specified in § 63.741(f).

Closed-cycle depainting system means a dust-free, automated process that removes permanent coating in small sections at a time and maintains a continuous vacuum around the area(s) being depainted to capture emissions.

Coating means a material that is applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances; paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer; or preimpregnated composite sheets are not considered coatings for the purposes of this subpart. Materials in handheld non-refillable aerosol containers, touch-up markers, and marking pens are also not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means the use of a spray booth, tank, or other enclosure or any area, such as a hangar, for the application of a single type of coating (e.g., primer); the use of the same spray booth for the application of another type of coating (e.g., topcoat) constitutes a separate coating operation for which compliance determinations are performed separately.

Coating unit means a series of one or more coating applicators and any associated drying area and/or oven wherein a coating is applied, dried, and/or cured. A coating unit ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating. It is not necessary to have an oven or flashoff area in order to be included in this definition.

Confined space means a space that: (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; (2) has limited or restricted means for entry or exit (for example, fuel tanks, fuel vessels, and other spaces that have limited means of entry); and (3) is not suitable for continuous employee occupancy.

Control device means destruction and/or recovery equipment used to destroy or recover HAP or VOC emissions generated by a regulated operation.

Control system means a combination of pollutant capture system(s) and control device(s) used to reduce discharge to the atmosphere of HAP or VOC emissions generated by a regulated operation.

Depainting means the removal of a permanent coating from the outer surface of an aerospace vehicle or component, whether by chemical or non-chemical means. For non-chemical means, this definition excludes hand and mechanical sanding, and any other non-chemical removal processes that do not involve blast media or other mechanisms that would result in airborne particle movement at high velocity.

Depainting operation means the use of a chemical agent, media blasting, or any other technique to remove permanent coatings from the outer surface of an aerospace vehicle or components. The depainting operation includes washing of the aerospace vehicle or component to remove residual stripper, media, or coating residue.

Electrodeposition of paint means the application of a coating using a water-based electrochemical bath process. The component being coated is immersed in a bath of the coating. An electric potential is applied between the component and an oppositely charged electrode hanging in the bath. The electric potential causes the ionized coating to be electrically attracted, migrated, and deposited on the component being coated.

Electrostatic spray means a method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

Exempt solvent means specified organic compounds that have been determined by the EPA to have negligible photochemical reactivity and are listed in 40 CFR 51.100.

Exterior primer means the first layer and any subsequent layers of identically formulated coating applied to the exterior surface of an aerospace vehicle or component where the component is used on the exterior of the aerospace vehicle. Exterior primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent exterior topcoats. Coatings that are defined as specialty coatings are not included under this definition.

Flush cleaning means the removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component or coating equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item being cleaned and then drained, or be assisted by air or hydraulic pressure, or by pumping. Hand-wipe cleaning operations where wiping, scrubbing, mopping, or other hand action are used are not included.

General aviation (GA) means that segment of civil aviation that encompasses all facets of aviation except air carriers, commuters, and military. General aviation includes charter and corporate-executive transportation, instruction, rental, aerial application, aerial observation, business, pleasure, and other special uses.

General aviation rework facility means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion, or alteration of general aviation aerospace vehicles or components.

Hand-wipe cleaning operation means the removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component by physically rubbing it with a material such as a rag, paper, or cotton swab that has been moistened with a cleaning solvent.

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

High efficiency particulate air (HEPA) filter means a filter that has a 99.97 percent reduction efficiency for 0.3 micron aerosol.

High volume low pressure (HVLP) spray equipment means spray equipment that is used to apply coating by means of a spray gun that operates at 10.0 psig of atomizing air pressure or less at the air cap.

Inorganic hazardous air pollutant (HAP) means any HAP that is not organic.

Large commercial aircraft means an aircraft of more than 110,000 pounds, maximum certified take-off weight manufactured for non-military use.

Leak means any visible leakage, including misting and clouding.

Limited access space means internal surfaces or passages of an aerospace vehicle or component that cannot be reached without the aid of an airbrush or a spray gun extension for the application of coatings.

Mechanical sanding means aerospace vehicle or component surface conditioning which uses directional and random orbital abrasive tools and aluminum oxide or nylon abrasive pads for

the purpose of corrosion rework, substrate repair, prepaint surface preparation, and other maintenance activities.

Natural draft opening means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

Non-chemical based depainting equipment means any depainting equipment or technique, including, but not limited to, media blasting equipment, that can depaint an aerospace vehicle or component in the absence of a chemical stripper. This definition does not include mechanical sanding or hand sanding.

Non-HAP material means, for the purposes of this subpart, a primer, topcoat, specialty coating, chemical milling maskant, cleaning solvent, or stripper that contains no more than 0.1 percent by mass of any individual organic HAP that is an Occupational Safety and Health Administration-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

Nonregenerative carbon adsorber means a carbon adsorber vessel in which the spent carbon bed does not undergo carbon regeneration in the adsorption vessel.

Operating parameter value means a minimum or maximum value established for a control device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation.

Organic hazardous air pollutant (HAP) means any HAP that is organic.

Primer means the first layer and any subsequent layers of identically formulated coating applied to the surface of an aerospace vehicle or component. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent coatings. Coatings that are defined as specialty coatings are not included under this definition.

Radome means the non-metallic protective housing for electromagnetic transmitters and receivers (e.g., radar, electronic countermeasures, etc.).

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering chemicals for fuel value, use, or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators, or organic-water separators or organic removal devices such as decanters, strippers, or thin-film evaporation units.

Research and Development means an operation whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not involved in the manufacture of final or intermediate products for commercial purposes, except in a de mimnimis manner.

Self-priming topcoat means a topcoat that is applied directly to an uncoated aerospace vehicle or component for purposes of corrosion prevention, environmental protection, and functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component.

Semi-aqueous cleaning solvent means a solution in which water is a primary ingredient (″ 60 percent of the solvent solution as applied must be water.)

Softener means a liquid that is applied to an aerospace vehicle or component to degrade coatings such as primers, topcoats, and specialty coatings specifically as a preparatory step to subsequent depainting by non-chemical based depainting equipment. Softeners may contain VOC but shall not contain any HAP as determined from MSDS's or manufacturer supplied information.

Solids means the non-volatile portion of the coating which after drying makes up the dry film.

Space vehicle means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models,

mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons. Also included is auxiliary equipment associated with test, transport, and storage, which through contamination can compromise the space vehicle performance.

Specialty coating means a coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection. Individual specialty coatings are defined in appendix A to this subpart and in the CTG for Aerospace Manufacturing and Rework Operations (EPA 453/R–97–004).

Spot stripping means the depainting of an area where it is not technically feasible to use a non-chemical depainting technique.

Spray-applied coating operation means coatings that are applied using a device that creates an atomized mist of coating and deposits the coating on a substrate. For the purposes of this subpart, spray-applied coatings do not include the following materials or activities:

(1) Coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters) in which no more than 3.0 fluid ounces of coating is applied in a single application (*i.e.,* the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component). Under this definition, the use of multiple small paint cups and the refilling of a small paint cup to spray apply more than 3.0 fluid ounces of a coating is a spray-applied coating operation. Under this definition, the use of a paint cup liner in a reusable holder or cup that is designed to hold a liner with a capacity of more than 3.0 fluid ounces is a spray-applied coating operation.

(2) Application of coating using powder coating, hand-held non-refillable aerosol containers, or non-atomizing application technology, including but not limited to paint brushes, rollers, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, marking pens, trowels, spatulas, daubers, rags, sponges, mechanically and/or pneumatic-driven syringes, and inkjet machines.

(3) Application of adhesives, sealants, maskants, caulking materials, and inks.

Spray gun means a device that atomizes a coating or other material and projects the particulates or other material onto a substrate.

Stripper means a liquid that is applied to an aerospace vehicle or component to remove permanent coatings such as primers, topcoats, and specialty coatings.

Surface preparation means the removal of contaminants from the surface of an aerospace vehicle or component, or the activation or reactivation of the surface in preparation for the application of a coating.

Temporary total enclosure means a total enclosure that is constructed for the sole purpose of measuring the emissions from an affected source that are not delivered to an emission control device. A temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent emission capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it conforms to the requirements found in § 63.750(g)(4) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the Administrator for approval of a temporary enclosure on a case-by-case basis.

Topcoat means a coating that is applied over a primer on an aerospace vehicle or component for appearance, identification, camouflage, or protection. Coatings that are defined as specialty coatings are not included under this definition.

Total enclosure means a permanent structure that is constructed around a

gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100% capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure must be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. An enclosure that meets the requirements found in § 63.750(g)(4) is a permanent total enclosure.

Touch-up and repair operation means that portion of the coating operation that is the incidental application of coating used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence or out-of-cycle coating.

Two-stage filter system means a dry particulate filter system using two layers of filter media to remove particulate. The first stage is designed to remove the bulk of the particulate and a higher efficiency second stage is designed to remove smaller particulate.

Type I etchant means a chemical milling etchant that contains varying amounts of dissolved sulfur and does not contain amines.

Type II etchant means a chemical milling etchant that is a strong sodium hydroxide solution containing amines.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100. This includes any organic compound other than those determined by the EPA to be an exempt solvent. For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds that are exempt solvent, an owner or operator may exclude these exempt solvents when determining compliance with an emission standard.

Waterborne (water-reducible) coating means any coating that contains more than 5 percent water by weight as applied in its volatile fraction.

Waterwash system means a control system that utilizes flowing water (i.e., a conventional waterwash system) or a pumpless system to remove particulate emissions from the exhaust air stream in spray coating application or dry media blast depainting operations.

Nomenclature for determining carbon adsorber efficiency—The nomenclature defined below is used in § 63.750(g):

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_{aj} = the concentration of HAP or VOC in each gas stream (j) exiting the emission control device, in parts per million by volume.

(3) C_{bi} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device, in parts per million by volume.

(4) C_{di} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device from the affected source, in parts per million by volume.

(5) C_{fk} = the concentration of HAP or VOC in each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(6) C_{gv} = the concentration of HAP or VOC in each uncontrolled gas stream entering each individual carbon adsorber vessel (v), in parts per million by volume. For the purposes of calculating the efficiency of the individual carbon adsorber vessel, C_{gv} may be measured in the carbon adsorption system's common inlet duct prior to the branching of individual inlet ducts to the individual carbon adsorber vessels.

(7) C_{hv} = the concentration of HAP or VOC in the gas stream exiting each individual carbon adsorber vessel (v), in parts per million by volume.

(8) E = the control device efficiency achieved for the duration of the emission test (expressed as a fraction).

(9) F = the HAP or VOC emission capture efficiency of the HAP or VOC capture system achieved for the duration of the emission test (expressed as a fraction).

(10) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(11) H_v = the individual carbon adsorber vessel (v) efficiency achieved for the duration of the emission test (expressed as a fraction).

(12) H_{sys} = the efficiency of the carbon adsorption system calculated when each carbon adsorber vessel has an individual exhaust stack (expressed as a fraction).

(13) M_{ci} = the total mass in kilograms of each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7 to 30-day period, as appropriate, as determined from records at the affected source. This quantity shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the mass of the coating has been determined, appropriate adjustments shall be made to account for them.

(14) M_r = the total mass in kilograms of HAP or VOC recovered for a 7 to 30-day period.

(15) Q_{aj} = the volumetric flow rate of each gas stream (j) exiting the emission control device in either dry standard cubic meters per hour when EPA Method 18 in appendix A of part 60 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(16) Q_{bi} = the volumetric flow rate of each gas stream (i) entering the emission control device, in dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(17) Q_{di} = the volumetric flow rate of each gas stream (i) entering the emission control device from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(18) Q_{fk} = the volumetric flow rate of each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(19) Q_{gv} = the volumetric flow rate of each gas stream entering each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration. For purposes of calculating the efficiency of the individual carbon adsorber vessel, the value of Q_{gv} can be assumed to equal the value of Q_{hv} measured for that carbon adsorber vessel.

(20) Q_{hv} = the volumetric flow rate of each gas stream exiting each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(21) Q_{ini} = the volumetric flow rate of each gas stream (i) entering the total enclosure through a forced makeup air duct in standard cubic meters per hour (wet basis).

(22) Q_{outj} = the volumetric flow rate of each gas stream (j) exiting the total enclosure through an exhaust duct or hood in standard cubic meters per hour (wet basis).

(23) R = the overall HAP or VOC emission reduction achieved for the duration of the emission test (expressed as a percentage).

(24) RS_i = the total mass in kilograms of HAP or VOC retained in the coating after drying.

(25) W_{oi} = the weight fraction of VOC in each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7- to 30-day

period, as appropriate, as determined by EPA Method 24 or formulation data. This value shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the weight fraction of HAP or VOC in the coating has been determined, appropriate adjustments shall be made to account for them.

[60 FR 45956, Sept. 1, 1995, as amended at 63 FR 15017, Mar. 27, 1998; 63 FR 46533, Sept. 1, 1998; 65 FR 76945, Dec. 8, 2000; 80 FR 76179, Dec. 7, 2015]

§ 63.743 Standards: General.

(a) Except as provided in paragraphs (a)(4) through (a)(10) of this section and in Table 1 of this subpart, each owner or operator of an affected source subject to this subpart is also subject to the following sections of subpart A of this part:

(1) § 63.4, Prohibited activities and circumvention;

(2) § 63.5, Preconstruction review and notification requirements; and

(3) § 63.6, Compliance with standards and maintenance requirements.

(4) For the purposes of this subpart, all affected sources shall submit any request for an extension of compliance not later than 120 days before the affected source's compliance date. The extension request should be requested for the shortest time necessary to attain compliance, but in no case shall exceed 1 year.

(5)(i) For the purposes of this subpart, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of his/her intention to deny approval of a request for an extension of compliance submitted under either § 63.6(i)(4) or § 63.6(i)(5) within 60 calendar days after receipt of sufficient information to evaluate the request.

(ii) In addition, for purposes of this subpart, if the Administrator does not notify the owner or operator in writing of his/her intention to deny approval within 60 calendar days after receipt of sufficient information to evaluate a request for an extension of compliance, then the request shall be considered approved.

(6)(i) For the purposes of this subpart, the Administrator (or the State) will notify the owner or operator in writing of the status of his/her application submitted under § 63.6(i)(4)(ii) (that is, whether the application contains sufficient information to make a determination) within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted, rather than 15 calendar days as provided for in § 63.6(i)(13)(i).

(ii) In addition, for the purposes of this subpart, if the Administrator does not notify the owner or operator in writing of the status of his/her application within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted, then the information in the application or the supplementary information is to be considered sufficient upon which to make a determination.

(7) For the purposes of this subpart, each owner or operator who has submitted an extension request application under § 63.6(i)(5) is to be provided 30 calendar days to present additional information or arguments to the Administrator after he/she is notified that the application is not complete, rather than 15 calendar days as provided for in § 63.6(i)(13)(ii).

(8) For the purposes of this subpart, each owner or operator is to be provided 30 calendar days to present additional information to the Administrator after he/she is notified of the intended denial of a compliance extension request submitted under either § 63.6(i)(4) or § 63.6(i)(5), rather than 15 calendar days as provided for in § 63.6(i)(12)(iii)(B) and § 63.6(i)(13)(iii)(B).

(9) For the purposes of this subpart, a final determination to deny any request for an extension submitted under either § 63.6(i)(4) or § 63.6(i)(5) will be made within 60 calendar days after presentation of additional information or argument (if the application is complete), or within 60 calendar days after the final date specified for the presentation if no presentation is made, rather than 30 calendar days as provided for in § 63.6(i)(12)(iv) and § 63.6(i)(13)(iv).

(10) For the purposes of compliance with the requirements of § 63.5(b)(4) of the General Provisions and this subpart, owners or operators of existing primer, topcoat, or specialty coating application operations and depainting operations who construct or reconstruct a spray booth or hangar that does not have the potential to emit 10 tons/yr or more of an individual inorganic HAP or 25 tons/yr or more of all inorganic HAP combined shall only be required to notify the Administrator of such construction or reconstruction on an annual basis. Notification shall be submitted on or before March 1 of each year and shall include the information required in § 63.5(b)(4) for each such spray booth or hangar constructed or reconstructed during the prior calendar year, except that such information shall be limited to inorganic HAP. No advance notification or written approval from the Administrator pursuant to § 63.5(b)(3) shall be required for the construction or reconstruction of such a spray booth or hangar unless the booth or hangar has the potential to emit 10 tons/yr or more of an individual inorganic HAP or 25 tons/yr or more of all inorganic HAP combined.

(b) [Reserved]

(c) An owner or operator who uses an air pollution control device or equipment not listed in this subpart shall submit a description of the device or equipment, test data verifying the performance of the device or equipment in controlling organic HAP and/or VOC emissions, as appropriate, and specific operating parameters that will be monitored to establish compliance with the standards to the Administrator for approval not later than 120 days prior to the compliance date.

(d) Instead of complying with the individual coating limits in §§ 63.745 and 63.747, a facility may choose to comply with the averaging provisions specified in paragraphs (d)(1) through (d)(6) of this section.

(1) Each owner or operator of a new or existing source shall use any combination of primers, topcoats (including self-priming topcoats), specialty coatings, Type I chemical milling maskants, or Type II chemical milling maskants such that the monthly volume-weighted average organic HAP and VOC contents of the combination of primers, topcoats, specialty coatings, Type I chemical milling maskants, or Type II chemical milling maskants, as determined in accordance with the applicable procedures set forth in § 63.750, complies with the specified content limits in §§ 63.745(c) and 63.747(c), unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(2) Averaging is allowed only for uncontrolled primers, topcoats (including self-priming topcoats), specialty coatings, Type I chemical milling maskants, or Type II chemical milling maskants.

(3) Averaging is not allowed between specialty coating types defined in appendix A to this subpart, or between the different types of coatings specified in paragraphs (d)(3)(i) through (vii) of this section.

(i) Primers and topcoats (including self-priming topcoats).

(ii) Type I and Type II chemical milling maskants.

(iii) Primers and chemical milling maskants.

(iv) Topcoats and chemical milling maskants.

(v) Primers and specialty coatings.

(vi) Topcoats and specialty coatings.

(vii) Chemical milling maskants and specialty coatings.

(4)—(5) [Reserved]

(6) Each averaging scheme shall be approved in advance by the permitting agency and adopted as part of the facility's title V permit.

(e) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not

limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15017, Mar. 27, 1998; 71 FR 20457, Apr. 20, 2006; 80 FR 76180, Dec. 7, 2015]

§ 63.744 Standards: Cleaning operations.

(a) *Housekeeping measures.* Each owner or operator of a new or existing cleaning operation subject to this subpart shall comply with the requirements in paragraphs (a)(1) through (4) of this section unless the cleaning solvent used is identified in Table 1 of this section or meets the definition of ''Non-HAP material'' in 63.742. The requirements of paragraphs (a)(1) through (4) of this section do not apply to spent cleaning solvents, and solvent-laden applicators that are subject to and handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC).

(1) Unless the owner or operator satisfies the requirements in paragraph (a)(4) of this section, place used solvent-laden cloth, paper, or any other absorbent applicators used for cleaning in bags or other closed containers. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.

(2) Unless the owner or operator satisfies the requirements in paragraph (a)(4) of this section, store fresh and spent cleaning solvents, except semi-aqueous solvent cleaners, used in aerospace cleaning operations in closed containers.

(3) Conduct the handling and transfer of cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent cleaning solvents in such a manner that minimizes spills.

(4) Demonstrate to the Administrator (or delegated State, local, or Tribal authority) that equivalent or better alternative measures are in place compared to the use of closed containers for the solvent-laden materials described in paragraph (a)(1) of this section, or the storage of solvents described in paragraph (a)(2) of this section.

(b) *Hand-wipe cleaning.* Each owner or operator of a new or existing hand-wipe cleaning operation (excluding cleaning of spray gun equipment performed in accordance with paragraph (c) of this section) subject to this subpart shall use cleaning solvents that meet one of the requirements specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section. Cleaning solvent solutions that contain HAP and VOC below the de minimis levels specified in § 63.741(f) are exempt from the requirements in paragraphs (b)(1), (b)(2), and (b)(3) of this section.

(1) Meet one of the composition requirements in Table 1 of this section;

(2) Have a composite vapor pressure of 45 mm Hg (24.1 in. H_2 O) or less at 20 °C (68 °F); or

(3) Demonstrate that the volume of hand-wipe solvents used in cleaning operations has been reduced by at least 60% from a baseline adjusted for production. The baseline shall be established as part of an approved alternative plan administered by the State. Demonstrate that the volume of hand-wipe cleaning solvents used in cleaning operations has been reduced by at least 60 percent from a baseline adjusted for production. The baseline shall be calculated using data from 1996 and 1997, or as otherwise agreed upon by the Administrator or delegated State Authority. The baseline shall be approved by the Administrator or delegated State Authority and shall be included as part of the facility's title V or part 70 permit.

(c) *Spray gun cleaning.* Each owner or operator of a new or existing spray gun cleaning operation subject to this subpart in which spray guns are used for the application of coatings or any other materials that require the spray guns to be cleaned shall use one or more of the techniques, or their equivalent, specified in paragraphs (c)(1)

through (c)(4) of this section. Spray gun cleaning operations using cleaning solvent solutions that contain HAP and VOC below the de minimis levels specified in §63.741(f) are exempt from the requirements in paragraphs (c)(1) through (c)(4) of this section.

(1)(i) Enclosed system. Clean the spray gun in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning shall consist of forcing solvent through the gun.

(ii) If leaks are found during the monthly inspection required in §63.751(a), repairs shall be made as soon as practicable, but no later than 15 days after the leak was found. If the leak is not repaired by the 15th day after detection, the cleaning solvent shall be removed, and the enclosed cleaner shall be shut down until the leak is repaired or its use is permanently discontinued.

(2) *Nonatomized cleaning.* Clean the spray gun by placing cleaning solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air is to be used. Direct the cleaning solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use.

(3) Disassembled spray gun cleaning. Disassemble the spray gun and clean the components by hand in a vat, which shall remain closed at all times except when in use. Alternatively, soak the components in a vat, which shall remain closed during the soaking period and when not inserting or removing components.

(4) *Atomizing cleaning.* Clean the spray gun by forcing the cleaning solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions.

(5) Cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems that can be programmed to spray into a closed container, shall be exempt from the requirements of paragraph (c) of this section.

(d) *Flush cleaning.* Each owner or operator of a flush cleaning operation subject to this subpart (excluding those in which Table 1 or semi-aqueous cleaning solvents are used) shall empty the used cleaning solvent each time aerospace parts or assemblies, or components of a coating unit (with the exception of spray guns) are flush cleaned into an enclosed container or collection system that is kept closed when not in use or into a system with equivalent emission control.

(e) *Exempt cleaning operations.* The following cleaning operations are exempt from the requirements of paragraph (b) of this section:

(1) Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;

(2) Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

(3) Cleaning and surface activation prior to adhesive bonding;

(4) Cleaning of electronic parts and assemblies containing electronic parts;

(5) Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;

(6) Cleaning of fuel cells, fuel tanks, and confined spaces;

(7) Surface cleaning of solar cells, coated optics, and thermal control surfaces;

(8) Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;

(9) Cleaning of metallic and nonmetallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;

(10) Cleaning of aircraft transparencies, polycarbonate, or glass substrates;

(11) Cleaning and cleaning solvent usage associated with research and development, quality control, and laboratory testing;

(12) Cleaning operations, using nonflamable liquids, conducted within five feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections; and

(13) Cleaning operations identified as essential uses under the Montreal Protocol for which the Administrator has allocated essential use allowances or exemptions in 40 CFR 82.4.

TABLE 1—COMPOSITION REQUIREMENTS FOR APPROVED CLEANING SOLVENTS

Cleaning solvent type	Composition requirements
Aqueous	Cleaning solvents in which water is the primary ingredient (≥80 percent of cleaning solvent solution as applied must be water). Detergents, surfactants, and bio-enzyme mixtures and nutrients may be combined with the water along with a variety of additives, such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93 °C (200 °F) (as reported by the manufacturer), and the solution must be miscible with water.
Hydrocarbon-based	Cleaners that are composed of photochemically reactive hydrocarbons and/or oxygenated hydrocarbons and have a maximum vapor pressure of 7 mm Hg at 20 °C (3.75 in. H_2O and 68 °F). These cleaners also contain no HAP.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15018, Mar. 27, 1998; 63 FR 46533, Sept. 1, 1998; 68 FR 37352, June 23, 2003; 80 FR 76181, Dec. 7, 2015]

§ 63.745 Standards: Primer, topcoat, and specialty coating application operations.

(a) Each owner or operator of a new or existing primer, topcoat, or specialty coating application operation subject to this subpart shall comply with the requirements specified in paragraph (c) of this section for those coatings that are uncontrolled (no control device is used to reduce organic HAP emissions from the operation), and in paragraph (d) of this section for those coatings that are controlled (organic HAP emissions from the operation are reduced by the use of a control device). Aerospace equipment that is no longer operational, intended for public display, and not easily capable of being moved is exempt from the requirements of this section.

(b) Each owner or operator shall conduct the handling and transfer of primers, topcoats, and specialty coatings to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(c) *Uncontrolled coatings—organic HAP and VOC content levels.* Each owner or operator shall comply with the organic HAP and VOC content limits specified in paragraphs (c)(1) through (6) of this section for those coatings that are uncontrolled.

(1) Organic HAP emissions from primers shall be limited to an organic HAP content level of no more than: 540 g/L (4.5 lb/gal) of primer (less water), as applied, for general aviation rework facilities; or 650 g/L (5.4 lb/gal) of exterior primer (less water), as applied, to large commercial aircraft components (parts or assemblies) or fully assembled, large commercial aircraft at existing affected sources that produce fully assembled, large commercial aircraft; or 350 g/L (2.9 lb/gal) of primer (less water), as applied.

(2) VOC emissions from primers shall be limited to a VOC content level of no more than: 540 g/L (4.5 lb/gal) of primer (less water and exempt solvents), as applied, for general aviation rework facilities; or 650 g/L (5.4 lb/gal) of exterior primer (less water and exempt solvents), as applied, to large commercial aircraft components (parts or assemblies) or fully assembled, large commercial aircraft at existing affected sources that produce fully assembled, large commercial aircraft; or 350 g/L (2.9 lb/gal) of primer (less water and exempt solvents), as applied.

(3) Organic HAP emissions from topcoats shall be limited to an organic HAP content level of no more than: 420 g/L (3.5 lb/gal) of coating (less water) as applied or 540 g/L (4.5 lb/gal) of coating

(less water) as applied for general aviation rework facilities. Organic HAP emissions from self-priming topcoats shall be limited to an organic HAP content level of no more than: 420 g/L (3.5 lb/gal) of self-priming topcoat (less water) as applied or 540 g/L (4.5 lb/gal) of self-priming topcoat (less water) as applied for general aviation rework facilities.

(4) VOC emissions from topcoats shall be limited to a VOC content level of no more than: 420 g/L (3.5 lb/gal) of coating (less water and exempt solvents) as applied or 540 g/L (4.5 lb/gal) of coating (less water and exempt solvents) as applied for general aviation rework facilities. VOC emissions from self-priming topcoats shall be limited to a VOC content level of no more than: 420 g/L (3.5 lb/gal) of self-priming topcoat (less water and exempt solvents) as applied or 540 g/L (4.5 lb/gal) of self-priming topcoat (less water) as applied for general aviation rework facilities.

(5) Organic HAP emissions from specialty coatings shall be limited to an organic HAP content level of no more than the HAP content limit specified in Table 1 of this section for each applicable specialty coating type.

(6) VOC emissions from specialty coatings shall be limited to a VOC content level of no more than the VOC content limit specified in Table 1 of this section for each applicable specialty coating type.

TABLE 1—SPECIALTY COATINGS—HAP AND VOC CONTENT LIMITS

Coating Type	HAP Limit g/L (lb/gallon) [1]	VOC Limit g/L (lb/gallon) [1]
Ablative Coating	600 (5.0)	600 (5.0)
Adhesion Promoter	890 (7.4)	890 (7.4)
Adhesive Bonding Primers: Cured at 250 °F or below	850 (7.1)	850 (7.1)
Adhesive Bonding Primers: Cured above 250 °F	1030 (8.6)	1030 (8.6)
Commercial Interior Adhesive	760 (6.3)	760 (6.3)
Cyanoacrylate Adhesive	1,020 (8.5)	1,020 (8.5)
Fuel Tank Adhesive	620 (5.2)	620 (5.2)
Nonstructural Adhesive	360 (3.0)	360 (3.0)
Rocket Motor Bonding Adhesive	890 (7.4)	890 (7.4)
Rubber-based Adhesive	850 (7.1)	850 (7.1)
Structural Autoclavable Adhesive	60 (0.5)	60 (0.5)
Structural Nonautoclavable Adhesive	850 (7.1)	850 (7.1)
Antichafe Coating	660 (5.5)	660 (5.5)
Bearing Coating	620 (5.2)	620 (5.2)
Caulking and Smoothing Compounds	850 (7.1)	850 (7.1)
Chemical Agent-Resistant Coating	550 (4.6)	550 (4.6)
Clear Coating	720 (6.0)	720 (6.0)
Commercial Exterior Aerodynamic Structure Primer	650 (5.4)	650 (5.4)
Compatible Substrate Primer	780 (6.5)	780 (6.5)
Corrosion Prevention System	710 (5.9)	710 (5.9)
Cryogenic Flexible Primer	645 (5.4)	645 (5.4)
Cryoprotective Coating	600 (5.0)	600 (5.0)
Dry Lubricative Material	880 (7.3)	880 (7.3)
Electric or Radiation-Effect Coating	800 (6.7)	800 (6.7)
Electrostatic Discharge and Electromagnetic Interference (EMI) Coating	800 (6.7)	800 (6.7)
Elevated-Temperature Skydrol-Resistant Commercial Primer	740 (6.2)	740 (6.2)
Epoxy Polyamide Topcoat	660 (5.5)	660 (5.5)
Fire-Resistant (interior) Coating	800 (6.7)	800 (6.7)
Flexible Primer	640 (5.3)	640 (5.3)
Flight-Test Coatings: Missile or Single Use Aircraft	420 (3.5)	420 (3.5)
Flight-Test Coatings: All Other	840 (7.0)	840 (7.0)
Fuel-Tank Coating	720 (6.0)	720 (6.0)
High-Temperature Coating	850 (7.1)	850 (7.1)
Insulation Covering	740 (6.2)	740 (6.2)
Intermediate Release Coating	750 (6.3)	750 (6.3)
Lacquer	830 (6.9)	830 (6.9)
Bonding Maskant	1,230 (10.3)	1,230 (10.3)
Critical Use and Line Sealer Maskant	1,020 (8.5)	1,020 (8.5)
Seal Coat Maskant	1,230 (10.3)	1,230 (10.3)
Metallized Epoxy Coating	740 (6.2)	740 (6.2)
Mold Release	780 (6.5)	780 (6.5)
Optical Anti-Reflective Coating	750 (6.3)	750 (6.3)
Part Marking Coating	850 (7.1)	850 (7.1)

TABLE 1—SPECIALTY COATINGS—HAP AND VOC CONTENT LIMITS—Continued

Coating Type	HAP Limit g/L (lb/gallon)[1]	VOC Limit g/L (lb/gallon)[1]
Pretreatment Coating	780 (6.5)	780 (6.5)
Rain Erosion-Resistant Coating	850 (7.1)	850 (7.1)
Rocket Motor Nozzle Coating	660 (5.5)	660 (5.5)
Scale Inhibitor	880 (7.3)	880 (7.3)
Screen Print Ink	840 (7.0)	840 (7.0)
Extrudable/Rollable/Brushable Sealant	280 (2.3)	280 (2.3)
Sprayable Sealant	600 (5.0)	600 (5.0)
Silicone Insulation Material	850 (7.1)	850 (7.1)
Solid Film Lubricant	880 (7.3)	880 (7.3)
Specialized Function Coating	890 (7.4)	890 (7.4)
Temporary Protective Coating	320 (2.7)	320 (2.7)
Thermal Control Coating	800 (6.7)	800 (6.7)
Wet Fastener Installation Coating	675 (5.6)	675 (5.6)
Wing Coating	850 (7.1)	850 (7.1)

[1] Coating limits for HAP are expressed in terms of mass (grams or pounds) of HAP per volume (liters or gallons) of coating less water. Coating limits for VOC are expressed in terms of mass (grams or pounds) of VOC per volume (liters or gallons) of coating less water and less exempt solvent.

(d) *Controlled coatings—control system requirements.* Each control system shall reduce the operation's organic HAP and VOC emissions to the atmosphere by 81% or greater, taking into account capture and destruction or removal efficiencies, as determined using the procedures in § 63.750(g) when a carbon adsorber is used and in § 63.750(h) when a control device other than a carbon adsorber is used.

(e) *Compliance methods.* Compliance with the organic HAP and VOC content limits specified in paragraphs (c)(1) through (6) of this section shall be accomplished by using the methods specified in paragraphs (e)(1) and (2) of this section either by themselves or in conjunction with one another.

(1) Use primers, topcoats (including self-priming topcoats), and specialty coatings with HAP and VOC content levels equal to or less than the limits specified in paragraphs (c)(1) through (6) of this section; or

(2) Use the averaging provisions described in § 63.743(d).

(f) *Application equipment.* Except as provided in paragraph (f)(3) of this section, each owner or operator of a new or existing primer, topcoat (including self-priming topcoat), or specialty coating application operation subject to this subpart in which any of the coatings contain organic HAP or VOC shall comply with the requirements specified in paragraphs (f)(1) and (f)(2) of this section.

(1) All spray applied primers, topcoats (including self-priming topcoats), and specialty coatings shall be applied using one or more of the spray application techniques specified in paragraphs (f)(1)(i) through (f)(1)(v) of this section.

(i) High volume low pressure (HVLP) spraying;

(ii) Electrostatic spray application;

(iii) Airless spray application;

(iv) Air-assisted airless spray application; or

(v) Any other coating spray application methods that achieve emission reductions or a transfer efficiency equivalent to or better than HVLP spray, electrostatic spray, airless spray, or air-assisted airless spray application methods as determined according to the requirements in § 63.750(i).

(2) All coating spray application devices used to apply primers, topcoats (including self-priming topcoats), or specialty coatings shall be operated according to company procedures, local specified operating procedures, and/or the manufacturer's specifications, whichever is most stringent, at all times. Spray application equipment modified by the facility shall maintain a transfer efficiency equivalent to HVLP spray, electrostatic spray, airless spray, or air-assisted airless spray application techniques.

(3) The following situations are exempt from the requirements of paragraph (f)(1) of this section:

(i) Any situation that normally requires an extension on the spray gun to properly reach limited access spaces;

(ii) The application of coatings that contain fillers that adversely affect atomization with HVLP spray guns;

(iii) The application of coatings that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.) and that the permitting agency has determined cannot be applied by any of the application methods specified in paragraph (f)(1) of this section;

(iv) The use of airbrush application methods for stenciling, lettering, and

other identification markings, and the spray application of no more than 3.0 fluid ounces of coating in a single application (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces under the requirements of this paragraph is prohibited. If a paint cup liner is used in a reusable holder or cup, then the holder or cup must be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. For example, a 3.0 ounce liner cannot be used in a holder that can also be used with a 6.0 ounce liner under the requirements of this paragraph;

(v) The use of hand-held non-refillable aerosol containers;

(vi) Touch-up and repair operations;

(vii) Adhesives, sealants, maskants, caulking materials, and inks; and

(viii) The application of coatings that contain less than 20 grams of VOC per liter of coating.

(g) *Inorganic HAP emissions.* Except as provided in paragraph (g)(4) of this section, each owner or operator of a new or existing primer, topcoat, or specialty coating application operation subject to this subpart in which any of the coatings that are spray-applied (as defined in §63.742) and contain inorganic HAP, shall comply with the applicable requirements in paragraphs (g)(1) through (3) of this section.

(1) Apply these coatings in a booth, hangar, or portable enclosure in which air flow is directed downward onto or across the part or assembly being coated and exhausted through one or more outlets.

(2) Control the air stream from this operation as follows:

(i) For existing sources, the owner or operator must choose one of the following:

(A) Before exhausting it to the atmosphere, pass the air stream through a dry particulate filter system certified using the methods described in §63.750(o) to meet or exceed the efficiency data points in Tables 2 and 3 of this section; or

TABLE 2—TWO-STAGE ARRESTOR; LIQUID PHASE CHALLENGE FOR EXISTING SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, μm
>90	>5.7
>50	>4.1
>10	>2.2

TABLE 3—TWO-STAGE ARRESTOR; SOLID PHASE CHALLENGE FOR EXISTING SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, μm
>90	>8.1
>50	>5.0
>10	>2.6

(B) Before exhausting it to the atmosphere, pass the air stream through a waterwash system that shall remain in operation during all coating application operations; or

(C) Before exhausting it to the atmosphere, pass the air stream through an air pollution control system that meets or exceeds the efficiency data points in Tables 2 and 3 of this section and is approved by the permitting authority.

(ii) For new sources, either:

(A) Before exhausting it to the atmosphere, pass the air stream through a dry particulate filter system certified using the methods described in §63.750(o) to meet or exceed the efficiency data points in Tables 4 and 5 of this section; or

TABLE 4—THREE-STAGE ARRESTOR; LIQUID PHASE CHALLENGE FOR NEW SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, μm
>95	>2.0
>80	>1.0
>65	>0.42

TABLE 5—THREE-STAGE ARRESTOR; SOLID PHASE CHALLENGE FOR NEW SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, μm
>95	>2.5
>85	>1.1
>75	>0.70

(B) Before exhausting it to the atmosphere, pass the air stream through

an air pollution control system that meets or exceeds the efficiency data points in Tables 4 and 5 of this section and is approved by the permitting authority.

(iii) Owners or operators of new sources that have commenced construction or reconstruction after June 6, 1994 but prior to October 29, 1996 may comply with the following requirements in lieu of the requirements in paragraph (g)(2)(ii) of this section:

(A) Pass the air stream through either a two-stage dry particulate filter system or a waterwash system before exhausting it to the atmosphere.

(B) If the primer, topcoat, or specialty coating contains chromium or cadmium, control shall consist of a HEPA filter system, three-stage filter system, or other control system equivalent to the three-stage filter system as approved by the permitting agency.

(iv) If a dry particulate filter system is used, the following requirements shall be met:

(A) Maintain the system in good working order;

(B) Install a differential pressure gauge across the filter banks;

(C) Continuously monitor the pressure drop across the filter and read and record the pressure drop once per shift, or install an interlock system that will automatically shut down the coating spray application system if the pressure drop exceeds or falls below the filter manufacturer's recommended limit(s); and

(D) Take corrective action when the pressure drop exceeds or falls below the filter manufacturer's recommended limit(s).

(v) If a conventional waterwash system is used, continuously monitor the water flow rate and read and record the water flow rate once per shift, or install an interlock system that will automatically shut down the coating spray application system if the water flow rate falls below or exceeds the limit(s) specified by the booth manufacturer or in locally prepared operating procedures. If a pumpless system is used, continuously monitor the booth parameter(s) that indicate performance of the booth per the manufacturer's recommendations to maintain the booth within the acceptable operating efficiency range and read and record the parameters once per shift, or install an interlock system that will automatically shut down the coating spray application system if the booth parameters are outside the parameter range in the manufacturer's recommendations.

(3) If the pressure drop across the dry particulate filter system, as recorded pursuant to §63.752(d)(1), is outside the limit(s) specified by the filter manufacturer or in locally prepared operating procedures, shut down the operation immediately and take corrective action. If the water path in the waterwash system fails the visual continuity/flow characteristics check, or the water flow rate recorded pursuant to §63.752(d)(2) exceeds the limit(s) specified by the booth manufacturer or in locally prepared operating procedures, or the booth manufacturer's or locally prepared maintenance procedures for the filter or waterwash system have not been performed as scheduled, shut down the operation immediately and take corrective action. The operation shall not be resumed until the pressure drop or water flow rate is returned within the specified limit(s).

(4) The requirements of paragraphs (g)(1) through (g)(3) of this section do not apply to the following:

(i) Touch-up of scratched surfaces or damaged paint;

(ii) Hole daubing for fasteners;

(iii) Touch-up of trimmed edges;

(iv) Coating prior to joining dissimilar metal components;

(v) Stencil operations performed by brush or air brush;

(vi) Section joining;

(vii) Touch-up of bushings and other similar parts;

(viii) Sealant detackifying;

(ix) Spray application of primers, topcoats, and specialty coatings in an area identified in a title V permit, where the permitting authority has determined that it is not technically feasible to spray apply coatings to the parts in a booth;

(x) The use of hand-held non-refillable aerosol containers; and

(xi) The spray application of no more than 3.0 fluid ounces of coating in a

single application (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces under the requirements of this paragraph is prohibited. If a paint cup liner is used in a reusable holder or cup, then the holder or cup must be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. For example, under the requirements of this paragraph, a 3.0 ounce liner cannot be used in a holder that can also be used with a 6.0 ounce liner.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15019, Mar. 27, 1998; 63 FR 46533, Sept. 1, 1998; 65 FR 76945, Dec. 8, 2000; 80 FR 76181, Dec. 7, 2015]

§ 63.746 Standards: Depainting operations.

(a) *Applicability*. Each owner or operator of a new or existing depainting operation subject to this subpart shall comply with the requirements in paragraphs (a)(1) through (a)(3) of this section, and with the requirements specified in paragraph (b) where there are no controls for organic HAP, or paragraph (c) where organic HAP are controlled using a control system. This section does not apply to an aerospace manufacturing or rework facility that depaints six or less completed aerospace vehicles in a calendar year.

(1) The provisions of this section apply to the depainting of the outer surface areas of completed aerospace vehicles, including the fuselage, wings, and vertical and horizontal stabilizers of the aircraft, and the outer casing and stabilizers of missiles and rockets. These provisions do not apply to the depainting of parts or units normally removed from the aerospace vehicle for depainting. However, depainting of wings and stabilizers is always subject to the requirements of this section regardless of whether their removal is considered by the owner or operator to be normal practice for depainting.

(2) Aerospace vehicles or components that are intended for public display, no longer operational, and not easily capable of being moved are exempt from the requirements of this section.

(3) The following depainting operations are exempt from the requirements of this section:

(i) Depainting of radomes; and

(ii) Depainting of parts, subassemblies, and assemblies normally removed from the primary aircraft structure before depainting.

(b)(1) *HAP emissions—non-HAP chemical strippers and technologies*. Except as provided in paragraphs (b)(2) and (b)(3) of this section, each owner or operator of a new or existing aerospace depainting operation subject to this subpart shall emit no organic HAP from chemical stripping formulations and agents or chemical paint softeners.

(2) Where non-chemical based equipment is used to comply with paragraph (b)(1) of this section, either in total or in part, each owner or operator shall operate and maintain the equipment according to the manufacturer's specifications or locally prepared operating procedures. During periods of malfunctions of such equipment, each owner or operator may use substitute materials during the repair period provided the substitute materials used are those available that minimize organic HAP emissions. In no event shall substitute materials be used for more than 15 days annually, unless such materials are organic HAP-free.

(3) Each owner or operator of a new or existing depainting operation shall not, on an annual average basis, use more than 26 gallons of organic HAP-containing chemical strippers or alternatively 190 pounds of organic HAP per commercial aircraft depainted; or more than 50 gallons of organic HAP-containing chemical strippers or alternatively 365 pounds of organic HAP per military aircraft depainted for spot stripping and decal removal.

(4) Each owner or operator of a new or existing depainting operation complying with paragraph (b)(2), that generates airborne inorganic HAP emissions from dry media blasting equipment, shall also comply with the requirements specified in paragraphs (b)(4)(i) through (b)(4)(v) of this section.

(i) Perform the depainting operation in an enclosed area, unless a closed-cycle depainting system is used.

(ii)(A) For existing sources, pass any air stream removed from the enclosed area or closed-cycle depainting system through a dry particulate filter system, certified using the method described in § 63.750(o) to meet or exceed the efficiency data points in Tables 2 and 3 of § 63.745, through a baghouse, or through a waterwash system before exhausting it to the atmosphere.

(B) For new sources, pass any air stream removed from the enclosed area or closed-cycle depainting system through a dry particulate filter system certified using the method described in § 63.750(o) to meet or exceed the efficiency data points in Tables 4 and 5 of § 63.745 or through a baghouse before exhausting it to the atmosphere.

(C) Owners or operators of new sources that have commenced construction or reconstruction after June 6, 1994 but prior to October 29, 1996 may comply with the following requirements in lieu of the requirements in paragraph (b)(4)(ii)(B) of this section:

(*1*) Pass the air stream through either a two-stage dry particulate filter system or a waterwash system before exhausting it to the atmosphere.

(*2*) If the coating being removed contains chromium or cadmium, control shall consist of a HEPA filter system, three-stage filter system, or other control system equivalent to the three-stage filter system as approved by the permitting agency.

(iii) If a dry particulate filter system is used, the following requirements shall be met:

(A) Maintain the system in good working order;

(B) Install a differential pressure gauge across the filter banks;

(C) Continuously monitor the pressure drop across the filter, and read and record the pressure drop once per shift; and

(D) Take corrective action when the pressure drop exceeds or falls below the filter manufacturer's recommended limits.

(iv) If a waterwash system is used, continuously monitor the water flow rate, and read and record the water flow rate once per shift.

(v) If the pressure drop, as recorded pursuant to § 63.752(e)(7), is outside the limit(s) specified by the filter manufacturer or in locally prepared operating procedures, whichever is more stringent, shut down the operation immediately and take corrective action. If the water path in the waterwash system fails the visual continuity/flow characteristics check, as recorded pursuant to § 63.752(e)(7), or the water flow rate, as recorded pursuant to § 63.752(d)(2), exceeds the limit(s) specified by the booth manufacturer or in locally prepared operating procedures, or the booth manufacturer's or locally prepared maintenance procedures for the filter or waterwash system have not been performed as scheduled, shut down the operation immediately and take corrective action. The operation shall not be resumed until the pressure drop or water flow rate is returned within the specified limit(s).

(5) Mechanical and hand sanding operations are exempt from the requirements in paragraph (b)(4) of this section.

(c) *Organic HAP emissions—organic HAP-containing chemical strippers.* Each owner or operator of a new or existing organic HAP-containing chemical stripper depainting operation subject to this subpart shall comply with the requirements specified in this paragraph.

(1) All organic HAP emissions from the operation shall be reduced by the use of a control system. Each control system that was installed before the effective date shall reduce the operations' organic HAP emissions to the atmosphere by 81 percent or greater, taking into account capture and destruction or removal efficiencies.

(2) Each control system installed on or after the effective date shall reduce organic HAP emissions to the atmosphere by 95 percent or greater. Reduction shall take into account capture and destruction or removal efficiencies, and may take into account the volume of chemical stripper used relative to baseline levels (e.g., the 95 percent efficiency may be achieved by controlling emissions at 81 percent efficiency with a control system and using 74 percent less stripper than in baseline

applications). The baseline shall be calculated using data from 1996 and 1997, which shall be on a usage per aircraft or usage per square foot of surface basis.

(3) The capture and destruction or removal efficiencies are to be determined using the procedures in § 63.750(g) when a carbon adsorber is used and those in § 63.750(h) when a control device other than a carbon adsorber is used.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15020, Mar. 27, 1998; 63 FR 46533, Sept. 1, 1998; 80 FR 76184, Dec. 7, 2015]

§ 63.747 Standards: Chemical milling maskant application operations.

(a) Each owner or operator of a new or existing chemical milling maskant operation subject to this subpart shall comply with the requirements specified in paragraph (c) of this section for those chemical milling maskants that are uncontrolled (no control device is used to reduce organic HAP emissions from the operation) and in paragraph (d) of this section for those chemical milling maskants that are controlled (organic HAP emissions from the operation are reduced by the use of a control device).

(b) Each owner or operator shall conduct the handling and transfer of chemical milling maskants to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(c) *Uncontrolled maskants—organic HAP and VOC content levels.* Each owner or operator shall comply with the organic HAP and VOC content limits specified in paragraphs (c)(1) and (c)(2) of this section for each chemical milling maskant that is uncontrolled.

(1) Organic HAP emissions from chemical milling maskants shall be limited to organic HAP content levels of no more than 622 grams of organic HAP per liter (5.2 lb/gal) of Type I chemical milling maskant (less water) as applied, and no more than 160 grams of organic HAP per liter (1.3 lb/gal) of Type II chemical milling maskant (less water) as applied.

(2) VOC emissions from chemical milling maskants shall be limited to VOC content levels of no more than 622 grams of VOC per liter (5.2 lb/gal) of Type I chemical milling maskant (less water and exempt solvents) as applied, and no more than 160 grams of VOC per liter (1.3 lb/gal) of Type II chemical milling maskant (less water and exempt solvents) as applied.

(3) The requirements of paragraphs (c)(1) and (c)(2) of this section do not apply to the following:

(i) Touch-up of scratched surfaces or damaged maskant; and

(ii) Touch-up of trimmed edges.

(d) *Controlled maskants—control system requirements.* Each control system shall reduce the operation's organic HAP and VOC emissions to the atmosphere by 81% or greater, taking into account capture and destruction or removal efficiencies, as determined using the procedures in § 63.750(g) when a carbon adsorber is used and in § 63.750(h) when a control device other than a carbon adsorber is used.

(e) *Compliance methods.* Compliance with the organic HAP and VOC content limits specified in paragraphs (c)(1) and (c)(2) of this section may be accomplished by using the methods specified in paragraphs (e)(1) and (e)(2) of this section either by themselves or in conjunction with one another.

(1) Use chemical milling maskants with HAP and VOC content levels equal to or less than the limits specified in paragraphs (c)(1) and (c)(2) of this section.

(2) Use the averaging provisions described in § 63.743(d).

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15021, Mar. 27, 1998]

§ 63.748 Standards: Handling and storage of waste.

(a) The owner or operator of each facility subject to this subpart that produces a waste that contains organic HAP from aerospace primer, topcoat, specialty coating, chemical milling maskant, or chemical depainting operations must be handled and stored as specified in paragraph (a)(1) or (a)(2) of this section. The requirements of paragraphs (a)(1) and (a)(2) of this section do not apply to spent wastes that contain organic HAP that are subject to and handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC).

(1) Conduct the handling and transfer of the waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(2) Store all waste that contains organic HAP in closed containers.

(b) [Reserved]

[80 FR 76184, Dec. 7, 2015]

§ 63.749 Compliance dates and determinations.

(a) *Compliance dates.* (1) Each owner or operator of an existing affected source subject to this subpart shall comply with the requirements of this subpart by September 1, 1998, except as specified in paragraphs (a)(2) and (3) of this section. Owners or operators of new affected sources subject to this subpart shall comply on the effective date or upon startup, whichever is later. In addition, each owner or operator shall comply with the compliance dates specified in § 63.6(b) and (c) as indicated in Table 1 to this subpart.

(2) Owners or operators of existing primer, topcoat, or specialty coating application operations and depainting operations who construct or reconstruct a spray booth or hangar must comply with the new source requirements for inorganic HAP specified in §§ 63.745(g)(2)(ii) and 63.746(b)(4) for that new spray booth or hangar upon startup. Such sources must still comply with all other existing source requirements by September 1, 1998.

(3) Each owner or operator of a specialty coating application operation or handling and storage of waste operation that begins construction or reconstruction after February 17, 2015, shall be in compliance with the requirements of this subpart on December 7, 2015, or upon startup, whichever is later. Each owner or operator of a specialty coating application operation or handling and storage of waste operation that is existing on February 17, 2015, shall be in compliance with the requirements of this subpart on or before December 7, 2018.

(b) *General.* Each facility subject to this subpart shall be considered in noncompliance if the owner or operator uses a control device, other than one specified in this subpart, that has not been approved by the Administrator, as required by § 63.743(c).

(c) *Cleaning operations.* Each cleaning operation subject to this subpart shall be considered in noncompliance if the owner or operator fails to institute and carry out the housekeeping measures required under § 63.744(a). Incidental emissions resulting from the activation of pressure release vents and valves on enclosed cleaning systems are exempt from this paragraph.

(1) *Hand-wipe cleaning.* An affected hand-wipe cleaning operation shall be considered in compliance when all hand-wipe cleaning solvents, excluding those used for hand cleaning of spray gun equipment under § 63.744(c)(3), meet either the composition requirements specified in § 63.744(b)(1) or the vapor pressure requirement specified in § 63.744(b)(2).

(2) *Spray gun cleaning.* An affected spray gun cleaning operation shall be considered in compliance when each of the following conditions is met:

(i) One of the four techniques specified in § 63.744 (c)(1) through (c)(4) is used;

(ii) The technique selected is operated according to the procedures specified in § 63.744 (c)(1) through (c)(4) as appropriate; and

(iii) If an enclosed system is used, monthly visual inspections are conducted and any leak detected is repaired within 15 days after detection. If the leak is not repaired by the 15th day after detection, the solvent shall be removed and the enclosed cleaner shall be shut down until the cleaner is repaired or its use is permanently discontinued.

(3) *Flush cleaning.* An affected flush cleaning operation shall be considered in compliance if the operating requirements specified in § 63.744(d) are implemented and carried out.

(d) *Organic HAP and VOC content levels—primer, topcoat, and specialty coating application operations*—(1) *Performance test periods.* For uncontrolled coatings that are not averaged, each 24 hours is considered a performance test. For compliant and non-compliant coatings that are averaged together, each 30-day period is considered a performance test, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program. When using a control device

other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When using a carbon adsorber, each rolling material balance period is considered a performance test.

(2) *Initial performance tests.* If a control device is used, each owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in paragraph § 63.745, unless a waiver is obtained under either § 63.7(e)(2)(iv) or § 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in §§ 63.7 and 63.750(g) for carbon adsorbers and in § 63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in paragraphs (d)(2)(i) through (d)(2)(vi) of this section shall be used in determining initial compliance with the provisions of this subpart for carbon adsorbers.

(i)(A) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.750(g) (2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(B) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(ii) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(iii) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(iv) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(v) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(vi) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(3) The primer application operation is considered in compliance when the conditions specified in paragraphs (d)(3)(i) through (d)(3)(iv) of this section, as applicable, and in paragraph (e) of this section are met. Failure to meet any one of the conditions identified in these paragraphs shall constitute noncompliance. The compliance demonstration for a primer may be based on the organic HAP content or the VOC content of the primer; demonstrating compliance with both the HAP content limit and the VOC content limit is not required. If a primer contains HAP solvents that are exempt from the definition of VOC in § 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance.

(i) For all uncontrolled primers, all values of H_i and H_a (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to the applicable HAP content limit in § 63.745(c)(1), and all values of G_i and G_a (as determined using the procedures specified in § 63.750(e) and (f)) are less than or equal to the applicable VOC content limit in § 63.745(c)(2).

(ii) If a control device is used:

(A) The overall control system efficiency, E_k, as determined using the procedures specified in § 63.750(g) for control systems containing carbon adsorbers and in § 63.750(h) for control systems with other control devices, is equal to or greater than 81% during the initial performance test and any subsequent performance test;

(B) If an incinerator other than a catalytic incinerator is used, the average combustion temperature for all 3-hour periods is greater than or equal to the average combustion temperature established under § 63.751(b)(11); and

(C) If a catalytic incinerator is used, the average combustion temperatures for all 3-hour periods are greater than or equal to the average combustion

temperatures established under § 63.751(b)(12).

(iii)(A) Uses an application technique specified in § 63.745 (f)(1)(i) through (f)(1)(viii), or

(B) Uses an alternative application technique, as allowed under § 63.745(f)(1)(ix), such that the emissions of both organic HAP and VOC for the implementation period of the alternative application method are less than or equal to the emissions generated using HVLP or electrostatic spray application methods as determined using the procedures specified in § 63.750(i).

(iv) Operates all application techniques in accordance with the manufacturer's specifications or locally prepared operating procedures, whichever is more stringent.

(4) The topcoat or specialty coating application operation is considered in compliance when the conditions specified in paragraphs (d)(4)(i) through (d)(4)(iv) of this section, as applicable, and in paragraph (e) of this section are met. Failure to meet any of the conditions identified in these paragraphs shall constitute noncompliance.

(i) The topcoat application operation is considered in compliance when the conditions specified in paragraph (d)(4)(i)(A) of this section are met. The specialty coating application operation is considered in compliance when the conditions specified in paragraph (d)(4)(i)(B) are met. The compliance demonstration for a topcoat or a specialty coating may be based on the organic HAP content or the VOC content of the coating; demonstrating compliance with both the HAP content limit and the VOC content limit is not required. If a topcoat or specialty coating contains HAP solvents that are exempt from the definition of VOC in § 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance.

(A) For all uncontrolled topcoats, all values of H_i and H_a (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to the applicable HAP content limit in § 63.745(c)(3), and all values of G_i and G_a (as determined using the procedures specified in § 63.750(e) and (f)) are less than or equal to the applicable VOC content limit in § 63.745(c)(4).

(B) For all uncontrolled specialty coatings, all values of H_i and H_a (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to the HAP content limits specified in Table 1 to § 63.745 for the applicable specialty coating types (less water) as applied, and all values of G_i and G_a (as determined using the procedures specified in § 63.750(e) and (f)) are less than or equal to the VOC content limits specified in Table 1 to § 63.745 for the applicable specialty coating types (less water and exempt solvents) as applied.

(ii) If a control device is used,

(A) The overall control system efficiency, E_k, as determined using the procedures specified in § 63.750(g) for control systems containing carbon adsorbers and in § 63.750(h) for control systems with other control devices, is equal to or greater than 81% during the initial performance test and any subsequent performance test;

(B) If an incinerator other than a catalytic incinerator is used, the average combustion temperature for all 3-hour periods is greater than or equal to the average combustion temperature established under § 63.751(b)(11); and

(C) If a catalytic incinerator is used, the average combustion temperatures for all 3-hour periods are greater than or equal to the average combustion temperatures established under § 63.751(b)(12).

(iii)(A) Uses an application technique specified in § 63.745(f)(1)(i) through (f)(1)(iv); or

(B) Uses an alternative application technique, as allowed under § 63.745(f)(1)(v), such that the emissions of both organic HAP and VOC for the implementation period of the alternative application method are less than or equal to the emissions generated using HVLP spray, electrostatic spray, airless spray, or air-assisted airless spray application methods, as determined using the procedures specified in § 63.750(i).

(iv) Operates all application techniques in accordance with the manufacturer's specifications or locally prepared operating procedures.

(e) *Inorganic HAP emissions—primer, topcoat, and specialty coating application operations.* For each primer, topcoat, or specialty coating application operation that emits inorganic HAP, the operation is in compliance when:

(1) It is operated according to the requirements specified in §63.745(g)(1) through (g)(3); and

(2) It is shut down immediately whenever the pressure drop or water flow rate is outside the limit(s) established for them and is not restarted until the pressure drop or water flow rate is returned within these limit(s), as required under §63.745(g)(3).

(f) *Organic HAP emissions—Depainting operations*—(1) *Performance test periods.* When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When a carbon adsorber is used, each rolling material balance period is considered a performance test. Each 24-hour period is considered a performance test period for determining compliance with §63.746(b)(1). For uncontrolled organic emissions from depainting operations, each calendar year is considered a performance test period for determining compliance with the HAP limits for organic HAP-containing chemical strippers used for spot stripping and decal removal.

(2) *Initial performance tests.* If a control device is used, each owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in §63.746(c), unless a waiver is obtained under either §63.7(e)(2)(iv) or §63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in §§63.7 and 63.750(g) for carbon adsorbers and in §63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in paragraphs (2)(i) through (2)(vi) of this section shall be used in determining initial compliance with the provisions of this subpart for carbon adsorbers.

(i)(A) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to §63.750(g)(2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(B) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to §63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(ii) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(iii) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(iv) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(v) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(vi) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(3) An organic HAP-containing chemical stripper depainting operation is considered in compliance when the conditions specified in paragraph (g)(3)(i) of this section are met.

(i) If a carbon adsorber (or other control device) is used, the overall control efficiency of the control system, as determined using the procedures specified in §63.750(g) (or other control device as determined using the procedures specified in §63.750(h)), is equal to or greater than 81% for control systems installed before the effective date, or equal to or greater than 95% for control systems installed on or after the effective date, during the initial performance test and all subsequent material balances (or performance tests, as appropriate).

(ii) For non-HAP depainting operations complying with §63.746(b)(1);

(A) For any spot stripping and decal removal, the value of C, as determined using the procedures specified in § 63.750(j), is less than or equal to 26 gallons of organic HAP-containing chemical stripper or 190 pounds of organic HAP per commercial aircraft depainted calculated on a yearly average; and is less than or equal to 50 gallons of organic HAP-containing chemical stripper or 365 pounds of organic HAP per military aircraft depainted calculated on a yearly average; and

(B) The requirements of § 63.746(b)(2) are carried out during malfunctions of non-chemical based equipment.

(g) *Inorganic HAP emissions—depainting operations.* Each depainting operation is in compliance when:

(1) The operating requirements specified in § 63.746(b)(4) are followed; and

(2) It is shut down immediately whenever the pressure drop or water flow rate is outside the limit(s) established for them and is not restarted until the pressure drop or water flow rate is returned within these limit(s), as required under § 63.746(b)(4)(v).

(h) *Chemical milling maskant application operations*—(1) *Performance test periods.* For uncontrolled chemical milling maskants that are not averaged, each 24-hour period is considered a performance test. For compliant and noncompliant chemical milling maskants that are averaged together, each 30-day period is considered a performance test, unless the permitting agency specifies a shorter period as part of an ambient ozone control program. When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When a carbon adsorber is used, each rolling material balance period is considered a performance test.

(2) *Initial performance tests.* If a control device is used, each owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in § 63.747(d), unless a waiver is obtained under either § 63.7(e)(2)(iv) or § 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in § 63.7 and § 63.750(g) for carbon adsorbers and in § 63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in paragraphs (h)(2) (i) through (vi) of this section shall be used in determining initial compliance with the provisions of this subpart for carbon adsorbers.

(i)(A) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.750(g) (2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(B) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(ii) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(iii) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(iv) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(v) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(vi) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(3) The chemical milling maskant application operation is considered in compliance when the conditions specified in paragraphs (i)(3)(i) and (ii) of this section are met. The compliance demonstration for a chemical milling maskant may be based on the organic HAP content or the VOC content of the chemical milling maskant; demonstrating compliance with both the

HAP content limit and the VOC content limit is not required. If a chemical milling maskant contains HAP solvents that are exempt from the definition of VOC in § 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance.

(i) For all uncontrolled chemical milling maskants, all values of H_i and H_a (as determined using the procedures specified in § 63.750 (k) and (l)) are less than or equal to 622 grams of organic HAP per liter (5.2 lb/gal) of Type I chemical milling maskant as applied (less water), and 160 grams of organic HAP per liter (1.3 lb/gal) of Type II chemical milling maskant as applied (less water). All values of G_i and G_a (as determined using the procedures specified in § 63.750 (m) and (n)) are less than or equal to 622 grams of VOC per liter (5.2 lb/gal) of Type I chemical milling maskant as applied (less water and exempt solvents), and 160 grams of VOC per liter (1.3 lb/gal) of Type II chemical milling maskant (less water and exempt solvents) as applied.

(ii) If a carbon adsorber (or other control device) is used, the overall control efficiency of the control system, as determined using the procedures specified in § 63.750(g) (or systems with other control devices as determined using the procedures specified in § 63.750(h)), is equal to or greater than 81% during the initial performance test period and all subsequent material balances (or performance tests, as appropriate).

(i) *Handling and storage of waste.* For those wastes subject to this subpart, failure to comply with the requirements specified in § 63.748 shall be considered a violation.

(j) 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. 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.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15021, Mar. 27, 1998; 80 FR 76184, Dec. 7, 2015; 81 FR 51116, Aug. 3, 2016]

§ 63.750 Test methods and procedures.

(a) *Composition determination.* Compliance with the hand-wipe cleaning solvent approved composition list specified in § 63.744(b)(1) for hand-wipe cleaning solvents shall be demonstrated using data supplied by the manufacturer of the cleaning solvent. The data shall identify all components of the cleaning solvent and shall demonstrate that one of the approved composition definitions is met.

(b) *Vapor pressure determination.* The composite vapor pressure of hand-wipe cleaning solvents used in a cleaning operation subject to this subpart shall be determined as follows:

(1) For single-component hand-wipe cleaning solvents, the vapor pressure shall be determined using MSDS or other manufacturer's data, standard engineering reference texts, or other equivalent methods.

(2) The composite vapor pressure of a blended hand-wipe solvent shall be determined by quantifying the amount of each organic compound in the blend using manufacturer's supplied data or a gas chromatographic analysis in accordance with ASTM E 260–91 or 96 (incorporated by reference—see § 63.14 of subpart A of this part) and by calculating the composite vapor pressure of the solvent by summing the partial pressures of each component. The vapor pressure of each component shall be determined using manufacturer's data, standard engineering reference texts, or other equivalent methods. The following equation shall be used to determine the composite vapor pressure:

$$PP_c = \sum_{i=1}^{n} \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \sum_{e=1}^{n} \frac{W_e}{MW_e} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

where:

W_i = Weight of the ''i''th VOC compound, grams.
W_w = Weight of water, grams.
W_e = Weight of non-HAP, nonVOC compound, grams.
MW_i = Molecular weight of the ''i''th VOC compound, g/g-mole.
MW_w = Molecular weight of water, g/g-mole.
MW_e = Molecular weight of exempt compound, g/g-mole.
PP_c = VOC composite partial pressure at 20 °C, mm Hg.
VP_i = Vapor pressure of the ''i''th VOC compound at 20 °C, mm Hg.

(c) *Organic HAP content level determination—compliant primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings complying with the primer, topcoat, or specialty coating organic HAP content limits specified in §63.745(c) without being averaged, the procedures in paragraphs (c)(1) through (3) of this section shall be used to determine the mass of organic HAP emitted per volume of coating (less water) as applied. As an alternative to the procedures in paragraphs (c)(1) through (3) of this section, an owner or operator may use the coating manufacturer's supplied data to demonstrate that organic HAP emitted per volume of coating (less water), as applied, is less than or equal to the applicable organic HAP limit specified in §63.745(c). Owners and operators that use the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating may add non-HAP solvent to those coatings provided that the owner or operator also maintains records of the non-HAP solvent added to the coating.

(1) For coatings that contain no exempt solvents, determine the total organic HAP content using manufacturer's supplied data or Method 24 of 40 CFR part 60, appendix A, to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

When Method 24 is used to determine the VOC content of water-reducible coatings, the precision adjustment factors in Reference Method 24 shall be used. If the adjusted analytical VOC content is less than the formulation solvent content, then the analytical VOC content should be set equal to the formulation solvent content.

(2) For each coating formulation as applied, determine the organic HAP weight fraction, water weight fraction (if applicable), and density from manufacturer's data. If the value for organic HAP weight fraction cannot be determined using the manufacturer's data, the owner or operator shall use Method 311 of 40 CFR part 63, appendix A, or submit an alternative procedure for determining the value for approval by the Administrator. If the values for water weight fraction (if applicable) and density cannot be determined using the manufacturer's data, the owner or operator shall submit an alternative procedure for determining their values for approval by the Administrator. Recalculation is required only when a change occurs in the coating formulation. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 311 analysis, compliance shall be based on the results from the Method 311 analysis.

(3) For each coating as applied, calculate the mass of organic HAP emitted per volume of coating (lb/gal) less water as applied using equations 1, 2, and 3:

$$V_{wi} = \frac{D_{ci} W_{wi}}{D_w} \qquad \text{Eq. 1}$$

where:

V_{wi} = volume (gal) of water in one gal of coating i.
D_{ci} = density (lb of coating per gal of coating) of coating i.
W_{wi} = weight fraction (expressed as a decimal) of water in coating i.
D_w = density of water, 8.33 lb/gal.

$$M_{Hi} = D_{ci} W_{Hi} \qquad \text{Eq. 2}$$

where:

M_{Hi} = mass (lb) of organic HAP in one gal of coating i.
D_{ci} = density (lb of coating per gal of coating) of coating i.
W_{Hi} = weight fraction (expressed as a decimal) of organic HAP in coating i.

$$H_i = \frac{M_{Hi}}{(1 - V_{wi})} \qquad \text{Eq. 3}$$

where:

H_i = mass of organic HAP emitted per volume of coating i (lb/gal) less water as applied.

M_{Hi} = mass (lb) of organic HAP in one gal of coating i.

V_{wi} = volume (gal) of water in one gal of coating i.

(d) *Organic HAP content level determination—averaged primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings that are averaged together in order to comply with the primer, topcoat, and specialty coating organic HAP content limits specified in § 63.745(c), the following procedure shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of coating (less water) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1)(i) Determine the total organic HAP weight fraction as applied of each coating. If any ingredients, including diluent solvent, are added to a coating prior to its application, the organic HAP weight fraction of the coating shall be determined at a time and location in the process after all ingredients have been added.

(ii) Determine the total organic HAP weight fraction of each coating as applied each month.

(A) If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the organic HAP content of the coating, the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

(B) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the organic HAP content of the coating, the total organic HAP weight fraction of the coating shall be redetermined.

(iii) Manufacturer's formulation data may be used to determine the total organic HAP content of each coating and any ingredients added to the coating prior to its application. If the total organic HAP content cannot be determined using the manufacturer's data, the owner or operator shall use Method 311 of 40 CFR part 63, appendix A for determining the total organic HAP weight fraction, or shall submit an alternative procedure for determining the total organic HAP weight fraction for approval by the Administrator. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 311 analysis, compliance shall be based on the results from the Method 311 analysis.

(2)(i) Determine the volume both in total gallons as applied and in total gallons (less water) as applied of each coating. If any ingredients, including diluent solvents, are added prior to its application, the volume of each coating shall be determined at a time and location in the process after all ingredients (including any diluent solvent) have been added.

(ii) Determine the volume of each coating (less water) as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.

(iii) The volume applied may be determined from company records.

(3)(i) Determine the density of each coating as applied. If any ingredients, including diluent solvent, are added to a coating prior to its application, the density of the coating shall be determined at a time and location in the process after all ingredients have been added.

(ii) Determine the density of each coating as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.

(A) If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the density of the coating, then the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

(B) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the density of the coating, then the density of the coating shall be redetermined.

(iii) The density may be determined from company records, including manufacturer's data sheets. If the density of the coating cannot be determined using the company's records, including the manufacturer's data, then the owner or operator shall submit an alternative procedure for determining the density for approval by the Administrator.

(4) Calculate the total volume in gallons as applied (less water) by summing the individual volumes of each coating (less water) as applied, which were determined under paragraph (d)(2) of this section.

(5) Calculate the volume-weighted average mass of organic HAP in coatings emitted per unit volume (lb/gal) of coating (less water) as applied during each 30-day period using equation 4:

$$H_a = \frac{\sum_{i=1}^{n} W_{Hi} D_{ci} V_{ci}}{C_{lw}} \qquad \text{Eq. 4}$$

where:

H_a = volume-weighted average mass of organic HAP emitted per unit volume of coating (lb/gal) (less water) as applied during each 30-day period for those coatings being averaged.

n = number of coatings being averaged.

W_{Hi} = weight fraction (expressed as a decimal) of organic HAP in coating i as applied that is being averaged during each 30-day period.

D_{ci} = density (lb of coating per gal of coating) of coating i as applied that is being averaged during each 30-day period.

V_{ci} = volume (gal) of coating i as applied that is being averaged during the 30-day period.

C_{lw} = total volume (gal) of all coatings (less water) as applied that are being averaged during each 30-day period.

(e) *VOC content level determination—compliant primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings complying with the primer, topcoat, and specialty coating VOC content levels specified in § 63.745(c) without being averaged, the procedures in paragraphs (e)(1) through (3) of this section shall be used to determine the mass of VOC emitted per volume of coating (less water and exempt solvents) as applied. As an alternative to the procedures in paragraphs (e)(1) through (3) of this section, an owner or operator may use coating manufacturer's supplied data to demonstrate that VOC emitted per volume of coating (less water and exempt solvents), as applied, is less than or equal to the applicable VOC limit specified in § 63.745(c).

(1) Determine the VOC content of each formulation (less water and exempt solvents) as applied using manufacturer's supplied data or Method 24 of 40 CFR part 60, appendix A, to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

When Method 24 is used to determine the VOC content of water-reducible coatings, the precision adjustment factors in Reference Method 24 shall be used. If the adjusted analytical VOC content is less than the formulation solvent content, then the analytical VOC content should be set equal to the formulation solvent content.

(2) For each coating applied, calculate the mass of VOC emitted per volume of coating (lb/gal) (less water and exempt solvents) as applied using equations 5, 6, and 7:

$$V_{wi} = \frac{D_{ci} W_{wi}}{D_w} \qquad \text{Eq. 5}$$

where:

V_{wi} = volume (gal) of water in one gal of coating i.

D_{ci} = density (lb of coating per gal of coating) of coating i.

W_{wi} = weight fraction (expressed as a decimal) of water in coating i.

D_w = density of water, 8.33 lb/gal.

$$M_{Vi} = D_{ci} W_{Vi} \qquad \text{Eq. 6}$$

where:

M_{vi} = mass (lb) of VOC in one gal of coating i.
D_{ci} = density (lb of coating per gal of coating) of coating i.
W_{vi} = weight fraction (expressed as a decimal) of VOC in coating i.

$$G_i = \frac{M_{vi}}{(1 - V_{wi}) - V_{xi}} \qquad \text{Eq. 7}$$

where:

G_i = mass of VOC emitted per volume of coating i (lb/gal) (less water and exempt solvents) as applied.
M_{vi} = mass (lb) of VOC in one gal of coating i.
V_{wi} = volume (gal) of water in one gal of coating i.
V_{Xi} = volume (gal) of exempt solvents in one gal of coating i.

(3)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a, compliance shall be based, except as provided in paragraph (e)(3)(ii) of this section, upon the VOC content obtained using EPA Method 24.

(ii) If the VOC content of a coating obtained using Method 24 would indicate noncompliance as determined under either §63.749 (d)(3)(i) or (d)(4)(i), an owner or operator may elect to average the coating with other uncontrolled coatings and (re)calculate G_i (using the procedure specified in paragraph (f) of this section), provided appropriate and sufficient records were maintained for all coatings included in the average (re)calculation. The (re)calculated value of G_i (G_a in paragraph (f)) for the averaged coatings shall then be used to determine compliance.

(f) *VOC content level determination—averaged primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings that are averaged within their respective coating category in order to comply with the primer, topcoat, and specialty coating VOC content limits specified in §63.745(c)(2), (c)(4), and (c)(6), the following procedure shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of coating (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1)(i) Determine the VOC content (lb/gal) as applied of each coating. If any ingredients, including diluent solvent, are added to a coating prior to its application, the VOC content of the coating shall be determined at a time and location in the process after all ingredients have been added.

(ii) Determine the VOC content of each coating as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.

(A) If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the VOC content of the coating, the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

(B) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the VOC content of the coating, the VOC content of the coating shall be redetermined.

(iii) Determine the VOC content of each primer, topcoat, and specialty coating formulation (less water and exempt solvents) as applied using EPA Method 24 or from manufacturer's data.

(2)(i) Determine the volume both in total gallons as applied and in total gallons (less water and exempt solvents) as applied of each coating. If any ingredients, including diluent solvents, are added prior to its application, the volume of each coating shall be determined at a time and location in the process after all ingredients (including any diluent solvent) have been added.

(ii) Determine the volume of each coating (less water and exempt solvents) as applied each day.

(iii) The volume applied may be determined from company records.

(3) Calculate the total volume in gallons (less water and exempt solvents) as applied by summing the individual volumes of each coating (less water and exempt solvents) as applied, which

were determined under paragraph (f)(2) of this section.

(4) Calculate the volume-weighted average mass of VOC emitted per unit volume (lb/gal) of coating (less water and exempt solvents) as applied for each coating category during each 30-day period using equation 8:

$$G_a = \frac{\sum_{i=1}^{n} (VOC)_{ci} V_{ci}}{C_{lwes}} \quad \text{Eq. 8}$$

where:

G_a = volume weighted average mass of VOC per unit volume of coating (lb/gal) (less water and exempt solvents) as applied during each 30-day period for those coatings being averaged.

n = number of coatings being averaged.

$(VOC)_{ci}$ = VOC content (lb/gal) of coating i (less water and exempt solvents) as applied (as determined using the procedures specified in paragraph (f)(1) of this section) that is being averaged during the 30-day period.

V_{ci} = volume (gal) of coating i (less water and exempt solvents) as applied that is being averaged during the 30-day period.

C_{lwes} = total volume (gal) of all coatings (less water and exempt solvents) as applied during each 30-day period for those coatings being averaged.

(5)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a, recalculation of G_a is required using the new value. If more than one coating is involved, the recalculation shall be made once using all of the new values.

(ii) If recalculation is required, an owner or operator may elect to include in the recalculation of G_a uncontrolled coatings that were not previously included provided appropriate and sufficient records were maintained for these other coatings to allow daily recalculations.

(iii) The recalculated value of G_a under either paragraph (f)(5)(i) or (f)(5)(ii) of this section shall be used to determine compliance.

(g) *Overall VOC and/or organic HAP control efficiency—carbon adsorber.* Each owner or operator subject to the requirements of § 63.745(d), § 63.746(c), or § 63.747(d) shall demonstrate initial compliance with the requirements of this subpart by following the procedures of paragraph (g)(1), (2), (3), (4), or (5) as applicable and paragraphs (6), (7), and (8) of this section. When an initial compliance demonstration is required by this subpart, the procedures in paragraphs (g)(9) through (g)(14) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) To demonstrate initial and continuous compliance with § 63.745(d), § 63.746(c), or § 63.747(d) when emissions are controlled by a dedicated solvent recovery device, each owner or operator of the affected operation may perform a liquid-liquid HAP or VOC material balance over rolling 7- to 30-day periods in lieu of demonstrating compliance through the methods in paragraph (g)(2), (g)(3), or (g)(4) of this section. Results of the material balance calculations performed to demonstrate initial compliance shall be submitted to the Administrator with the notification of compliance status required by § 63.9(h) and by § 63.753 (c)(1)(iv), (d)(3)(i), and (e)(3). When demonstrating compliance by this procedure, § 63.7(e)(3) of subpart A does not apply. The amount of liquid HAP or VOC applied and recovered shall be determined as discussed in paragraph (g)(1)(iii) of this section. The overall HAP or VOC emission reduction (R) is calculated using equation 9:

$$R = \frac{M_r}{\sum_{i=1}^{n} [W_{oi} M_{ci} - RS_i]} \times 100 \quad \text{Eq. 9}$$

(i) The value of RS_i is zero unless the owner or operator submits the following information to the Administrator for approval of a measured RS_i value that is greater than zero:

(A) Measurement techniques; and

(B) Documentation that the measured value of RS_i exceeds zero.

(ii) The measurement techniques of paragraph (g)(1)(i)(A) of this section shall be submitted to the Administrator for approval with the notification of performance test required under § 63.7(b).

(iii) Each owner or operator demonstrating compliance by the test

method described in paragraph (g)(1) of this section shall:

(A) Measure the amount of coating or stripper as applied;

(B) Determine the VOC or HAP content of all coating and stripper applied using the test method specified in §63.750(c) (1) through (3) or (e) (1) and (2) of this section;

(C) Install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device that indicates the amount of HAP or VOC recovered by the solvent recovery device over rolling 7- to 30-day periods; the device shall be certified by the manufacturer to be accurate to within ±2.0 percent, and this certification shall be kept on record;

(D) Measure the amount of HAP or VOC recovered; and

(E) Calculate the overall HAP or VOC emission reduction (R) for rolling 7- to 30-day periods using equation 9.

(F) Compliance is demonstrated if the value of R is equal to or greater than the overall HAP control efficiencies required by §63.745(d), §63.746(c), or §63.747(d).

(2) To demonstrate initial compliance with §63.745(d), §63.746(c), or §63.747(d) when affected HAP emission points are controlled by an emission control device other than a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures.

(i) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP or VOC emissions can be accurately determined by the applicable test methods and procedures specified in §63.750(g) (9) through (14).

(ii) Determine capture efficiency from the HAP emission points by capturing, venting, and measuring all HAP emissions from the HAP emission points. During a performance test, the owner or operator of affected HAP emission points located in an area with other gaseous emission sources not affected by this subpart shall isolate the affected HAP emission points from all other gaseous emission points by one of the following methods:

(A) Build a temporary total enclosure around the affected HAP emission point(s); or

(B) Shut down all gaseous emission points not affected by this subpart and continue to exhaust fugitive emissions from the affected HAP emission points through any building ventilation system and other room exhausts such as drying ovens. All ventilation air must be vented through stacks suitable for testing.

(iii) Operate the emission control device with all affected HAP emission points connected and operating.

(iv) Determine the efficiency (E) of the control device using equation 10:

(v) Determine the efficiency (F) of the capture system using equation 11:

$$E = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} - \sum_{j=1}^{P} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi}} \qquad \text{Eq. 10}$$

$$F = \frac{\sum_{i=1}^{n} Q_{di} C_{di}}{\sum_{i=1}^{n} Q_{di} C_{di} + \sum_{k=1}^{P} Q_{fk} C_{fk}} \qquad \text{Eq. 11}$$

(vi) For each HAP emission point subject to §63.745(d), §63.746(c), or §63.747(d), compliance is demonstrated if the product of (E) × (F) is equal to or greater than the overall HAP control efficiencies required under §63.745(d), §63.746(c), or §63.747(d).

(3) To demonstrate compliance with §63.745(d), §63.746(c), or §63.747(d) when affected HAP emission points are controlled by a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures:

(i) Construct the overall HAP emission reduction system so that each volumetric flow rate and the total HAP emissions can be accurately determined by the applicable test methods

and procedures specified in §63.750(g)(9) through (14);

(ii) Assure that all HAP emissions from the affected HAP emission point(s) are segregated from gaseous emission points not affected by this subpart and that the emissions can be captured for measurement, as described in paragraphs (g)(2)(ii) (A) and (B) of this section;

(iii) Operate the emission control device with all affected HAP emission points connected and operating;

(iv) Determine the efficiency (H_v) of each individual carbon adsorber vessel (v) using equation 12:

$$H_v = \frac{Q_{gv} C_{gv} - Q_{hv} C_{hv}}{Q_{gv} C_{gv}} \qquad \text{Eq. 12}$$

(v) Determine the efficiency of the carbon adsorption system (H_{sys}) by computing the average efficiency of the individual carbon adsorber vessels as weighted by the volumetric flow rate (Q_{hv}) of each individual carbon adsorber vessel (v) using equation 13:

$$H_{sys} = \frac{\sum_{v=1}^{q} H_v Q_{hv}}{\sum_{v=1}^{q} Q_{hv}} \qquad \text{Eq. 13}$$

(vi) Determine the efficiency (F) of the capture system using equation 11.

(vii) For each HAP emission point subject to §63.745(d), §63.746(c), or §63.747(d), compliance is demonstrated if the product of (H_{sys}) × (F) is equal to or greater than the overall HAP control efficiency required by §63.745(d), §63.746(c), or §63.747(d).

(4) An alternative method of demonstrating compliance with §63.745(d), §63.746(c), or §63.747(d) is the installation of a total enclosure around the affected HAP emission point(s) and the ventilation of all HAP emissions from the total enclosure to a control device with the efficiency specified in paragraph (g)(4)(iii) of this section. If this method is selected, the compliance test methods described in paragraphs (g)(1), (g)(2), and (g)(3) of this section are not required. Instead, each owner or operator of an affected source shall:

(i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in paragraphs (g)(4)(i) (A) through (D) of this section shall be considered a total enclosure. The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected HAP emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(A) The total area of all natural draft openings shall not exceed 5% of the total surface area of the total enclosure's walls, floor, and ceiling;

(B) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(C) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(*1*) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods and procedures specified in §63.750(g) (10) and (11); volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(*2*) Determine FV by equation 14:

$$FV = \frac{\sum_{j=1}^{n} Q_{out\,j} - \sum_{i=1}^{p} Q_{in\,i}}{\sum_{k=1}^{q} A_k} \qquad \text{Eq. 14}$$

(D) The air passing through all natural draft openings shall flow into the enclosure continuously. If FV is less than or equal to 9,000 meters per hour, the continuous inward flow of air shall be verified by continuous observation using smoke tubes, streamers, tracer gases, or other means approved by the Administrator over the period that the volumetric flow rate tests required to

determine FV are carried out. If FV is greater than 9,000 meters per hour, the direction of airflow through the natural draft openings shall be presumed to be inward at all times without verification.

(ii) Determine the control device efficiency using equation 10 or equations 12 and 13, as applicable, and the test methods and procedures specified in §63.750(g) (9) through (14).

(iii) Compliance shall be achieved if the installation of a total enclosure is demonstrated and the value of E determined from equation 10 (or the value of H_{sys} determined from equations 12 and 13, as applicable) is equal to or greater than the overall HAP control efficiencies required under §63.745(d), §63.746(c), or §63.747(d).

(5) When nonregenerative carbon adsorbers are used to comply with §63.745(d), §63.746(c), or §63.747(d), the owner or operator may conduct a design evaluation to demonstrate initial compliance in lieu of following the compliance test procedures of paragraphs (g)(1), (2), (3), and (4) of this section. The design evaluation shall consider the vent stream composition, component concentrations, flow rate, relative humidity, and temperature, and shall establish the design exhaust vent stream organic compound concentration level, capacity of the carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and the emission point operating schedule.

(6)(i) To demonstrate initial compliance with §63.745(d), §63.746(c), or §63.747(d) when hard piping or ductwork is used to direct VOC and HAP emissions from a VOC and HAP source to the control device, each owner or operator shall demonstrate upon inspection that the criteria of paragraph (g)(6)(i)(A) and paragraph (g)(6)(i) (B) or (C) of this section VR/FD are met.

(A) The equipment shall be vented to a control device.

(B) The control device efficiency (E or H_{sys}, as applicable) determined using equation 10 or equations 12 and 13, respectively, and the test methods and procedures specified in §63.750(g) (9) through (14), shall be equal to or greater than the overall HAP control efficiency required by §63.745(d), §63.746(c), or §63.747(d).

(C) When a nonregenerative carbon adsorber is used, the ductwork from the affected emission point(s) shall be vented to the control device and the carbon adsorber shall be demonstrated, through the procedures of §63.750(g) (1), (2), (3), (4), or (5), to meet the requirements of §63.745(d), §63.746(c), or §63.747(d).

(7) Startups and shutdowns are normal operation for this source category. Emissions from these activities are to be included when determining if the standards specified in §63.745(d), §63.746(c), or §63.747(d) are being attained.

(8) An owner or operator who uses compliance techniques other than those specified in this subpart shall submit a description of those compliance procedures, subject to the Administrator's approval, in accordance with §63.7(f) of subpart A.

(9) Either EPA Method 18 or EPA Method 25A of appendix A of part 60, as appropriate to the conditions at the site, shall be used to determine VOC and HAP concentration of air exhaust streams as required by §63.750(g) (1) through (6). The owner or operator shall submit notice of the intended test method to the Administrator for approval along with the notification of the performance test required under §63.7(b). Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in paragraphs (g)(9) (i) and (ii) of this section, the test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(i) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to paragraph (g) (2) or (4) of this section, the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(ii) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(10) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(11) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(12) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(13) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(14) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(h) *Overall VOC and/or organic HAP control efficiency—control devices other than carbon adsorbers.* Calculate the overall control efficiency of a control system with a control device other than a carbon adsorber using the following procedure.

(1) Calculate the overall control efficiency using equation 15:

$$E_k = R_k F_k \qquad \text{Eq. 15}$$

where:

E_k = overall VOC and/or organic HAP control efficiency (expressed as a decimal) of control system k.

R_k = destruction or removal efficiency (expressed as a decimal) of total organic compounds or total organic HAP for control device k as determined under paragraph (h)(2) of this section.

F_k = capture efficiency (expressed as a decimal) of capture system k as determined under paragraph (h)(3) of this section.

(2) The organic HAP destruction or removal efficiency R_k of a control device other than a carbon adsorber shall be determined using the procedures described below. The destruction efficiency may be measured as either total organic HAP or as TOC minus methane and ethane according to these procedures.

(i) Use Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, to select the sampling sites.

(ii) Determine the gas volumetric flow rate using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(iii) Use Method 18 of 40 CFR part 60, appendix A, to measure either TOC minus methane and ethane or total organic HAP. Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of this part may be used.

(iv) Use the following procedure to calculate the destruction or removal efficiency:

(A) The destruction or removal efficiency test shall consist of three runs. The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, the samples shall be taken at approximately equal intervals in time such as 15-minute intervals during the run.

(B) Calculate the mass rate of either TOC (minus methane and ethane) or total organic HAP (E_i, E_o using equations 16 and 17:

$$E_i = K_2 \left(\sum_{j=1}^{n} C_{ij} M_{ij} \right) Q_i \qquad \text{Eq. 16}$$

$$E_o = K_2 \left(\sum_{j=1}^{n} C_{oj} M_{oj} \right) Q_o \qquad \text{Eq. 17}$$

where:

E_i, E_o = mass rate of TOC (minus methane and ethane) or total organic HAP at the inlet and outlet of the control device, respectively, dry basis, kg/hr.

K_2 = constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature for (gram-mole per standard cubic meter) is 20 °C.

n = number of sample components in the gas stream.

C_{ij}, C_{oj} = concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, parts per million by volume.

M_{ij}, M_{oj} = molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.

Q_i, Q_o = flow rate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.

(*1*) Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by EPA Method 18 shall be summed using equation 16 in paragraph (h)(2)(iv)(B) of this section.

(*2*) Where the mass rate of total organic HAP is being calculated, only the organic HAP species shall be summed using equation 17 in paragraph (h)(2)(iv)(B) of this section. The list of organic HAP is provided in §63.104 of subpart F of this part.

(C) Calculate the destruction or removal efficiency for TOC (minus methane and ethane) or total organic HAP using equation 18:

$$R = \frac{E_i - E_o}{E_i} \times 100 \qquad \text{Eq. 18}$$

where:

R = destruction or removal efficiency of control device, percent.

E_i = mass rate of TOC (minus methane and ethane) or total organic HAP at the inlet to the control device as calculated under paragraph (h)(2)(iv)(B) of this section, kg TOC per hour or kg organic HAP per hour.

E_o = mass rate of TOC (minus methane and ethane) or total organic HAP at the outlet of the control device, as calculated under paragraph (h)(2)(iv)(B) of this section, kg TOC per hour or kg organic HAP per hour.

(3) Determine the capture efficiency F_k of each capture system to which organic HAP and VOC emissions from coating operations are vented. The capture efficiency value shall be determined using Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure as found in appendix B to §52.741 of part 52 of this chapter for total enclosures, and the capture efficiency protocol specified in §52.741(a)(4)(iii) of part 52 of this chapter for all other enclosures.

(i)(1) *Alternative application method—primers, topcoats, and specialty coatings.* (i) Each owner or operator seeking to use an alternative application method (as allowed in §63.745(f)(1)(v)) in complying with the standards for primers and topcoats shall use the procedures specified in paragraphs (i)(2)(i) and (ii) or (i)(2)(iii) of this section to determine the organic HAP and VOC emission levels of the alternative application technique as compared to either HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods.

(ii) For specialty coatings, an owner or operator may use any other coating application method capable of achieving emission reductions or a transfer efficiency equivalent to or better than that provided by HVLP, electrostatic spray, air-assisted airless, or airless application. Any owner or operator using an application method pursuant to this paragraph (i)(2)(ii) shall maintain records demonstrating the transfer efficiency achieved.

(2)(i) For the process or processes for which the alternative application method is to be used, the total organic HAP and VOC emissions shall be determined for an initial 30-day period, the period of time required to apply coating to five completely assembled aircraft, or a time period approved by the permitting agency. During this initial period, only HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods shall be used. The emissions shall be determined based on the volumes, organic HAP contents (less water), and VOC contents (less water and exempt solvents) of the coatings as applied.

(ii) Upon implementation of the alternative application method, use the alternative application method in production on actual production parts or assemblies for a period of time sufficient to coat an equivalent amount of parts and assemblies with coatings identical to those used in the initial 30-day period. The actual organic HAP and VOC emissions shall be calculated for this post-implementation period.

(iii) Test the proposed application method against either HVLP, electrostatic spray application methods, air-assisted airless application methods, or

airless application methods in a laboratory or pilot production area, using parts and coatings representative of the process(es) where the alternative method is to be used. The laboratory test will use the same part configuration(s) and the same number of parts for both the proposed method and the HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods.

(iv) Whenever the approach in either paragraph (i)(2)(ii) or (i)(2)(iii) of this section is used, the owner or operator shall calculate both the organic HAP and VOC emission reduction using equation:

$$P = \frac{E_b - E_a}{E_b} \times 100 \qquad \text{Eq. 19}$$

where:

P = organic HAP or VOC emission reduction, percent.

E_b = organic HAP or VOC emissions, in pounds, before the alternative application technique was implemented, as determined under paragraph (i)(2)(i) of this section.

E_a = organic HAP of VOC emissions, in pounds, after the alternative application technique was implemented, as determined under paragraph (i)(2)(ii) of this section.

(3) Each owner or operator seeking to demonstrate that an alternative application method achieves emission reductions equivalent to HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods shall comply with the following:

(i) Each coating shall be applied such that the dried film thickness is within the range specified by the applicable specification(s) for the aerospace vehicle or component being coated.

(ii) If no such dried film thickness specification(s) exists, the owner or operator shall ensure that the dried film thickness applied during the initial 30-day period is equivalent to the dried film thickness applied during the alternative application method test period for similar aerospace vehicles or components.

(iii) Failure to comply with these dried film thickness requirements shall invalidate the test results obtained under paragraph (i)(2)(i) of this section.

(j) *Spot stripping and decal removal.* Each owner or operator seeking to comply with §63.746(b)(3) shall determine the volume of organic HAP-containing chemical strippers or alternatively the weight of organic HAP used per aircraft using the procedure specified in paragraphs (j)(1) through (j)(3) of this section.

(1) For each chemical stripper used for spot stripping and decal removal, determine for each annual period the total volume as applied or the total weight of organic HAP using the procedure specified in paragraph (d)(2) of this section.

(2) Determine the total number of aircraft for which depainting operations began during the annual period as determined from company records.

(3) Calculate the annual average volume of organic HAP-containing chemical stripper or weight of organic HAP used for spot stripping and decal removal per aircraft using equation 20 (volume) or equation 21 (weight):

$$C = \frac{\sum_{i=1}^{n} V_{si}}{A} \qquad \text{Eq. 20}$$

where:

C = annual average volume (gal per aircraft) of organic HAP-containing chemical stripper used for spot stripping and decal removal.

n = number of organic HAP-containing chemical strippers used in the annual period.

V_{si} = volume (gal) of organic HAP-containing chemical stripper (i) used during the annual period.

A = number of aircraft for which depainting operations began during the annual period.

$$C = \frac{\sum_{i=1}^{n} \left(V_{si} D_{hi} \left(\sum_{i=1}^{m} W_{hi} \right) \right)}{A} \qquad \text{Eq. 21}$$

where:

C = annual average weight (lb per aircraft) of organic HAP (chemical stripper) used for spot stripping and decal removal.

m = number of organic HAP contained in each chemical stripper, as applied.

n = number of organic HAP-containing chemical strippers used in the annual period.

W_{hi} = weight fraction (expressed as a decimal) of each organic HAP (i) contained in the chemical stripper, as applied, for each aircraft depainted.

D_{hi} = density (lb/gal) of each organic HAP-containing chemical stripper (i), used in the annual period.

V_{si} = volume (gal) of organic HAP-containing chemical stripper (i) used during the annual period.

A = number of aircraft for which depainting operations began during the annual period.

(k) *Organic HAP content level determination—compliant chemical milling maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant organic HAP content limit specified in § 63.747(c)(1) without being averaged, the procedure in paragraph (k)(1) of this section shall be used to determine the mass of organic HAP emitted per unit volume of coating (chemical milling maskant) i as applied (less water), H_i (lb/gal). As an alternative to the procedures in paragraph (k)(1) of this section, an owner or operator may use coating manufacturer's supplied data to demonstrate that organic HAP emitted per volume of coating (less water), as applied, is less than or equal to the applicable organic HAP limit specified in § 63.747(c). Owners and operators that use the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating may add non-HAP solvent to those coatings provided that the owner or operator also maintains records of the non-HAP solvent added to the coating.

(1) For coatings that contain no exempt solvents, determine the total organic HAP content using manufacturer's supplied data or Method 24 of 40 CFR part 60, appendix A to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

When Method 24 is used to determine the VOC content of water-reducible coatings, the precision adjustment factors in Reference Method 24 shall be used. If the adjusted analytical VOC content is less than the formulation solvent content, then the analytical VOC content should be set equal to the formulation solvent content.

(2) [Reserved]

(l) *Organic HAP content level determination—averaged chemical milling maskants.* For those uncontrolled chemical milling maskants that are averaged together in order to comply with the chemical milling maskant organic HAP content level specified in § 63.747(c)(1), the procedure specified in paragraphs (l)(1) through (l)(4) of this section shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of chemical milling maskant (less water) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1) Determine the total organic HAP weight fraction as applied of each chemical milling maskant used during each 30-day period using the procedure specified in paragraph (d)(1) of this section.

(2) Determine for each 30-day period:

(i) The individual volume of each chemical milling maskant applied in terms of total gallons (less water) (using the procedure specified in paragraph (d)(2) of this section), and

(ii) The total volume in gallons of all chemical milling maskants (less water) as applied by summing the individual volumes of each chemical milling maskant as applied (less water).

(3) Determine the density of each chemical milling maskant as applied used during each 30-day period using the procedure specified in paragraph (d)(3) of this section.

(4) Calculate the volume-weighted average mass of organic HAP emitted per unit volume (lb/gal) of chemical milling maskant (less water) as applied for all chemical milling maskants during each 30-day period using equation 22:

$$H_a = \frac{\sum_{i=1}^{n} W_{Hi} D_{mi} V_{mi}}{M_{lw}} \qquad \text{Eq. 22}$$

where:

H_a = volume-weighted mass of organic HAP emitted per unit volume of chemical milling maskants (lb/gal) (less water) as applied during each 30-day period for those chemical milling maskants being averaged.

n = number of chemical milling maskants being averaged.

W_{Hi} = weight fraction (expressed as a decimal) of organic HAP in chemical milling maskant i (less water) as applied during each 30-day period that is averaged.

D_{mi} = density (lb chemical milling maskant per gal coating) of chemical milling maskant i as applied during each 30-day period that is averaged.

V_{mi} = volume (gal) of chemical milling maskant i (less water) as applied during the 30-day period that is averaged.

M_{lw} = total volume (gal) of all chemical milling maskants (less water) as applied during each 30-day period that is averaged.

(m) *VOC content level determination—compliant chemical milling maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant VOC content limit specified in §63.747(c)(2) without being averaged, the procedure specified in paragraphs (m)(1) and (2) of this section shall be used to determine the mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied. As an alternative to the procedures in paragraphs (m)(1) and (2) of this section, an owner or operator may use coating manufacturer's supplied data to demonstrate that VOC emitted per volume of coating (less water and exempt solvents), as applied, is less than or equal to the applicable VOC limit specified in §63.747(c).

(1) Determine the mass of VOC emitted per unit volume of chemical milling maskant (lb/gal) (less water and exempt solvents) as applied, G_i, for each chemical milling maskant using the procedures specified in paragraphs (e)(1) and (e)(2) of this section.

(2)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_i, compliance shall be based, except as provided in paragraph (m)(2)(ii) of this section, upon the VOC content obtained using EPA Method 24.

(ii) If the VOC content of a chemical milling maskant obtained using EPA Method 24 would indicate noncompliance as determined under §63.749(h)(3)(i), an owner or operator may elect to average the chemical milling maskant with other uncontrolled chemical milling maskants and (re)calculate G_a (using the procedure specified in paragraph (n) of this section), provided appropriate and sufficient records were maintained for all chemical milling maskants included in the average recalculation. The (re)calculated value of G_a for the averaged chemical milling maskants shall then be used to determine compliance.

(n) *VOC content level determination—averaged chemical milling maskants.* For those uncontrolled chemical milling maskants that are averaged together in order to comply with the chemical milling maskant VOC content limit specified in §63.747(c)(2), the procedure specified in paragraphs (n)(1) through (n)(4) of this section shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1) Determine the VOC content of each chemical milling maskant (less water and exempt solvents) as applied used during each 30-day period using the procedure specified in paragraph (f)(1) of this section.

(2)(i) Determine the individual volume of each chemical milling maskant applied in terms of total gallons (less water and exempt solvents) using the procedure specified in paragraph (f)(2) of this section, and

(ii) Calculate the total volume in gallons of all chemical milling maskants (less water and exempt solvents) as applied by summing the individual volumes of each chemical milling maskant (less water and exempt solvents) as applied.

(3) Calculate the volume-weighted average mass of VOC emitted per unit volume (lb/gal) of chemical milling maskant (less water and exempt solvents) as applied during each 30-day period using equation 23:

$$G_a = \frac{\sum_{i=1}^{n} (VOC)_{mi} V_{mi}}{M_{lwes}} \qquad \text{Eq. 23}$$

where:

G_a = volume-weighted average mass of VOC per unit volume of chemical milling maskant (lb/gal) (less water and exempt solvents) as applied during each 30-day period for those chemical milling maskants that are averaged.

n = number of chemical milling maskants being averaged.

$(VOC)_{mi}$ = VOC content (lb/gal) of chemical milling maskant i (less water and exempt solvents) as applied during the 30-day period that is averaged.

V_{mi} = volume (gal) of chemical milling maskant i (less water and exempt solvents) as applied during the 30-day period that is averaged.

M_{lwes} = total volume (gal) of all chemical milling maskants (less water and exempt solvents) as applied during each 30-day period that is averaged.

(4)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a, recalculation of G_a is required using the new value. If more than one chemical milling maskant is involved, the recalculation shall be made once using all of the new values.

(ii) If recalculation is required, an owner or operator may elect to include in the recalculation of G_a uncontrolled chemical milling maskants that were not previously included provided appropriate and sufficient records were maintained for these other chemical milling maskants to allow daily recalculations.

(iii) The recalculated value of G_a under either paragraph (n)(4)(i) or (n)(4)(ii) of this section shall be used to determine compliance.

(o) *Inorganic HAP emissions—dry particulate filter certification requirements.* Dry particulate filters used to comply with §§ 63.745(g)(2) or 63.746(b)(4) must be certified by the filter manufacturer or distributor, paint/depainting booth supplier, and/or the facility owner or operator using method 319 in appendix A of this part, to meet or exceed the efficiency data points found in Tables 2 and 3, or 4 and 5 of § 63.745 for existing or new sources respectively.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15021, Mar. 27, 1998; 63 FR 46534, Sept. 1, 1998; 65 FR 62215, Oct. 17, 2000; 79 FR 11284, Feb. 27, 2014; 80 FR 76185, Dec. 7, 2015]

§ 63.751 Monitoring requirements.

(a) *Enclosed spray gun cleaners.* Each owner or operator using an enclosed spray gun cleaner under § 63.744(c)(1) shall visually inspect the seals and all other potential sources of leaks associated with each enclosed gun spray cleaner system at least once per month. Each inspection shall occur while the system is in operation.

(b) *Incinerators and carbon adsorbers—initial compliance demonstrations.* Each owner or operator subject to the requirements in this subpart must demonstrate initial compliance with the requirements of §§ 63.745(d), 63.746(c), and 63.747(d) of this subpart. Each owner or operator using a carbon adsorber to comply with the requirements in this subpart shall comply with the requirements specified in paragraphs (b)(1) through (7) of this section. Each owner or operator using an incinerator to comply with the requirements in this subpart shall comply with the requirements specified in paragraphs (b)(8) through (12) of this section.

(1) Except as allowed by paragraph (b)(2) or (b)(5) of this section, for each control device used to control organic HAP or VOC emissions, the owner or operator shall fulfill the requirements of paragraph (b)(1) (i) or (ii) of this section.

(i) The owner or operator shall establish as a site-specific operating parameter the outlet total HAP or VOC concentration that demonstrates compliance with § 63.745(d), § 63.746(c), or § 63.747(d) as appropriate; or

(ii) The owner or operator shall establish as the site-specific operating parameter the control device efficiency that demonstrates compliance with § 63.745(d), § 63.746(c), or § 63.747(d).

(iii) When a nonregenerative carbon adsorber is used to comply with § 63.745(d), § 63.746(c), or § 63.747(d), the site-specific operating parameter value may be established as part of the design evaluation used to demonstrate

initial compliance. Otherwise, the site-specific operating parameter value shall be established during the initial performance test conducted according to the procedures of § 63.750(g).

(2) For each nonregenerative carbon adsorber, in lieu of meeting the requirements of § 63.751(b)(1), the owner or operator may establish as the site-specific operating parameter the carbon replacement time interval, as determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system. The carbon replacement time interval shall be established either as part of the design evaluation to demonstrate initial compliance or during the initial performance test conducted according to the procedures in § 63.750(g) (1), (2), (3), or (4).

(3) Each owner or operator venting solvent HAP emissions from a source through a room, enclosure, or hood, to a control device to comply with § 63.745(d), § 63.746(c), or § 63.747(d) shall:

(i) Submit to the Administrator with the compliance status report required by § 63.9(h) of the General Provisions a plan that:

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance; and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with § 63.745(d), § 63.746(c), or § 63.747(d), as appropriate; and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(4) Owners or operators subject to § 63.751(b) (1), (2), or (3) shall calculate the site-specific operating parameter value, or range of values, as the arithmetic average of the maximum and/or minimum operating parameter values, as appropriate, that demonstrate compliance with § 63.745(d), § 63.746(c), or § 63.747(d) during the multiple test runs required by § 63.750 (g)(2) and (g)(1).

(5) For each solvent recovery device used to comply with § 63.745(d), § 63.746(c), or § 63.747(d), in lieu of meeting the requirements of paragraph (b)(1) of this section, the results of the material balance calculation conducted in accordance with § 63.750(g)(1) may serve as the site-specific operating parameter that demonstrates compliance with § 63.745(d), § 63.746(c), or § 63.747(d).

(6) *Continuous compliance monitoring.* Following the date on which the initial compliance demonstration is completed, continuous compliance with § 63.745(d), § 63.746(c), or § 63.747(d) of this subpart shall be demonstrated as outlined in this paragraph.

(i) Each owner or operator of an affected source subject to § 63.745(d), § 63.746(c), or § 63.747(d) of this subpart shall monitor the applicable parameters specified in paragraph (b)(6)(ii), (b)(6)(iii), or (b)(6)(iv) of this section depending on the type of control technique used.

(ii) Compliance monitoring shall be subject to the following provisions:

(A) Except as allowed by paragraph (b)(6)(iii)(A)(*2*) of this section, all continuous emission monitors shall comply with performance specification (PS) 8 or 9 in 40 CFR part 60, appendix B, as appropriate depending on whether VOC or HAP concentration is being measured. The requirements in appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators shall challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(B) If the effluent from multiple emission points are combined prior to being channeled to a common control device, the owner or operator is required only to monitor the common control device, not each emission point.

(iii) Owners or operators complying with § 63.745(d), § 63.746(c), or § 63.747(d) through the use of a control device and establishing a site-specific operating parameter in accordance with paragraph (b)(1) of this section shall fulfill the requirements of paragraph (b)(6)(iii)(A) of this section and paragraph (b)(6)(iii)(B) or (C) of this section, as appropriate.

(A) The owner or operator shall install, calibrate, operate, and maintain a continuous emission monitor.

(*1*) The continuous emission monitor shall be used to measure continuously the total HAP or VOC concentration at both the inlet and the outlet whenever HAP from coating and paint stripping operations are vented to the control device, or when continuous compliance is demonstrated through a percent efficiency calculation; or

(*2*) For owners or operators using a nonregenerative carbon adsorber, in lieu of using continuous emission monitors as specified in paragraph (b)(6)(iii)(A)(*1*) of this section, the owner or operator may use a portable monitoring device to monitor total HAP or VOC concentration at the inlet and outlet or the outlet of the carbon adsorber as appropriate.

(*a*) The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications.

(*b*) The monitoring device shall meet the requirements of part 60, appendix A, Method 21, sections 2, 3, 4.1, 4.2, and 4.4. The calibration gas shall either be representative of the compounds to be measured or shall be methane, and shall be at a concentration associated with 125% of the expected organic compound concentration level for the carbon adsorber outlet vent.

(*c*) The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber outlet vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The maximum reading during that period shall be used as the measurement.

(B) If complying with §63.745(d), §63.746(c), or §63.747(d) through the use of a carbon adsorption system with a common exhaust stack for all of the carbon vessels, the owner or operator shall not operate the control device at an average control efficiency less than that required by §63.745(d), §63.746(c), or §63.747(d) for three consecutive adsorption cycles.

(C) If complying with §63.745(d), §63.746(c), or §63.747(d) through the use of a carbon adsorption system with individual exhaust stacks for each of the multiple carbon adsorber vessels, the owner or operator shall not operate any carbon adsorber vessel at an average control efficiency less than that required by §63.745(d), §63.746(c), or §63.747(d) as calculated daily using a 7 to 30-day rolling average.

(D) If complying with §63.745(d), §63.746(c), or §63.747(d) through the use of a nonregenerative carbon adsorber, in lieu of the requirements of paragraph (b)(6)(iii) (B) or (C) of this section, the owner or operator may monitor the VOC or HAP concentration of the adsorber exhaust daily, at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater, or at a frequency as determined by the owner or operator and approved by the Administrator.

(iv) Owners or operators complying with §63.745(d), §63.746(c), or §63.747(d) through the use of a nonregenerative carbon adsorber and establishing a site-specific operating parameter for the carbon replacement time interval in accordance with paragraph (b)(2) shall replace the carbon in the carbon adsorber system with fresh carbon at the predetermined time interval as determined in the design evaluation.

(v) Owners or operators complying with §63.745(d), §63.746(c), or §63.747(d) by capturing emissions through a room, enclosure, or hood shall install, calibrate, operate, and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with paragraph (b)(3) of this section whenever VOC and HAP from coating and stripper operations are vented through the capture device. The capture device shall not be operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with paragraph (b)(3) of this section for any 3-hour period.

(7) Owners or operators complying with paragraph (b)(4) or (b)(5) of this section shall calculate the site-specific operating parameter value as the arithmetic average of the minimum operating parameter values that demonstrate compliance with §63.745(d)and §63.747(d) during the three test runs required by §63.750(h)(2)(iv).

(8) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications. Every 3 months, facilities shall replace the temperature sensors or have the temperature sensors recalibrated. As an alternative, a facility may use a continuous emission monitoring system (CEMS) to verify that there has been no change in the destruction efficiency and effluent composition of the incinerator.

(9) Where an incinerator other than a catalytic incinerator is used, a thermocouple equipped with a continuous recorder shall be installed and continuously operated in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(10) Where a catalytic incinerator is used, thermocouples, each equipped with a continuous recorder, shall be installed and continuously operated in the gas stream immediately before and after the catalyst bed.

(11) For each incinerator other than a catalytic incinerator, each owner or operator shall establish during each performance test during which compliance is demonstrated, including the initial performance test, the minimum combustion temperature as a site-specific operating parameter. This minimum combustion temperature shall be the operating parameter value that demonstrates compliance with §§ 63.745(d) and 63.747(d).

(12) For each catalytic incinerator, each owner or operator shall establish during each performance test during which compliance is demonstrated, including the initial performance test, the minimum gas temperature upstream of the catalyst bed and the minimum gas temperature difference across the catalyst bed as site-specific operating parameters. These minimum temperatures shall be the operating parameter values that demonstrate compliance with §§ 63.745(d) and 63.747(d).

(c) *Dry particulate filter, HEPA filter, and waterwash systems—primer, topcoat, and specialty coating application operations.* (1) Each owner or operator using a dry particulate filter system to meet the requirements of § 63.745(g)(2) shall, while primer, topcoat, and specialty coating application operations are occurring, continuously monitor the pressure drop across the system and read and record the pressure drop once per shift following the recordkeeping requirements of § 63.752(d), or install an interlock system as specified in § 63.745(g)(2)(iv)(C).

(2) Each owner or operator using a conventional waterwash system to meet the requirements of § 63.745(g)(2) shall, while primer or topcoat application operations are occurring, continuously monitor the water flow rate through the system and read and record the water flow rate once per shift following the recordkeeping requirements of § 63.752(d), or install an interlock system as specified in § 63.745(g)(2)(v). Each owner or operator using a pumpless waterwash system to meet the requirements of § 63.745(g)(2) shall, while primer, topcoat, and specialty coating application operations are occurring, measure and record the parameter(s) recommended by the booth manufacturer that indicate booth performance once per shift, following the recordkeeping requirements of § 63.752(d), or install an interlock system as specified in § 63.745(g)(2)(v).

(d) *Particulate filters and waterwash booths—depainting operations.* Each owner or operator using a dry particulate filter or a conventional waterwash system in accordance with the requirements of § 63.746(b)(4) shall, while depainting operations are occurring, continuously monitor the pressure drop across the particulate filters or the water flow rate through the conventional waterwash system and read and record the pressure drop or the water flow rate once per shift following the recordkeeping requirements of § 63.752(e). Each owner or operator using a pumpless waterwash system to meet the requirements of § 63.746(b)(4) shall, while depainting operations are occurring, measure and record the parameter(s) recommended by the booth manufacturer that indicate booth performance once per shift, following the recordkeeping requirements of § 63.752(e).

(e) *Use of an alternative monitoring method*—(1) *General.* Until permission

to use an alternative monitoring method has been granted by the Administrator under this paragraph, the owner or operator of an affected source shall remain subject to the requirements of this section.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this section including, but not limited to, the following:

(i) Alternative monitoring requirements when the affected source is infrequently operated; or

(ii) Alternative locations for installing continuous monitoring systems when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements; or

(iii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified in this section.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section. If the results of the specified and the alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) *Request to use alternative monitoring method.* An owner or operator who wishes to use an alternative monitoring method shall submit an application to the Administrator as described in paragraph (e)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring method is not used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring method is to be used to demonstrate compliance with a relevant standard, the application shall be submitted not later than with the site-specific test plan required in §63.7(c) (if requested) or with the site-specific performance evaluation plan (if requested), or at least 60 days before the performance evaluation is scheduled to begin.

(ii) The application shall contain a description of the proposed alternative monitoring system and information justifying the owner's or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (e)(4)(i) of this section to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this subpart.

(5) *Approval of request to use alternative monitoring method.* (i) The Administrator will notify the owner or operator of his/her intention to deny approval of the request to use an alternative monitoring method within 60 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that is submitted. If notification of intent to deny approval is not received within 60 calendar days, the alternative monitoring method is to be considered approved. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intent to disapprove the request together with:

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (e)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until approval is received from

the Administrator to use another monitoring method as allowed by paragraph (e) of this section.

(f) *Reduction of monitoring data.* (1) The data may be recorded in reduced or nonreduced form (e.g., parts per million (ppm) pollutant and % O_2 or nanograms per Joule (ng/J) of pollutant).

(2) All emission data shall be converted into units specified in this subpart for reporting purposes. After conversion into units specified in this subpart, the data may be rounded to the same number of significant digits as used in this subpart to specify the emission limit (e.g., rounded to the nearest 1% overall reduction efficiency).

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15023, Mar. 27, 1998; 63 FR 46534, Sept. 1, 1998; 65 FR 76945, Dec. 8, 2000; 80 FR 76186, Dec. 7, 2015]

§ 63.752 Recordkeeping requirements.

(a) *General.* Each owner or operator of a source subject to this subpart shall fulfill all recordkeeping requirements specified in § 63.10(a), (b), (d), and (f), except § 63.10(b)(2)(i), (iv) and (v). Each owner or operator must also record and maintain according to § 63.10(b)(1) the information specified in paragraph (a)(1) through (3) of this section.

(1) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(3) Record actions taken to minimize emissions in accordance with § 63.743(e), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(b) *Cleaning operation.* Each owner or operator of a new or existing cleaning operation subject to this subpart shall record the information specified in paragraphs (b)(1) through (b)(5) of this section, as appropriate.

(1) The name, vapor pressure, and documentation showing the organic HAP constituents of each cleaning solvent used for affected cleaning operations at the facility.

(2) For each cleaning solvent used in hand-wipe cleaning operations that complies with the composition requirements specified in § 63.744(b)(1) or for semi-aqueous cleaning solvents used for flush cleaning operations:

(i) The name of each cleaning solvent used;

(ii) All data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements; and

(iii) Annual records of the volume of each solvent used, as determined from facility purchase records or usage records.

(3) For each cleaning solvent used in hand-wipe cleaning operations that does not comply with the composition requirements in § 63.744(b)(1), but does comply with the vapor pressure requirement in § 63.744(b)(2):

(i) The name of each cleaning solvent used;

(ii) The composite vapor pressure of each cleaning solvent used;

(iii) All vapor pressure test results, if appropriate, data, and calculations used to determine the composite vapor pressure of each cleaning solvent; and

(iv) The amount (in gallons) of each cleaning solvent used each month at each operation.

(4) For each cleaning solvent used for the exempt hand-wipe cleaning operations specified in § 63.744(e) that does not conform to the vapor pressure or composition requirements of § 63.744(b):

(i) The identity and amount (in gallons) of each cleaning solvent used each month at each operation; and

(ii) A list of the processes set forth in § 63.744(e) to which the cleaning operation applies.

(5) A record of all leaks from enclosed spray gun cleaners identified pursuant to § 63.751(a) that includes for each leak found:

(i) Source identification;

(ii) Date leak was discovered; and

(iii) Date leak was repaired.

(c) *Primer, topcoat, and specialty coating application operations—organic HAP and VOC.* Each owner or operator required to comply with the organic HAP and VOC content limits specified in

§ 63.745(c) shall record the information specified in paragraphs (c)(1) through (6) of this section, as appropriate. Each owner and operator using coating manufacturer's supplied data to demonstrate compliance with the applicable organic HAP or VOC limit specified in § 63.745(c) may retain the manufacturer's documentation and annual purchase records in place of the records specified in paragraphs (c)(2) and (3) of this section. Owners and operators using the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating, and adding non-HAP solvent to those coatings, must also maintain records of the non-HAP solvent added to the coating.

(1) The name and VOC content as received and as applied of each primer, topcoat, and specialty coating used at the facility.

(2) For uncontrolled primers, topcoats, and specialty coatings that meet the organic HAP and VOC content limits in § 63.745(c)(1) through (c)(6) without averaging:

(i) The mass of organic HAP emitted per unit volume of coating as applied (less water) (H_i) and the mass of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_i) for each coating formulation within each coating category used each month (as calculated using the procedures specified in § 63.750(c) and (e));

(ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_i and G_i; and

(iii) The volume (gal) of each coating formulation within each coating category used each month.

(3) For ''low HAP content'' uncontrolled primers with organic HAP content less than or equal to 250 g/l (2.1 lb/gal) less water as applied and VOC content less than or equal to 250 g/l (2.1 lb/gal) less water and exempt solvents as applied:

(i) Annual purchase records of the total volume of each primer purchased; and

(ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the organic HAP and VOC content as applied. These records shall consist of the manufacturer's certification when the primer is applied as received, or the data and calculations used to determine H_i if not applied as received.

(4) For primers, topcoats, and specialty coatings complying with the organic HAP or VOC content level by averaging:

(i) The monthly volume-weighted average masses of organic HAP emitted per unit volume of coating as applied (less water) (H_a) and of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_a) for all coatings (as determined by the procedures specified in § 63.750(d) and (f)); and

(ii) All data, calculations, and test results (including EPA Method 24 results) used to determine the values of H_a and G_a.

(5) For primers, topcoats, and specialty coatings that are controlled by a control device other than a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and all test results, data, and calculations used in determining the overall control efficiency;

(ii) If an incinerator other than a catalytic incinerator is used, continuous records of the firebox temperature recorded under § 63.751(b)(9) and all calculated 3-hour averages of the firebox temperature; and

(iii) If a catalytic incinerator is used, continuous records of the temperature recorded under § 63.751(b)(10) and all calculated 3-hour averages of the recorded temperatures.

(6) For primers, topcoats, and specialty coatings that are controlled by a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The length of the rolling material balance period and all data and calculations used for determining this rolling period. The record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or

(ii) For nonregenerative carbon adsorbers, the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(d) *Primer, topcoat, and specialty coating application operations—inorganic HAP emissions.* (1) Each owner or operator complying with § 63.745(g) for the control of inorganic HAP emissions from primer, topcoat, and specialty coating application operations through the use of a dry particulate filter system or a HEPA filter system shall record the pressure drop across the operating system once each shift during which coating operations occur.

(2) Each owner or operator complying with § 63.745(g) through the use of a conventional waterwash system shall record the water flow rate through the operating system once each shift during which coating operations occur. Each owner or operator complying with § 63.745(g) through the use of a pumpless waterwash system shall record the parameter(s) recommended by the booth manufacturer that indicate the performance of the booth once each shift during which coating operations occur.

(3) This log shall include the acceptable limit(s) of pressure drop, water flow rate, or for the pumpless waterwash booth, the booth manufacturer recommended parameter(s) that indicate the booth performance, as applicable, as specified by the filter or booth manufacturer or in locally prepared operating procedures.

(e) *Depainting operations.* Each owner or operator subject to the depainting standards specified in § 63.746 shall record the information specified in paragraphs (e)(1) through (e)(7) of this section, as appropriate.

(1) *General.* For all chemical strippers used in the depainting operation:

(i) The name of each chemical stripper; and

(ii) Monthly volumes of each organic HAP containing chemical stripper used or monthly weight of organic HAP-material used for spot stripping and decal removal.

(2) For HAP-containing chemical strippers that are controlled by a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The length of the rolling material balance period and all data and calculations used for determining this rolling period. The record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or

(ii) For nonregenerative carbon adsorbers, the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(3) For HAP-containing chemical strippers that are controlled by a control device other than a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and all test results, data, and calculations used in determining the overall control efficiency;

(ii) [Reserved]

(4) For each type of aircraft depainted at the facility, a listing of the parts, subassemblies, and assemblies normally removed from the aircraft before depainting. Prototype, test model or aircraft that exist in low numbers (i.e., less than 25 aircraft of any one type) are exempt from this requirement.

(5) *Non-chemical based equipment.* If dry media blasting equipment is used to comply with the organic HAP emission limit specified in § 63.746(b)(1):

(i) The names and types of non-chemical based equipment; and

(ii) For periods of malfunction,

(A) The non-chemical method or technique that malfunctioned;

(B) The date that the malfunction occurred;

(C) A description of the malfunction;

(D) The methods used to depaint aerospace vehicles during the malfunction period;

(E) The dates that these methods were begun and discontinued; and

(F) The date that the malfunction was corrected.

(6) *Spot stripping and decal removal.* For spot stripping and decal removal, the volume of organic HAP-containing chemical stripper or weight of organic HAP used, the annual average volume of organic HAP-containing chemical stripper or weight of organic HAP used per aircraft, the annual number of aircraft stripped, and all data and calculations used.

(7) *Inorganic HAP emissions.* Each owner or operator shall record the actual pressure drop across the particulate filters or the visual continuity of the water curtain and water flow rate for conventional waterwash systems once each shift in which the depainting process is in operation. For pumpless waterwash systems, the owner or operator shall record the parameter(s) recommended by the booth manufacturer that indicate the performance of the booth once per shift in which the depainting process is in operation. This log shall include the acceptable limit(s) of the pressure drop as specified by the filter manufacturer, the visual continuity of the water curtain and the water flow rate for conventional waterwash systems, or the recommended parameter(s) that indicate the booth performance for pumpless systems as specified by the booth manufacturer or in locally prepared operating procedures.

(f) *Chemical milling maskant application operations.* Each owner or operator seeking to comply with the organic HAP and VOC content limits for the chemical milling maskant application operation, as specified in § 63.747(c), or the control system requirements specified in § 63.747(d), shall record the information specified in paragraphs (f)(1) through (4) of this section, as appropriate. Each owner and operator using coating manufacturer's supplied data to demonstrate compliance with the applicable organic HAP or VOC limit specified in § 63.747(c) may retain the manufacturer's documentation and annual purchase records in place of the records specified in paragraph (f)(1) of this section. Owners and operators using the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating, and adding non-HAP solvent to those coatings, must also maintain records of the non-HAP solvent added to the coating.

(1) For uncontrolled chemical milling maskants that meet the organic HAP or VOC content limit without averaging:

(i) The mass of organic HAP emitted per unit volume of chemical milling maskant as applied (less water) (H_i) and the mass of VOC emitted per unit volume of chemical milling maskant as applied (less water and exempt solvents) (G_i) for each chemical milling maskant formulation used each month (as determined by the procedures specified in § 63.750 (k) and (m));

(ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_i and G_i; and

(iii) The volume (gal) of each chemical milling maskant formulation used each month.

(2) For chemical milling maskants complying with the organic HAP or VOC content level by averaging:

(i) The monthly volume-weighted average masses of organic HAP emitted per unit volume of chemical milling maskant as applied (less water) (H_a) and of VOC emitted per unit volume of chemical milling maskant as applied (less water and exempt solvents) (G_a) for all chemical milling maskants (as determined by the procedures specified in § 63.750 (l) and (n)); and

(ii) All data, calculations, and test results (including EPA Method 24 results) used to determine the values of H_a and G_a.

(3) For chemical milling maskants that are controlled by a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The

length of the rolling material balance period and all data and calculations used for determining this rolling period. The record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or

(ii) For nonregenerative carbon adsorbers, the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(4) For chemical milling maskants that are controlled by a control device other than a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and all test results, data, and calculations used in determining the overall control efficiency;

(ii) If an incinerator other than a catalytic incinerator is used, continuous records of the firebox temperature recorded under § 63.751(b)(9) and all calculated 3-hour averages of the firebox temperature; and

(iii) If a catalytic incinerator is used, continuous records of the temperature recorded under § 63.751(b)(10) and all calculated 3-hour averages of the recorded temperatures.

[60 FR 45956, Sept. 1, 1996, as amended at 63 FR 15023, Mar. 27, 1998; 63 FR 46534, Sept. 1, 1998; 80 FR 76187, Dec. 7, 2015]

§ 63.753 Reporting requirements.

(a)(1) Except as provided in paragraphs (a)(2) through (5) of this section, each owner or operator subject to this subpart shall fulfill the requirements contained in § 63.9(a) through (e) and (h) through (j), Notification requirements, and § 63.10(a), (b), (d), and (f), Recordkeeping and reporting requirements, of the General Provisions, 40 CFR part 63, subpart A, and that the initial notification for existing sources required in § 63.9(b)(2) shall be submitted not later than September 1, 1997, or as specified in § 63.9(b)(2). In addition to the requirements of § 63.9(h), the notification of compliance status shall include:

(i) Information detailing whether the source has operated within the specified ranges of its designated operating parameters.

(ii) For each coating line, where averaging will be used along with the types of quantities of coatings the facility expects to use in the first year of operation. Averaging scheme shall be approved by the Administrator or delegated State authority and shall be included as part of the facility's title V or part 70 permit.

(2) The initial notification for existing sources, required in § 63.9(b)(2) shall be submitted no later than September 1, 1997, or as specified in § 63.9(b)(2). For the purposes of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under § 63.9(b)(2), provided the same information is contained in the permit application as required by § 63.9(b)(2), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notifications.

(3) For the purposes of this subpart, the Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment to a particular time period or postmark deadline submitted under § 63.9(i) within 30 calendar days of receiving sufficient information to evaluate the request, rather than 15 calendar days as provided for in § 63.9(i)(3).

(4) Each owner or operator subject to this subpart is not required to comply with § 63.10(b)(2)(i), (b)(2)(iv), (b)(2)(v), and (d)(5).

(5) If a source fails to meet an applicable standard specified in §§ 63.744 through 63.748, report such events in the semiannual report:

(i) The number of failures to meet an applicable standard.

(ii) For each instance, report the date, time, and duration of each failure.

(iii) For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(b) *Cleaning operation.* Each owner or operator of a cleaning operation subject to this subpart shall submit the following information:

(1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(i) Any instance where a noncompliant cleaning solvent is used for a nonexempt hand-wipe cleaning operation;

(ii) A list of any new cleaning solvents used for hand-wipe cleaning in the previous 6 months and, as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in § 63.744(b)(1);

(iii) Any instance where a noncompliant spray gun cleaning method is used;

(iv) Any instance where a leaking enclosed spray gun cleaner remains unrepaired and in use for more than 15 days; and

(v) If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.

(c) *Primer, topcoat, and specialty coating application operations.* Each owner or operator of a primer or topcoat application operation subject to this subpart shall submit the following information:

(1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(i) For primers, topcoats, and specialty coatings where compliance is not being achieved through the use of averaging or a control device, the HAP or VOC content in manufacturer's supplied data as recorded under § 63.752(c), or each value of H_i and G_i, as recorded under § 63.752(c)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);

(ii) For primers, topcoats, and specialty coatings where compliance is being achieved through the use of averaging, each value of H_a and G_a, as recorded under § 63.752(c)(4)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);

(iii) If incinerators are used to comply with the standards, all periods when the 3-hour average combustion temperature(s) is (are) less than the average combustion temperature(s) established under § 63.751(b) (11) or (12) during the most recent performance test during which compliance was demonstrated;

(iv) If a carbon adsorber is used;

(A) each rolling period when the overall control efficiency of the control system is calculated to be less than 81%, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or,

(B) for nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values.

(v) For control devices other than an incinerator or carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated;

(vi) All times when a primer or topcoat application operation was not immediately shut down when the pressure drop across a dry particulate filter or HEPA filter system, the water flow rate through a conventional waterwash system, or the recommended parameter(s) that indicate the booth performance for pumpless systems, as appropriate, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures;

(vii) If the operations have been in compliance for the semiannual period, a statement that the operations have been in compliance with the applicable standards; and,

(2) Annual reports beginning 12 months after the date of the notification of compliance status listing the number of times the pressure drop or water flow rate for each dry filter or waterwash system, as applicable, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures.

(d) *Depainting operation*. Each owner or operator of a depainting operation subject to this subpart shall submit the following information:

(1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(i) Any 24-hour period where organic HAP were emitted from the depainting of aerospace vehicles, other than from the exempt operations listed in § 63.746 (a), (b)(3), and (b)(5).

(ii) Any new chemical strippers used at the facility during the reporting period;

(iii) The organic HAP content of these new chemical strippers;

(iv) For each chemical stripper that undergoes reformulation, its organic HAP content;

(v) Any new non-chemical depainting technique in use at the facility since the notification of compliance status or any subsequent semiannual report was filed;

(vi) For periods of malfunctions:

(A) The non-chemical method or technique that malfunctioned;

(B) The date that the malfunction occurred;

(C) A description of the malfunction;

(D) The methods used to depaint aerospace vehicles during the malfunction period;

(E) The dates that these methods were begun and discontinued; and

(F) The date that the malfunction was corrected;

(vii) All periods where a nonchemical depainting operation subject to § 63.746(b)(2) and (b)(4) for the control of inorganic HAP emissions was not immediately shut down when the pressure drop, water flow rate, or recommended booth parameter(s) was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operational procedures;

(viii) A list of new and discontinued aircraft models depainted at the facility over the last 6 months and a list of the parts normally removed for depainting for each new aircraft model being depainted; and

(ix) If the depainting operation has been in compliance for the semiannual period, a statement signed by a responsible company official that the operation was in compliance with the applicable standards.

(2) Annual reports occurring every 12 months from the date of the notification of compliance status that identify:

(i) The average volume per aircraft of organic HAP-containing chemical strippers or weight of organic HAP used for spot stripping and decal removal operations if it exceeds the limits specified in § 63.746(b)(3); and

(ii) The number of times the pressure drop limit(s) for each filter system or the number of times the water flow rate limit(s) for each waterwash system were outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures.

(3) Where a control device is used to control organic HAP emissions, semiannual reports that identify:

(i) If a carbon adsorber is used,

(A) each rolling period when the overall control efficiency of the control system is calculated to be less than 81% for existing systems or less than 95% for new systems, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or,

(B) for nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values.

(ii) For control devices other than a carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated;

(iii) Descriptions of any control devices currently in use that were not listed in the notification of compliance status or any subsequent report.

(e) *Chemical milling maskant application operation*. Each owner or operator of a chemical milling maskant application operation subject to this subpart shall submit semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(1) For chemical milling maskants where compliance is not being achieved through the use of averaging or a control device, the HAP or VOC content in manufacturer's supplied data as recorded under § 63.752(f), or each value of H_i and G_i, as recorded under § 63.752(f)(1)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c);

(2) For chemical milling maskants where compliance is being achieved through the use of averaging, each value of H_a and G_a, as recorded under § 63.752(f)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c);

(3) Where a control device is used,

(i) If incinerators are used to comply with the standards, all periods when the 3-hour average combustion temperature(s) is (are) less than the average combustion temperature(s) established under § 63.751(b) (11) or (12) during the most recent performance test during which compliance was demonstrated;

(ii) If a carbon adsorber is used,

(A) Each rolling period when the overall control efficiency of the control system is calculated to be less than 81%, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or,

(B) For nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values.

(iii) For control devices other than an incinerator or carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated;

(4) All chemical milling maskants currently in use that were not listed in the notification of compliance status or any other subsequent semiannual report;

(5) Descriptions of any control devices currently in use that were not listed in the notification of compliance status or any subsequent report; and

(6) If the operations have been in compliance for the semiannual period, a statement that the chemical milling maskant application operation has been in compliance with the applicable standards.

(f) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests following the procedure specified in either paragraph (f)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*http://cdx.epa.gov/*)). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (f).

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

[60 FR 45956, Sept. 1, 1996; 61 FR 4903, Feb. 9, 1996, as amended at 61 FR 66227, Dec. 17, 1996; 63 FR 15023, Mar. 27, 1998; 63 FR 46535, Sept. 1, 1998; 80 FR 76187, Dec. 7, 2015]

§§63.754–63.758 [Reserved]

§63.759 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§63.741, 63.743, 63.744(a)(3), (b) through (e), 63.745 through 63.748, and 63.649(a).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37352, June 23, 2003]

TABLE 1 TO SUBPART GG OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART GG

Reference	Applies to affected sources in subpart GG	Comment
63.1(a)(1)	Yes.	
63.1(a)(2)	Yes.	
63.1(a)(3)	Yes.	
63.1(a)(4)	Yes.	
63.1(a)(5)	No	Reserved.
63.1(a)(6)	Yes.	
63.1(a)(7)	Yes.	
63.1(a)(8)	Yes.	
63.1(a)(9)	No	Reserved.
63.1(a)(10)	Yes.	
63.1(a)(11)	Yes.	
63.1(a)(12)	Yes.	
63.1(a)(13)	Yes.	
63.1(a)(14)	Yes.	
63.1(b)(1)	Yes.	
63.1(b)(2)	Yes.	
63.1(b)(3)	Yes.	
63.1(c)(1)	Yes.	
63.1(c)(2)	Yes	Subpart GG does not apply to area sources.
63.1(c)(3)	No	Reserved.
63.1(c)(4)	Yes.	
63.1(c)(5)	Yes.	
63.1(c)(6)	Yes.	
63.1(d)	No	Reserved.
63.1(e)	Yes.	
63.2	Yes.	
63.3	Yes.	
63.4(a)(1)	Yes.	

Reference	Applies to affected sources in subpart GG	Comment
63.4(a)(2)	Yes.	
63.4(a)(3)	Yes.	
63.4(a)(4)	No	Reserved.
63.4(a)(5)	Yes.	
63.4(b)	Yes.	
63.4(c)	Yes.	
63.5(a)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes.	
63.5(b)(4)	Yes.	
63.5(b)(5)	Yes.	
63.5(b)(6)	Yes.	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	Yes.	
63.5(d)(1)(ii)(A)–(H)	Yes.	
63.5(d)(1)(ii)(I)	No	Reserved.
63.5(d)(1)(ii)(J)	Yes.	
63.5(d)(1)(iii)	Yes.	
63.5(d)(2)–(4)	Yes.	
63.5(e)	Yes.	
63.5(f)	Yes.	
63.6(a)	Yes.	
63.6(b)(1)–(5)	Yes	§ 63.749(a) specifies compliance dates for new sources.
63.6(b)(6)	No	Reserved.
63.6(b)(7)	Yes.	
63.6(c)(1)	Yes.	
63.6(c)(2)	No	The standards in subpart GG are promulgated under section 112(d) of the Act.
63.6(c)(3)–(4)	No	Reserved.
63.6(c)(5)	Yes.	
63.6(d)	No	Reserved.
63.6(e)(1)(i)	No	*See* § 63.743(e) for general duty requirement.
63.6(e)(1)(ii)	No.	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No.	
63.6(f)(1)	No.	
63.6(f)(2)–(f)(3)	Yes.	
63.6(g)	Yes.	
63.6(h)	No	The standards in subpart GG do not include opacity standards.
63.6(i)(1)–(3)	Yes.	
63.6(i)(4)(i)(A)	Yes.	
63.6(i)(4)(i)(B)	No	§ 63.743(a)(4) specifies that requests for extension of compliance must be submitted no later than 120 days before an affected source's compliance date.
63.6(i)(4)(ii)	No	The standards in subpart GG are promulgated under section 112(d) of the Act.
63.6(i)(5)–(12)	Yes.	
63.6(i)(13)	Yes.	
63.6(i)(14)	Yes.	
63.6(i)(15)	No	Reserved.
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)(i)–(vi)	Yes.	
63.7(a)(2)(vii)–(viii)	No	Reserved.
63.7(a)(2)(ix)	Yes.	
63.7(a)(3)	Yes.	
63.7(b)	Yes.	
63.7(c)	Yes.	
63.7(d)	Yes.	
63.7(e)(1)	No	*See* § 63.749(j).
63.7(e)(2)–(4)	Yes.	
63.7(f)	Yes.	
63.7(g)(1)	Yes.	
63.7(g)(2)	No	Reserved.
63.7(g)(3)	Yes.	
63.7(h)	Yes.	
63.8(a)(1)–(2)	Yes.	
63.8(a)(3)	No	Reserved.
63.8(a)(4)	Yes.	
63.8(b)	Yes.	

Reference	Applies to affected sources in subpart GG	Comment
63.8(c)(1)(i)	No.	
63.8(c)(1)(ii)	Yes.	
63.8(c)(1)(iii)	No.	
63.8(c)(2)–(d)(2)	Yes.	
63.8(d)(3)	No.	
63.8(e)(1)–(4)	Yes.	
63.8(e)(5)(i)	Yes.	
63.8(e)(5)(ii)	No	The standards in subpart GG do not include opacity standards.
63.8(f)(1)	Yes.	
63.8(f)(2)(i)–(vii)	Yes.	
63.8(f)(2)(viii)	No	The standards in subpart GG do not include opacity standards.
63.8(f)(2)(ix)	Yes.	
63.8(f)(3)–(6)	Yes.	
63.8(g)	Yes.	
63.9(a)	Yes.	
63.9(b)(1)	Yes.	
63.9(b)(2)	Yes	§ 63.753(a)(1) requires submittal of the initial notification at least 1 year prior to the compliance date; § 63.753(a)(2) allows a title V or part 70 permit application to be substituted for the initial notification in certain circumstances.
63.9(b)(3)	Yes.	
63.9(b)(4)	Yes.	
63.9(b)(5)	Yes.	
63.9(c)	Yes.	
63.9(d)	Yes.	
63.9(e)	Yes.	
63.9(f)	No	The standards in subpart GG do not include opacity standards.
63.9(g)(1)	No.	
63.9(g)(2)	No	The standards in subpart GG do not include opacity standards.
63.9(g)(3)	No.	
63.9(h)(1)–(3)	Yes	§ 63.753(a)(1) also specifies additional information to be included in the notification of compliance status.
63.9(h)(4)	No	Reserved.
63.9(h)(5)–(6)	Yes.	
63.9(i)	Yes.	
63.9(j)	Yes.	
63.9(k)	Yes	Only as specified in § 63.9(j).
63.10(a)	Yes.	
63.10(b)(1)	Yes.	
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No	*See* § 63.752(a) for recordkeeping of (1) date, time, and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
63.10(b)(2)(iii)	Yes.	
63.10(b)(2)(iv)–(v)	No.	
63.10(b)(2)(vi)	Yes.	
63.10(b)(2)(vi)(A)–(C)	No	§ 63.10(b)(vii)(A), (B) and (C) do not apply because subpart GG does not require the use of CEMS.
63.10(b)(2)(vii)–(xiv).		
63.10(b)(3)	Yes.	
63.10(c)(1)	No.	
63.10(c)(2)–(4)	No	Reserved.
63.10(c)(5)–(6)	No.	
63.10(c)(7)–(8)	Yes.	
63.10(c)(9)	No	Reserved.
63.10(c)(10)–(13)	No.	
63.10(c)(14)	No	§ 63.8(d) does not apply to this subpart.
63.10(c)(15)	No.	
63.10(d)(1)–(2)	Yes.	
63.10(d)(3)	No	The standards in subpart GG do not include opacity standards.
63.10(d)(4)	Yes.	
63.10(d)(5)	No	*See* § 63.753(a)(5) for malfunction reporting requirements.
63.(10)(e)(1)	No.	
63.10(e)(2)(i)	No.	
63.10(e)(2)(ii)	No	The standards in subpart GG do not include opacity standards.
63.10(e)(3)	No.	
63.10(e)(4)	No	The standards in subpart GG do not include opacity standards.
63.10(f)	Yes.	
63.11	Yes.	
63.12	Yes.	
63.13	Yes.	

Reference	Applies to affected sources in subpart GG	Comment
63.14	Yes.	
63.15	Yes.	
63.16	Yes.	

[80 FR 76188, Dec. 7, 2015; 85 FR 73894, Nov. 19, 2020]

APPENDIX A TO SUBPART GG OF PART 63—SPECIALTY COATING DEFINITIONS

Ablative coating—A coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame.

Adhesion promoter—A very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material.

Adhesive bonding primer—A primer applied in a thin film to aerospace components for the purpose of corrosion inhibition and increased adhesive bond strength by attachment. There are two categories of adhesive bonding primers: primers with a design cure at 250 °F or below and primers with a design cure above 250 °F.

Aerosol coating—A hand-held, pressurized, nonrefillable container that expels an adhesive or a coating in a finely divided spray when a valve on the container is depressed.

Antichafe coating—A coating applied to areas of moving aerospace components that may rub during normal operations or installation.

Bearing coating—A coating applied to an antifriction bearing, a bearing housing, or the area adjacent to such a bearing in order to facilitate bearing function or to protect base material from excessive wear. A material shall not be classified as a bearing coating if it can also be classified as a dry lubricative material or a solid film lubricant.

Bonding maskant—A temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding.

Caulking and smoothing compounds—Semisolid materials which are applied by hand application methods and are used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a caulking and smoothing compound if it can also be classified as a sealant.

Chemical agent-resistant coating (CARC)—An exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents.

Clear coating—A transparent coating usually applied over a colored opaque coating, metallic substrate, or placard to give improved gloss and protection to the color coat. In some cases, a clearcoat refers to any transparent coating without regard to substrate.

Commercial exterior aerodynamic structure primer—A primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae, and landing gear and doors, for the purpose of extended corrosion protection and enhanced adhesion.

Commercial interior adhesive—Materials used in the bonding of passenger cabin interior components. These components must meet the FAA fireworthiness requirements.

Compatible substrate primer—Includes two categories: compatible epoxy primer and adhesive primer. *Compatible epoxy primer* is primer that is compatible with the filled elastomeric coating and is epoxy based. The compatible substrate primer is an epoxy-polyamide primer used to promote adhesion of elastomeric coatings such as impact-resistant coatings. *Adhesive primer* is a coating that (1) inhibits corrosion and serves as a primer applied to bare metal surfaces or prior to adhesive application, or (2) is applied to surfaces that can be expected to contain fuel. Fuel tank coatings are excluded from this category.

Corrosion prevention system—A coating system that provides corrosion protection by displacing water and penetrating mating surfaces, forming a protective barrier between the metal surface and moisture. Coatings containing oils or waxes are excluded from this category.

Critical use and line sealer maskant—A temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling and processing of magnesium, titanium, high-strength steel, high-precision aluminum chemical milling of deep cuts, and aluminum chemical milling of complex shapes. Materials used for repairs or to bridge gaps left by scribing operations (i.e. line sealer) are also included in this category.

Cryogenic flexible primer—A primer designed to provide corrosion resistance, flexibility, and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (−275 °F and below).

Cryoprotective coating—A coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry, and prevent ice formation.

Cyanoacrylate adhesive—A fast-setting, single component adhesive that cures at room temperature. Also known as ''super glue.''

Dry lubricative material—A coating consisting of lauric acid, cetyl alcohol, waxes, or other non-cross linked or resin-bound materials which act as a dry lubricant.

Electric or radiation-effect coating—A coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include, but are not limited to, lightning strike protection, electromagnetic pulse (EMP) protection, and radar avoidance. Coatings that have been designated as ''Classified National Security Information'' by the Department of Defense are exempt.

Electrostatic discharge and electromagnetic interference (EMI) coating—A coating applied to aerospace vehicles and components to disperse static energy or reduce electromagnetic interference.

Elevated-temperature Skydrol-resistant commercial primer—A primer applied primarily to commercial aircraft (or commercial aircraft adapted for military use) that must withstand immersion in phosphate-ester (PE) hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150 °F for 1,000 hours.

Epoxy polyamide topcoat—A coating used where harder films are required or in some areas where engraving is accomplished in camouflage colors.

Fire-resistant (interior) coating—For civilian aircraft, fire-resistant interior coatings are used on passenger cabin interior parts that are subject to the FAA fireworthiness requirements. For military aircraft, fire-resistant interior coatings are used on parts subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721. For space applications, these coatings are used on parts subject to the flammability requirements of SE-R-0006 and SSP 30233.

Flexible primer—A primer that meets flexibility requirements such as those needed for adhesive bond primed fastener heads or on surfaces expected to contain fuel. The flexible coating is required because it provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings as well as a flexible bridge between the fasteners, skin, and skin-to-skin joints on outer aircraft skins. This flexible bridge allows more topcoat flexibility around fasteners and decreases the chance of the topcoat cracking around the fasteners. The result is better corrosion resistance.

Flight test coating—A coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation.

Fuel tank adhesive—An adhesive used to bond components exposed to fuel and that must be compatible with fuel tank coatings.

Fuel tank coating—A coating applied to fuel tank components to inhibit corrosion and/or bacterial growth and to assure sealant adhesion in extreme environmental conditions.

High temperature coating—A coating designed to withstand temperatures of more than 350 °F.

Insulation covering—Material that is applied to foam insulation to protect the insulation from mechanical or environmental damage.

Intermediate release coating—A thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and generally to allow the use of less hazardous depainting methods.

Lacquer—A clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction. Lacquers are resoluble in their original solvent.

Metalized epoxy coating—A coating that contains relatively large quantities of metallic pigmentation for appearance and/or added protection.

Mold release—A coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed.

Nonstructural adhesive—An adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories.

Optical anti-reflection coating—A coating with a low reflectance in the infrared and visible wavelength ranges, which is used for anti-reflection on or near optical and laser hardware.

Part marking coating—Coatings or inks used to make identifying markings on materials, components, and/or assemblies. These markings may be either permanent or temporary.

Pretreatment coating—An organic coating that contains at least 0.5 percent acids by weight and is applied directly to metal or composite surfaces to provide surface etching, corrosion resistance, adhesion, and ease of stripping.

Rain erosion-resistant coating—A coating or coating system used to protect the leading edges of parts such as flaps, stabilizers, radomes, engine inlet nacelles, etc. against erosion caused by rain impact during flight.

Rocket motor bonding adhesive—An adhesive used in rocket motor bonding applications.

Rocket motor nozzle coating—A catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles.

Rubber-based adhesive—Quick setting contact cements that provide a strong, yet flexible, bond between two mating surfaces that may be of dissimilar materials.

Scale inhibitor—A coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of scale.

Screen print ink—Inks used in screen printing processes during fabrication of decorative laminates and decals.

Seal coat maskant—An overcoat applied over a maskant to improve abrasion and chemical resistance during production operations.

Sealant—A material used to prevent the intrusion of water, fuel, air, or other liquids or solids from certain areas of aerospace vehicles or components. There are two categories of sealants: extrudable/rollable/brushable sealants and sprayable sealants.

Silicone insulation material—Insulating material applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. These materials differ from ablative coatings in that they are not ''sacrificial.''

Solid film lubricant—A very thin coating consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.

Specialized function coatings—Coatings that fulfill extremely specific engineering requirements that are limited in application and are characterized by low volume usage. This category excludes coatings covered in other Specialty Coating categories.

Structural autoclavable adhesive—An adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave.

Structural nonautoclavable adhesive—An adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or for other critical functions, such as nonstructural bonding in the proximity of engines.

Temporary protective coating—A coating applied to provide scratch or corrosion protection during manufacturing, storage, or transportation. Two types include peelable protective coatings and alkaline removable coatings. These materials are not intended to protect against strong acid or alkaline solutions. Coatings that provide this type of protection from chemical processing are not included in this category.

Thermal control coating—Coatings formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate.

Touch-up and Repair Coating—A coating used to cover minor coating imperfections appearing after the main coating operation.

Wet fastener installation coating—A primer or sealant applied by dipping, brushing, or daubing to fasteners that are installed before the coating is cured.

Wing coating—A corrosion-resistant topcoat that is resilient enough to withstand the flexing of the wings.

[63 FR 15026, Mar. 27, 1998, as amended at 80 FR 76191, Dec. 7, 2015]

Subpart HH—National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities

SOURCE: 64 FR 32628, June 17, 1999, unless otherwise noted.

§ 63.760 Applicability and designation of affected source.

(a) This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and either (a)(2) or (a)(3) of this section.

(1) Facilities that are major or area sources of hazardous air pollutants (HAP) as defined in §63.761. Emissions for major source determination purposes can be estimated using the maximum natural gas or hydrocarbon liquid throughput, as appropriate, calculated in paragraphs (a)(1)(i) through (iii) of this section. As an alternative to calculating the maximum natural gas or hydrocarbon liquid throughput, the owner or operator of a new or existing source may use the facility's design maximum natural gas or hydrocarbon liquid throughput to estimate the maximum potential emissions. Other means to determine the facility's major source status are allowed, provided the information is documented and recorded to the Administrator's satisfaction in accordance with §63.10(b)(3). A facility that is determined to be an area source, but subsequently increases its emissions or its potential to emit above the major source levels, and becomes a major

source, must comply with all provisions of this subpart applicable to a major source starting on the applicable compliance date specified in paragraph (f) of this section. Nothing in this paragraph is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(i) If the owner or operator documents, to the Administrator's satisfaction, a decline in annual natural gas or hydrocarbon liquid throughput, as appropriate, each year for the 5 years prior to October 15, 2012, the owner or operator shall calculate the maximum natural gas or hydrocarbon liquid throughput used to determine maximum potential emissions according to the requirements specified in paragraph (a)(1)(i)(A) of this section. In all other circumstances, the owner or operator shall calculate the maximum throughput used to determine whether a facility is a major source in accordance with the requirements specified in paragraph (a)(1)(i)(B) of this section.

(A) The maximum natural gas or hydrocarbon liquid throughput is the average of the annual natural gas or hydrocarbon liquid throughput for the 3 years prior to October 15, 2012, multiplied by a factor of 1.2.

(B) The maximum natural gas or hydrocarbon liquid throughput is the highest annual natural gas or hydrocarbon liquid throughput over the 5 years prior to October 15, 2012, multiplied by a factor of 1.2.

(ii) The owner or operator shall maintain records of the annual facility natural gas or hydrocarbon liquid throughput each year and upon request submit such records to the Administrator. If the facility annual natural gas or hydrocarbon liquid throughput increases above the maximum natural gas or hydrocarbon liquid throughput calculated in paragraph (a)(1)(i)(A) or (a)(1)(i)(B) of this section, the maximum natural gas or hydrocarbon liquid throughput must be recalculated using the higher throughput multiplied by a factor of 1.2.

(iii) The owner or operator shall determine the maximum values for other parameters used to calculate emissions as the maximum for the period over which the maximum natural gas or hydrocarbon liquid throughput is determined in accordance with paragraph (a)(1)(i)(A) or (B) of this section. Parameters, other than glycol circulation rate, shall be based on either highest measured values or annual average. For estimating maximum potential emissions from glycol dehydration units, the glycol circulation rate used in the calculation shall be the unit's maximum rate under its physical and operational design consistent with the definition of potential to emit in § 63.2.

(2) Facilities that process, upgrade, or store hydrocarbon liquids.

(3) Facilities that process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. For the purposes of this subpart, natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, when present. If no natural gas processing plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer.

(b) The affected sources for major sources are listed in paragraph (b)(1) of this section and for area sources in paragraph (b)(2) of this section.

(1) For major sources, the affected source shall comprise each emission point located at a facility that meets the criteria specified in paragraph (a) of this section and listed in paragraphs (b)(1)(i) through (b)(1)(iv) of this section.

(i) Each glycol dehydration unit as specified in paragraphs (b)(1)(i)(A) through (C) of this section.

(A) Each large glycol dehydration unit;

(B) Each small glycol dehydration unit for which construction commenced on or before August 23, 2011, is an existing small glycol dehydration unit; and

(C) Each small glycol dehydration unit for which construction commenced after August 23, 2011, is a new small glycol dehydration unit.

(ii) Each storage vessel with the potential for flash emissions;

(iii) The group of all ancillary equipment, except compressors, intended to

operate in volatile hazardous air pollutant service (as defined in § 63.761), which are located at natural gas processing plants; and

(iv) Compressors intended to operate in volatile hazardous air pollutant service (as defined in § 63.761), which are located at natural gas processing plants.

(2) For area sources, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in paragraph (a) of this section.

(c) Any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (*i.e.*, 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.

(d) The owner and operator of a facility that does not contain an affected source as specified in paragraph (b) of this section are not subject to the requirements of this subpart.

(e) *Exemptions.* The facilities listed in paragraphs (e)(1) and (e)(2) of this section are exempt from the requirements of this subpart. Records shall be maintained as required in § 63.10(b)(3).

(1) A facility that exclusively processes, stores, or transfers black oil (as defined in § 63.761) is not subject to the requirements of this subpart. For the purposes of this subpart, a black oil facility that uses natural gas for fuel or generates gas from black oil shall qualify for this exemption.

(2) A major source facility, prior to the point of custody transfer, with a facility-wide actual annual average natural gas throughput less than 18.4 thousand standard cubic meters per day and a facility-wide actual annual average hydrocarbon liquid throughput less than 39,700 liters per day.

(f) The owner or operator of an affected major source shall achieve compliance with the provisions of this subpart by the dates specified in paragraphs (f)(1), (2), and (f)(7) through (9) of this section. The owner or operator of an affected area source shall achieve compliance with the provisions of this subpart by the dates specified in paragraphs (f)(3) through (6) of this section.

(1) Except as specified in paragraphs (f)(7) through (9) of this section, the owner or operator of an affected major source, the construction or reconstruction of which commenced before February 6, 1998, shall achieve compliance with the applicable provisions of this subpart no later than June 17, 2002, except as provided for in § 63.6(i). The owner or operator of an area source, the construction or reconstruction of which commenced before February 6, 1998, that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart 3 years after becoming a major source.

(2) Except as specified in paragraphs (f)(7) through (9) of this section, the owner or operator of an affected major source, the construction or reconstruction of which commences on or after February 6, 1998, shall achieve compliance with the applicable provisions of this subpart immediately upon initial startup or June 17, 1999, whichever date is later. Area sources, other than production field facilities identified in (f)(9) of this section, the construction or reconstruction of which commences on or after February 6, 1998, that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(3) The owner or operator of an affected area source, located in an Urban-1 county, as defined in § 63.761, the construction or reconstruction of which commences before February 6, 1998, shall achieve compliance with the provisions of this subpart no later than the dates specified in paragraphs (f)(3)(i) or (ii) of this section, except as provided for in § 63.6(i).

(i) If the affected area source is located within any UA plus offset and UC boundary, as defined in § 63.761, the compliance date is January 4, 2010.

(ii) If the affected area source is not located within any UA plus offset and UC boundary, as defined in § 63.761, the compliance date is January 5, 2009.

(4) The owner or operator of an affected area source, located in an

Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences on or after February 6, 1998, shall achieve compliance with the provisions of this subpart immediately upon initial startup or January 3, 2007, whichever date is later.

(5) The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences before July 8, 2005, shall achieve compliance with the provisions of this subpart no later than the dates specified in paragraphs (f)(5)(i) or (ii) of this section, except as provided for in §3.6(i).

(i) If the affected area source is located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 4, 2010.

(ii) If the affected area source is not located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 5, 2009.

(6) The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences on or after July 8, 2005, shall achieve compliance with the provisions of this subpart immediately upon initial startup or January 3, 2007, whichever date is later.

(7) Each affected existing small glycol dehydration unit, as defined in §63.761, located at a major source, that commenced construction before August 23, 2011, must achieve compliance no later than October 15, 2015, except as provided in §63.6(i).

(8) Each affected new small glycol dehydration unit, as defined in §63.761, located at a major source, that commenced construction on or after August 23, 2011, must achieve compliance immediately upon initial startup or October 15, 2012, whichever is later.

(9) A production field facility, as defined in §63.761, constructed on or before August 23, 2011, that was previously determined to be an area source but becomes a major source (as defined in paragraph 3 of the major source definition in §63.761) on the October 15, 2012 must achieve compliance no later than October 15, 2015, except as provided in §63.6(i).

(g) The following provides owners or operators of an affected source at a major source with information on overlap of this subpart with other regulations for equipment leaks. The owner or operator of an affected source at a major source shall document that they are complying with other regulations by keeping the records specified in §63.774(b)(9).

(1) [Reserved]

(2) After the compliance dates specified in paragraph (f) of this section, ancillary equipment and compressors that are subject to this subpart and are also subject to and controlled under the provisions of 40 CFR part 61, subpart V, are only required to comply with the requirements of 40 CFR part 61, subpart V.

(3) After the compliance dates specified in paragraph (f) of this section, ancillary equipment and compressors that are subject to this subpart and are also subject to and controlled under the provisions of 40 CFR part 63, subpart H, are only required to comply with the requirements of 40 CFR part 63, subpart H.

(h) An owner or operator of an affected source that is a major source or is located at a major source and is subject to the provisions of this subpart is also subject to 40 CFR part 70 or part 71 operating permit requirements. Unless otherwise required by law, the owner or operator of an area source subject to the provisions of this subpart is exempt from the permitting requirements established by 40 CFR part 70 or 40 CFR part 71.

(i) Emissions standards in this subpart apply at all times.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34550, June 29, 2001; 72 FR 36, Jan. 3, 2007; 77 FR 49568, Aug. 16, 2012; 85 FR 73894, Nov. 19, 2020; 89 FR 84296, Oct. 22, 2024]

§63.761 Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act (Act), subpart A of this part (General Provisions), and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Alaskan North Slope means the approximately 180,000 square kilometer

area (69,000 square mile area) extending from the Brooks Range to the Arctic Ocean.

Ancillary equipment means any of the following pieces of equipment: pumps, pressure relief devices, sampling connection systems, open-ended valves, or lines, valves, flanges, or other connectors.

API gravity means the weight per unit volume of hydrocarbon liquids as measured by a system recommended by the American Petroleum Institute (API) and is expressed in degrees.

Associated equipment, as used in this subpart and as referred to in section 112(n)(4) of the Act, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the wellbore to the point of custody transfer, except glycol dehydration units and storage vessels.

Black oil means hydrocarbon (petroleum) liquid with an initial producing gas-to-oil ratio (GOR) less than 0.31 cubic meters per liter and an API gravity less than 40 degrees.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering and exporting thermal energy in the form of steam or hot water. Boiler also means any industrial furnace as defined in 40 CFR 260.10.

BTEX means benzene, toluene, ethyl benzene and xylene.

Closed-vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and if necessary, flow inducing devices that transport gas or vapor from an emission point to one or more control devices. If gas or vapor from regulated equipment is routed to a process (e.g., to a fuel gas system), the conveyance system shall not be considered a closed-vent system and is not subject to closed-vent system standards.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic HAP emissions.

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature, pressure, or both, and remains liquid at standard conditions, as specified in § 63.2.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every hour or records hourly or more frequent block average values.

Control device means any equipment used for recovering or oxidizing HAP or volatile organic compound (VOC) vapors. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For the purposes of this subpart, if gas or vapor from regulated equipment is used, reused (i.e., injected into the flame zone of an enclosed combustion device), returned back to the process, or sold, then the recovery system used, including piping, connections, and flow inducing devices, is not considered to be a control device or closed-vent system.

Cover means a device which is placed on top of or over a material such that the entire surface area of the material is enclosed and sealed. A cover may have openings (such as access hatches, sampling ports, and gauge wells) if those openings are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is installed, provided that each opening is closed and sealed when the opening is not in use. In addition, a cover may have one or more safety devices. Examples of a cover include, but are not limited to, a fixed-roof installed on a tank, an external floating roof installed on a tank, and a lid installed on a drum or other container.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: after processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Equipment leaks means emissions of HAP from ancillary equipment (as defined in this section) and compressors.

Facility means any grouping of equipment where hydrocarbon liquids are processed, upgraded (i.e., remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For the purpose of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Field natural gas means natural gas extracted from a production well prior to entering the first stage of processing, such as dehydration.

Fixed-roof means a cover that is mounted on a storage vessel in a stationary manner and that does not move with fluctuations in liquid level.

Flame zone means the portion of the combustion chamber in a combustion device occupied by the flame envelope.

Flare means a thermal oxidation system using an open flame (*i.e.*, without enclosure).

Flash tank. See the definition for gas-condensate-glycol (GCG) separator.

Flow indicator means a device which indicates whether gas flow is present in a line or whether the valve position would allow gas flow to be present in a line.

Gas-condensate-glycol (GCG) separator means a two- or three-phase separator through which the ''rich'' glycol stream of a glycol dehydration unit is passed to remove entrained gas and hydrocarbon liquid. The GCG separator is commonly referred to as a flash separator or flash tank.

Gas-to-oil ratio (GOR) means the number of standard cubic meters of gas produced per liter of crude oil or other hydrocarbon liquid.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes ''rich'' glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The ''lean'' glycol is then recycled.

Glycol dehydration unit baseline operations means operations representative of the large glycol dehydration unit operations as of June 17, 1999 and the small glycol dehydrator unit operations as of August 23, 2011. For the purposes of this subpart, for determining the percentage of overall HAP emission reduction attributable to process modifications, baseline operations shall be parameter values (including, but not limited to, glycol circulation rate or glycol-HAP absorbency) that represent actual long-term conditions (*i.e.*, at least 1 year). Glycol dehydration units in operation for less than 1 year shall document that the parameter values represent expected long-term operating conditions had process modifications not been made.

Glycol dehydration unit process vent means the glycol dehydration unit reboiler vent and the vent from the GCG separator (flash tank), if present.

Glycol dehydration unit reboiler vent means the vent through which exhaust from the reboiler of a glycol dehydration unit passes from the reboiler to the atmosphere or to a control device.

Hazardous air pollutants or *HAP* means the chemical compounds listed in section 112(b) of the Clean Air Act.

All chemical compounds listed in section 112(b) of the Act need to be considered when making a major source determination. Only the HAP compounds listed in Table 1 of this subpart need to be considered when determining compliance.

Hydrocarbon liquid means any naturally occurring, unrefined petroleum liquid.

In VHAP service means that a piece of ancillary equipment or compressor either contains or contacts a fluid (liquid or gas) which has a total volatile HAP (VHAP) concentration equal to or greater than 10 percent by weight as determined according to the provisions of § 63.772(a).

In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction of natural gas liquids.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas. The above energy recovery section limitation does not apply to an energy recovery section used solely to preheat the incoming vent stream or combustion air.

Initial producing GOR means the producing standard cubic meters of gas per liter at the time that the reservoir pressure is above the bubble point pressure (or dewpoint pressure for a gas).

Initial startup means the first time a new or reconstructed source begins production. For the purposes of this subpart, initial startup does not include subsequent startups (as defined in this section) of equipment, for example, following malfunctions or shutdowns.

Large glycol dehydration unit means a glycol dehydration unit with an actual annual average natural gas flowrate equal to or greater than 85 thousand standard cubic meters per day and actual annual average benzene emissions equal to or greater than 0.90 Mg/yr, determined according to § 63.772(b). A glycol dehydration unit complying with the 0.9 Mg/yr control option under § 63.765(b)(1)(ii) is considered to be a large dehydrator.

Major source, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment, as defined in this section), and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) Emissions from processes, operations, or equipment that are not part of the same facility, as defined in this section, shall not be aggregated; and

(3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage vessels shall be aggregated for a major source determination. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated for a major source determination.

Natural gas means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

Natural gas liquids (NGL) means the liquid hydrocarbons, such as ethane, propane, butane, pentane, natural gasoline, and condensate that are extracted from field natural gas.

Natural gas processing plant (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, or the fractionation of mixed NGL to natural gas products, or a combination of both.

No detectable emissions means no escape of HAP from a device or system to the atmosphere as determined by:

(1) Instrument monitoring results in accordance with the requirements of § 63.772(c); and

(2) The absence of visible openings or defects in the device or system, such as rips, tears, or gaps.

Operating parameter value means a minimum or maximum value established for a control device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, indicates that an owner or operator has complied with an applicable operating parameter limitation, over the appropriate averaging period as specified in § 63.772(f) or (g).

Operating permit means a permit required by 40 CFR part 70 or part 71.

Organic monitoring device means an instrument used to indicate the concentration level of organic compounds exiting a control device based on a detection principle such as infra-red, photoionization, or thermal conductivity.

Primary fuel means the fuel that provides the principal heat input (i.e., more than 50 percent) to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed device using a controlled flame, the primary purpose of which is to transfer heat to a process fluid or process material that is not a fluid, or to a heat transfer material for use in a process (rather than for steam generation).

Produced water means water that is extracted from the earth from an oil or natural gas production well, or that is separated from crude oil, condensate, or natural gas after extraction.

Production field facilities means those facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Reciprocating compressor means a piece of equipment that increases the pressure of a process gas by positive displacement, employing linear movement of the drive shaft.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representatives is approved in advance by the permitting authority;

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(3) For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected sources:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions under title IV of the Act or the regulations promulgated thereunder are concerned; and

(ii) The designated representative for any other purposes under part 70.

Safety device means a device that meets both of the following conditions: it is not used for planned or routine venting of liquids, gases, or fumes from the unit or equipment on which the device is installed; and it remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the unit or equipment on which the device is installed in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. Examples of unplanned events which may require a safety device to open include failure of an essential equipment component or a sudden power outage.

Shutdown means for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair, the cessation of operation of a

glycol dehydration unit, or other affected source under this subpart, or equipment required or used solely to comply with this subpart.

Small glycol dehydration unit means a glycol dehydration unit, located at a major source, with an actual annual average natural gas flowrate less than 85 thousand standard cubic meters per day or actual annual average benzene emissions less than 0.90 Mg/yr, determined according to § 63.772(b).

Startup means the setting into operation of a glycol dehydration unit, or other affected equipment under this subpart, or equipment required or used to comply with this subpart. Startup includes initial startup and operation solely for the purpose of testing equipment.

Storage vessel means a tank or other vessel that is designed to contain an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water and that is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) that provide structural support. The following process units are not considered storage vessels: Surge control vessels and knockout vessels.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank GOR equal to or greater than 0.31 cubic meters per liter and an API gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Tank battery means a collection of equipment used to separate, treat, store, and transfer crude oil, condensate, natural gas, and produced water. A tank battery typically receives crude oil, condensate, natural gas, or some combination of these extracted products from several production wells for accumulation and separation prior to transmission to a natural gas plant or petroleum refinery. A tank battery may or may not include a glycol dehydration unit.

Temperature monitoring device means an instrument used to monitor temperature and having a minimum accuracy of ±2 percent of the temperature being monitored expressed in °C, or ±2.5 °C, whichever is greater. The temperature monitoring device may measure temperature in degrees Fahrenheit or degrees Celsius, or both.

Total organic compounds or *TOC*, as used in this subpart, means those compounds which can be measured according to the procedures of Method 18, 40 CFR part 60, appendix A.

UA plus offset and UC is defined as the area occupied by each urbanized area, each urban cluster that contains at least 10,000 people, and the area located two miles or less from each urbanized area boundary.

Urban-1 County is defined as a county that contains a part of a Metropolitan Statistical Area with a population greater than 250,000, based on the Office of Management and Budget's *Standards for defining Metropolitan and Micropolitan Statistical Areas* (December 27, 2000), and Census 2000 Data released by the U.S. Census Bureau.

Urbanized area refers to Census 2000 Urbanized Area, which is defined in the *Urban Area Criteria for Census 2000* (March 15, 2002). Essentially, an urbanized area consists of densely settled territory with a population of at least 50,000 people.

Urban cluster refers to a Census 2000 Urban Cluster, which is defined in the *Urban Area Criteria for Census 2000* (March 15, 2002). Essentially, an urban cluster consists of densely settled territory with at least 2,500 people but fewer than 50,000 people.

Volatile hazardous air pollutant concentration or *VHAP concentration* means the fraction by weight of all HAP contained in a material as determined in accordance with procedures specified in § 63.772(a).

[64 FR 32628, June 17, 1999, as amended at 66 FR 34551, June 29, 2001; 72 FR 37, Jan. 3, 2007; 77 FR 49569, Aug. 16, 2012; 89 FR 84296, Oct. 22, 2024]

§§ 63.762–63.763 [Reserved]

§ 63.764 General standards.

(a) Table 2 of this subpart specifies the provisions of subpart A (General Provisions) of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart.

(b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in § 63.13. Reports may be submitted on electronic media.

(c) Except as specified in paragraph (e) of this section, the owner or operator of an affected source located at an existing or new major source of HAP emissions shall comply with the standards in this subpart as specified in paragraphs (c)(1) through (3) of this section.

(1) For each glycol dehydration unit process vent subject to this subpart, the owner or operator shall comply with the requirements specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) The owner or operator shall comply with the control requirements for glycol dehydration unit process vents specified in § 63.765;

(ii) The owner or operator shall comply with the monitoring requirements specified in § 63.773; and

(iii) The owner or operator shall comply with the recordkeeping and reporting requirements specified in §§ 63.774 and 63.775.

(2) For each storage vessel with the potential for flash emissions subject to this subpart, the owner or operator shall comply with the requirements specified in paragraphs (c)(2)(i) through (iii) of this section.

(i) The control requirements for storage vessels specified in § 63.766;

(ii) The monitoring requirements specified in § 63.773; and

(iii) The recordkeeping and reporting requirements specified in §§ 63.774 and 63.775.

(3) For ancillary equipment (as defined in § 63.761) and compressors at a natural gas processing plant subject to this subpart, the owner or operator shall comply with the requirements for equipment leaks specified in § 63.769.

(d) Except as specified in paragraph (e)(1) of this section, the owner or operator of an affected source located at an existing or new area source of HAP emissions shall comply with the applicable standards specified in paragraph (d) of this section.

(1) Each owner or operator of an area source located within an UA plus offset and UC boundary (as defined in § 63.761) shall comply with the provisions specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) The control requirements for glycol dehydration unit process vents specified in § 63.765;

(ii) The monitoring requirements specified in § 63.773; and

(iii) The recordkeeping and reporting requirements specified in §§ 63.774 and 63.775.

(2) Each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in § 63.761) shall comply with paragraphs (d)(2)(i) through (iii) of this section.

(i) Determine the optimum glycol circulation rate using the following equation:

$$L_{OPT} = 1.15 * 3.0 \frac{\text{gal TEG}}{\text{lb } H_2O} * \left(\frac{F * (I - O)}{24 \text{ hr/day}} \right)$$

Where:

L_{OPT} = Optimal circulation rate, gal/hr.
F = Gas flowrate (MMSCF/D).
I = Inlet water content (lb/MMSCF).
O = Outlet water content (lb/MMSCF).
3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal TEG/lb H_2O).
1.15 = Adjustment factor included for a margin of safety.

(ii) Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with paragraph (d)(2)(i) of this section. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with paragraph (d)(2)(i), the owner or operator must calculate an alternate circulation rate using GRI–GLYCalc™, Version 3.0 or higher. The owner or operator must document why the TEG dehydration unit must be operated using the alternate circulation rate

and submit this documentation with the initial notification in accordance with § 63.775(c)(7).

(iii) Maintain a record of the determination specified in paragraph (d)(2)(ii) in accordance with the requirements in § 63.774(f) and submit the Initial Notification in accordance with the requirements in § 63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with paragraph (d)(2)(i) or (ii) of this section and submit the information specified under § 63.775(c)(7)(ii) through (v).

(e) *Exemptions.* (1) The owner or operator of an area source is exempt from the requirements of paragraph (d) of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in § 63.774(d)(1).

(i) The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in § 63.772(b)(1) of this subpart; or

(ii) The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in § 63.772(b)(2) of this subpart.

(2) The owner or operator is exempt from the requirements of paragraph (c)(3) of this section for ancillary equipment (as defined in § 63.761) and compressors at a natural gas processing plant subject to this subpart if the criteria listed in paragraph (e)(2)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in § 63.774(d)(2).

(i) Any ancillary equipment and compressors that contain or contact a fluid (liquid or gas) must have a total VHAP concentration less than 10 percent by weight, as determined by the procedures specified in § 63.772(a); or

(ii) That ancillary equipment and compressors must operate in VHAP service less than 300 hours per calendar year.

(f) Each owner or operator of a major HAP source subject to this subpart is required to apply for a 40 CFR part 70 or part 71 operating permit from the appropriate permitting authority. If the Administrator has approved a State operating permit program under 40 CFR part 70, the permit shall be obtained from the State authority. If a State operating permit program has not been approved, the owner or operator of a source shall apply to the EPA Regional Office pursuant to 40 CFR part 71.

(g)–(h) [Reserved]

(i) In all cases where the provisions of this subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this standard to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of this subpart.

(j) At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34551, June 29, 2001; 72 FR 38, Jan. 3, 2007; 77 FR 49570, Aug. 16, 2012]

§ 63.765 Glycol dehydration unit process vent standards.

(a) This section applies to each glycol dehydration unit subject to this subpart that must be controlled for air emissions as specified in either paragraph (c)(1)(i) or paragraph (d)(1)(i) of § 63.764.

(b) Except as provided in paragraph (c) of this section, an owner or operator of a glycol dehydration unit process vent shall comply with the requirements specified in paragraphs (b)(1) and (b)(2) of this section.

(1) For each glycol dehydration unit process vent, the owner or operator shall control air emissions by either paragraph (b)(1)(i), (ii), or (iii) of this section.

(i) The owner or operator of a large glycol dehydration unit, as defined in § 63.761, shall connect the process vent to a control device or a combination of control devices through a closed-vent system. The closed-vent system shall be designed and operated in accordance with the requirements of § 63.771(c). The control device(s) shall be designed and operated in accordance with the requirements of § 63.771(d).

(ii) The owner or operator of a large glycol dehydration unit shall connect the process vent to a control device or combination of control devices through a closed-vent system and the outlet benzene emissions from the control device(s) shall be reduced to a level less than 0.90 megagrams per year. The closed-vent system shall be designed and operated in accordance with the requirements of § 63.771(c). The control device(s) shall be designed and operated in accordance with the requirements of § 63.771(d), except that the performance levels specified in § 63.771(d)(1)(i) and (ii) do not apply.

(iii) You must limit BTEX emissions from each existing small glycol dehydration unit process vent, as defined in § 63.761, to the limit determined in Equation 1 of this section. You must limit BTEX emissions from each new small glycol dehydration unit process vent, as defined in § 63.761, to the limit determined in Equation 2 of this section. The limits determined using Equation 1 or Equation 2 must be met in accordance with one of the alternatives specified in paragraphs (b)(1)(iii)(A) through (D) of this section.

$$EL_{BTEX} = 3.28x10^{-4} * Throughput * C_{i,BTEX} * 365\ \frac{days}{yr} * \frac{1\ Mg}{1x10^{6}\ grams}$$

Equation 1

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

3.28×10^{-4} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day.

$C_{i,BTEX}$ = average annual BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

$$EL_{BTEX} = 4.66x10^{-6} * Throughput * C_{i,BTEX} * 365\ \frac{days}{yr} * \frac{1\ Mg}{1x10^{6}\ grams}$$

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

4.66×10^{-6} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day.

$C_{i,BTEX}$ = average annual BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

(A) Connect the process vent to a control device or combination of control devices through a closed-vent system. The closed vent system shall be designed and operated in accordance with the requirements of § 63.771(c). The control device(s) shall be designed and operated in accordance with the requirements of § 63.771(f).

(B) Meet the emissions limit through process modifications in accordance with the requirements specified in § 63.771(e).

(C) Meet the emissions limit for each small glycol dehydration unit using a combination of process modifications and one or more control devices through the requirements specified in paragraphs (b)(1)(iii)(A) and (B) of this section.

(D) Demonstrate that the emissions limit is met through actual uncontrolled operation of the small glycol dehydration unit. Document operational parameters in accordance with the requirements specified in § 63.771(e) and emissions in accordance with the requirements specified in § 63.772(b)(2).

(2) One or more safety devices that vent directly to the atmosphere may be used on the air emission control equipment installed to comply with paragraph (b)(1) of this section.

(c) As an alternative to the requirements of paragraph (b) of this section, the owner or operator may comply with one of the requirements specified in paragraphs (c)(1) through (3) of this section.

(1) The owner or operator shall control air emissions by connecting the process vent to a process natural gas line.

(2) The owner or operator shall demonstrate, to the Administrator's satisfaction, that the total HAP emissions to the atmosphere from the large glycol dehydration unit process vent are reduced by 95.0 percent through process modifications, or a combination of process modifications and one or more control devices, in accordance with the requirements specified in § 63.771(e).

(3) Control of HAP emissions from a GCG separator (flash tank) vent is not required if the owner or operator demonstrates, to the Administrator's satisfaction, that total emissions to the atmosphere from the glycol dehydration unit process vent are reduced by one of the levels specified in paragraph (c)(3)(i) through (iv) of this section, through the installation and operation of controls as specified in paragraph (b)(1) of this section.

(i) For any large glycol dehydration unit, HAP emissions are reduced by 95.0 percent or more.

(ii) For any large glycol dehydration unit, benzene emissions are reduced to a level less than 0.90 megagrams per year.

(iii) For each existing small glycol dehydration unit, BTEX emissions are reduced to a level less than the limit calculated by Equation 1 of paragraph (b)(1)(iii) of this section.

(iv) For each new small glycol dehydration unit, BTEX emissions are reduced to a level less than the limit calculated by Equation 2 of paragraph (b)(1)(iii) of this section.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34551, June 29, 2001; 72 FR 38, Jan. 3, 2007; 77 FR 49570, Aug. 16, 2012]

§ 63.766 Storage vessel standards.

(a) This section applies to each storage vessel with the potential for flash emissions (as defined in § 63.761) subject to this subpart.

(b) The owner or operator of a storage vessel with the potential for flash emissions (as defined in § 63.761) shall comply with one of the control requirements specified in paragraphs (b)(1) and (2) of this section.

(1) The owner or operator shall equip the affected storage vessel with the potential for flash emissions with a cover that is connected, through a closed-vent system that meets the conditions specified in § 63.771(c), to a control device or a combination of control devices that meets any of the conditions specified in § 63.771(d). The cover shall be designed and operated in accordance with the requirements of § 63.771(b).

(2) The owner or operator of a pressure storage vessel that is designed to operate as a closed system shall operate the storage vessel with no detectable emissions at all times that material is in the storage vessel, except as provided for in paragraph (c) of this section.

(3) The owner or operator shall control air emissions by connecting the cover, through a closed-vent system that meets the conditions specified in § 63.771(c), to a process natural gas line.

(c) One or more safety devices that vent directly to the atmosphere may be used on the storage vessel and air emission control equipment complying with paragraphs (b)(1) and (2) of this section.

(d) This section does not apply to storage vessels for which the owner or operator is subject to and controlled under the requirements specified in 40 CFR part 60, subparts Kb or OOOO; or

is subject to and controlled under the requirements specified under 40 CFR part 63 subparts G or CC. Storage vessels subject to and controlled under 40 CFR part 60, subpart OOOO shall submit the periodic reports specified in § 63.775(e).

[64 FR 32628, June 17, 1999, as amended at 77 FR 49571, Aug. 16, 2012]

§§ 63.767–63.768 [Reserved]

§ 63.769 Equipment leak standards.

(a) This section applies to equipment subject to this subpart and specified in paragraphs (a)(1) and (2) of this section that is located at a natural gas processing plant and operates in VHAP service equal to or greater than 300 hours per calendar year.

(1) Ancillary equipment, as defined in § 63.761; and

(2) Compressors.

(b) This section does not apply to ancillary equipment and compressors for which the owner or operator is subject to and controlled under the requirements specified in subpart H of this part; or is subject to and controlled under the requirements specified in 40 CFR part 60, subpart OOOO. Ancillary equipment and compressors subject to and controlled under 40 CFR part 60, subpart OOOO shall submit the periodic reports specified in § 63.775(e).

(c) For each piece of ancillary equipment and each compressor subject to this section located at an existing or new source, the owner or operator shall meet the requirements specified in 40 CFR part 61, subpart V, §§ 61.241 through 61.247, except as specified in paragraphs (c)(1) through (8) of this section, except that for valves subject to § 61.242–7(b) or § 61.243–1, a leak is detected if an instrument reading of 500 ppm or greater is measured. A leak detected from a valve at a source constructed on or before August 23, 2011 shall be repaired in accordance with the schedule in § 61.242–7(d), or by October 15, 2013, whichever is later. A leak detected from a valve at a source constructed after August 23, 2011 shall be repaired in accordance with the schedule in § 61.242–7(d), or by October 15, 2012, whichever is later.

(1) Each pressure relief device in gas/vapor service shall be monitored quarterly and within 5 days after each pressure release to detect leaks, except under the following conditions.

(i) The owner or operator has obtained permission from the Administrator to use an alternative means of emission limitation that achieves a reduction in emissions of VHAP at least equivalent to that achieved by the control required in this subpart.

(ii) The pressure relief device is located in a nonfractionating facility that is monitored only by non-facility personnel, it may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days. Such a pressure relief device shall not be allowed to operate for more than 30 days after a pressure release without monitoring.

(2) For pressure relief devices, if an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

(3) For pressure relief devices, when a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, unless a delay in repair of equipment is granted under 40 CFR 61.242–10.

(4) Sampling connection systems are exempt from the requirements of 40 CFR 61.242–5.

(5) Pumps in VHAP service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas are exempt from the routine monitoring requirements of 40 CFR 61.242–2(a)(1) and 61.242–7(a), and paragraphs (c)(1) through (3) of this section.

(6) Pumps in VHAP service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service located within a natural gas processing plant that is located on the Alaskan North Slope are exempt from the routine monitoring requirements of 40 CFR 61.242–2(a)(1) and 61.242–7(a), and paragraphs (c)(1) through (3) of this section.

(7) Reciprocating compressors in wet gas service are exempt from the compressor control requirements of 40 CFR 61.242–3.

(8) Flares, as defined in § 63.761, used to comply with this subpart shall comply with the requirements of § 63.11(b).

[64 FR 32628, June 17, 1999, as amended at 66 FR 34551, June 29, 2001; 77 FR 49571, Aug. 16, 2012]

§ 63.770 [Reserved]

§ 63.771 Control equipment requirements.

(a) This section applies to each cover, closed-vent system, and control device installed and operated by the owner or operator to control air emissions as required by the provisions of this subpart. Compliance with paragraphs (b), (c), and (d) of this section will be determined by review of the records required by § 63.774 and the reports required by § 63.775, by review of performance test results, and by inspections.

(b) *Cover requirements.* (1) The cover and all openings on the cover (e.g., access hatches, sampling ports, and gauge wells) shall be designed to form a continuous barrier over the entire surface area of the liquid in the storage vessel.

(2) Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:

(i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);

(ii) To inspect or sample the material in the unit;

(iii) To inspect, maintain, repair, or replace equipment located inside the unit; or

(iv) To vent liquids, gases, or fumes from the unit through a closed-vent system to a control device designed and operated in accordance with the requirements of paragraphs (c) and (d) of this section.

(c) *Closed-vent system requirements.* (1) The closed-vent system shall route all gases, vapors, and fumes emitted from the material in an emissions unit to a control device that meets the requirements specified in paragraph (d) of this section.

(2) The closed-vent system shall be designed and operated with no detectable emissions.

(3) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section.

(i) For each bypass device, except as provided for in paragraph (c)(3)(ii) of this section, the owner or operator shall either:

(A) At the inlet to the bypass device that could divert the stream away from the control device to the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere; or

(B) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.

(ii) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (c)(3)(i) of this section.

(d) *Control device requirements for sources except small glycol dehydration units.* Owners and operators of small glycol dehydration units, shall comply with the control device requirements in paragraph (f) of this section.

(1) The control device used to reduce HAP emissions in accordance with the standards of this subpart shall be one of the control devices specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) An enclosed combustion device (e.g., thermal vapor incinerator, catalytic vapor incinerator, boiler, or process heater) that is designed and operated in accordance with one of the following performance requirements:

(A) Reduces the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by

weight or greater as determined in accordance with the requirements of § 63.772(e); or

(B) Reduces the concentration of either TOC or total HAP in the exhaust gases at the outlet to the device to a level equal to or less than 20 parts per million by volume on a dry basis corrected to 3 percent oxygen as determined in accordance with the requirements of § 63.772(e); or

(C) Operates at a minimum temperature of 760 degrees C, provided the control device has demonstrated, under § 63.772(e), that combustion zone temperature is an indicator of destruction efficiency.

(D) If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(ii) A vapor recovery device (e.g., carbon adsorption system or condenser) or other non-destructive control device that is designed and operated to reduce the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by weight or greater as determined in accordance with the requirements of § 63.772(e).

(iii) A flare, as defined in § 63.761, that is designed and operated in accordance with the requirements of § 63.11(b).

(2) [Reserved]

(3) The owner or operator shall demonstrate that a control device achieves the performance requirements of paragraph (d)(1) of this section as specified in § 63.772(e).

(4) The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (d)(4)(i) and (ii) of this section.

(i) Each control device used to comply with this subpart shall be operating at all times when gases, vapors, and fumes are vented from the HAP emissions unit or units through the closed-vent system to the control device, as required under § 63.765, § 63.766, and § 63.769. An owner or operator may vent more than one unit to a control device used to comply with this subpart.

(ii) For each control device monitored in accordance with the requirements of § 63.773(d), the owner or operator shall demonstrate compliance according to the requirements of § 63.772(f) or (g), as applicable.

(5) For each carbon adsorption system used as a control device to meet the requirements of paragraph (d)(1) of this section, the owner or operator shall manage the carbon as follows:

(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system. Records identifying the schedule for replacement and records of each carbon replacement shall be maintained as required in § 63.774(b)(7)(ix). The schedule for replacement shall be submitted with the Notification of Compliance Status Report as specified in § 63.775(d)(5)(iv). Each carbon replacement must be reported in the Periodic Reports as specified in § 63.772(e)(2)(xii).

(ii) The spent carbon removed from the carbon adsorption system shall be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(5)(ii)(A) through (d)(5)(ii)(G) of this section.

(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section.

(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emissions standard for HAP under another subpart in 40 CFR part 61 or this part.

(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

(E) Burned in a hazardous waste incinerator which the owner or operator has designed and operates in accordance with the requirements of 40 CFR part 265, subpart O.

(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(G) Burned in a boiler or industrial furnace which the owner or operator has designed and operates in accordance with the interim status requirements of 40 CFR part 266, subpart H.

(e) *Process modification requirements.* Each owner or operator that chooses to comply with § 63.765(c)(2) shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.

(1) The owner or operator shall determine glycol dehydration unit baseline operations (as defined in § 63.761). Records of glycol dehydration unit baseline operations shall be retained as required under § 63.774(b)(10).

(2) The owner or operator shall document, to the Administrator's satisfaction, the conditions for which glycol dehydration unit baseline operations shall be modified to achieve the 95.0 percent overall HAP emission reduction, or BTEX limit determined in § 63.765(b)(1)(iii), as applicable, either through process modifications or through a combination of process modifications and one or more control devices. If a combination of process modifications and one or more control devices are used, the owner or operator shall also establish the emission reduction to be achieved by the control device to achieve an overall HAP emission reduction of 95.0 percent for the glycol dehydration unit process vent or, if applicable, the BTEX limit determined in § 63.765(b)(1)(iii) for the small glycol dehydration unit process vent. Only modifications in glycol dehydration unit operations directly related to process changes, including but not limited to changes in glycol circulation rate or glycol-HAP absorbency, shall be allowed. Changes in the inlet gas characteristics or natural gas throughput rate shall not be considered in determining the overall emission reduction due to process modifications.

(3) The owner or operator that achieves a 95.0 percent HAP emission reduction or meets the BTEX limit determined in § 63.765(b)(1)(iii), as applicable, using process modifications alone shall comply with paragraph (e)(3)(i) of this section. The owner or operator that achieves a 95.0 percent HAP emission reduction or meets the BTEX limit determined in § 63.765(b)(1)(iii), as applicable, using a combination of process modifications and one or more control devices shall comply with paragraphs (e)(3)(i) and (ii) of this section.

(i) The owner or operator shall maintain records, as required in § 63.774(b)(11), that the facility continues to operate in accordance with the conditions specified under paragraph (e)(2) of this section.

(ii) The owner or operator shall comply with the control device requirements specified in paragraph (d) or (f) of this section, as applicable, except that the emission reduction or limit achieved shall be the emission reduction or limit specified for the control device(s) in paragraph (e)(2) of this section.

(f) *Control device requirements for small glycol dehydration units.* (1) The control device used to meet BTEX the emission limit calculated in § 63.765(b)(1)(iii) shall be one of the control devices specified in paragraphs (f)(1)(i) through (iii) of this section.

(i) An enclosed combustion device (e.g., thermal vapor incinerator, catalytic vapor incinerator, boiler, or process heater) that is designed and operated to meet the levels specified in paragraphs (f)(1)(i)(A) or (B) of this section. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(A) The mass content of BTEX in the gases vented to the device is reduced as determined in accordance with the requirements of § 63.772(e).

(B) The concentration of either TOC or total HAP in the exhaust gases at the outlet of the device is reduced to a level equal to or less than 20 parts per million by volume on a dry basis corrected to 3 percent oxygen as determined in accordance with the requirements of § 63.772(e).

(ii) A vapor recovery device (e.g., carbon adsorption system or condenser) or other non-destructive control device that is designed and operated to reduce the mass content of BTEX in the gases

vented to the device as determined in accordance with the requirements of § 63.772(e).

(iii) A flare, as defined in § 63.761, that is designed and operated in accordance with the requirements of § 63.11(b).

(2) The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) Each control device used to comply with this subpart shall be operating at all times. An owner or operator may vent more than one unit to a control device used to comply with this subpart.

(ii) For each control device monitored in accordance with the requirements of § 63.773(d), the owner or operator shall demonstrate compliance according to the requirements of either § 63.772(f) or (h).

(3) For each carbon adsorption system used as a control device to meet the requirements of paragraph (f)(1)(ii) of this section, the owner or operator shall manage the carbon as required under (d)(5)(i) and (ii) of this section.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34552, June 29, 2001; 68 FR 37353, June 23, 2003; 77 FR 49572, Aug. 16, 2012]

§ 63.772 Test methods, compliance procedures, and compliance demonstrations.

(a) *Determination of material VHAP or HAP concentration to determine the applicability of the equipment leak standards under this subpart (§ 63.769).* Each piece of ancillary equipment and compressors are presumed to be in VHAP service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VHAP service or in wet gas service.

(1) For a piece of ancillary equipment and compressors to be considered not in VHAP service, it must be determined that the percent VHAP content can be reasonably expected never to exceed 10.0 percent by weight. For the purposes of determining the percent VHAP content of the process fluid that is contained in or contacts a piece of ancillary equipment or compressor, you shall use the method in either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) Method 18 of 40 CFR part 60, appendix A, or

(ii) ASTM D6420–99 (2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference—see § 63.14), provided that the provisions of paragraphs (a)(1)(ii)(A) through (D) of this section are followed:

(A) The target compound(s) are those listed in section 1.1 of ASTM D6420–99 (2004);

(B) The target concentration is between 150 parts per billion by volume and 100 parts per million by volume;

(C) For target compound(s) not listed in Table 1.1 of ASTM D6420–99 (2004), but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in section 10.5.3 of ASTM D6420–99 (2004), is conducted, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water soluble; and

(D) For target compound(s) not listed in Table 1.1 of ASTM D6420–99 (2004), and not amenable to detection by mass spectrometry, ASTM D6420–99 (2004) may not be used.

(2) For a piece of ancillary equipment and compressors to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction of natural gas liquids.

(b) *Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

(1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert annual natural gas

flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.

(ii) The owner or operator shall document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.

(2) The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (ii) of this section. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene or BTEX emissions using the model GRI–GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI–GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled ''Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions'' (GRI–95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in § 63.772(a)(1)(i) or (ii), or an alternative method according to § 63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

(c) *No detectable emissions test procedure.* (1) The no detectable emissions test procedure shall be conducted in accordance with Method 21, 40 CFR part 60, appendix A.

(2) The detection instrument shall meet the performance criteria of Method 21, 40 CFR part 60, appendix A, except that the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the fluid and not for each individual organic compound in the stream.

(3) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21, 40 CFR part 60, appendix A.

(4) Calibration gases shall be as follows:

(i) Zero air (less than 10 parts per million by volume hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration less than 10,000 parts per million by volume.

(5) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(6)(i) Except as provided in paragraph (c)(6)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid, not each individual volatile organic compound in the stream. For process streams that contain nitrogen, air, or other inert gases that are not organic hazardous air pollutants or volatile organic compounds, the average stream response factor shall be calculated on an inert-free basis.

(ii) If no instrument is available at the facility that will meet the performance criteria specified in paragraph (c)(6)(i) of this section, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in paragraph (c)(6)(i) of this section.

(7) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (c)(7)(i) or (c)(7)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument

is compared directly to the applicable value for the potential leak interface as specified in paragraph (c)(8) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (c)(5) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (c)(8) of this section.

(8) A potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (c)(7) of this section, is less than 500 parts per million by volume.

(d) *Test procedures and compliance demonstrations for small glycol dehydration units.* This paragraph applies to the test procedures for small dehydration units.

(1) If the owner or operator is using a control device to comply with the emission limit in § 63.765(b)(1)(iii), the requirements of paragraph (e) of this section apply. Compliance is demonstrated using the methods specified in paragraph (f) of this section.

(2) If no control device is used to comply with the emission limit in § 63.765(b)(1)(iii), the owner or operator must determine the glycol dehydration unit BTEX emissions as specified in paragraphs (d)(2)(i) through (iii) of this section. Compliance is demonstrated if the BTEX emissions determined as specified in paragraphs (d)(2)(i) through (iii) are less than the emission limit calculated using the equation in § 63.765(b)(1)(iii).

(i) Method 1 or 1A, 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites at the outlet of the glycol dehydration unit process vent. Any references to particulate mentioned in Methods 1 and 1A do not apply to this section.

(ii) The gas volumetric flowrate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

(iii) The BTEX emissions from the outlet of the glycol dehydration unit process vent shall be determined using the procedures specified in paragraph (e)(3)(v) of this section. As an alternative, the mass rate of BTEX at the outlet of the glycol dehydration unit process vent may be calculated using the model GRI–GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI–GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and shall be determined using the procedures documented in the Gas Research Institute (GRI) report entitled ''Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions'' (GRI–95/0368.1). When the BTEX mass rate is calculated for glycol dehydration units using the model GRI–GLYCalc™, all BTEX measured by Method 18, 40 CFR part 60, appendix A, shall be summed.

(e) *Control device performance test procedures.* This paragraph applies to the performance testing of control devices. The owners or operators shall demonstrate that a control device achieves the performance requirements of § 63.771(d)(1), (e)(3)(ii) or (f)(1) using a performance test as specified in paragraph (e)(3) of this section. Owners or operators using a condenser have the option to use a design analysis as specified in paragraph (e)(4) of this section. The owner or operator may elect to use the alternative procedures in paragraph (e)(5) of this section for performance testing of a condenser used to control emissions from a glycol dehydration unit process vent. Flares shall meet the provisions in paragraph (e)(2) of this section. As an alternative to conducting a performance test under this section for combustion control devices, a control device that can be demonstrated to meet the performance requirements of § 63.771(d)(1), (e)(3)(ii) or (f)(1) through a performance test conducted by the manufacturer, as specified in paragraph (h) of this section, can be used.

(1) The following control devices are exempt from the requirements to conduct performance tests and design analyses under this section:

(i) Except as specified in paragraph (e)(2) of this section, a flare, as defined in § 63.761, that is designed and operated in accordance with § 63.11(b);

(ii) Except for control devices used for small glycol dehydration units, a boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(iii) Except for control devices used for small glycol dehydration units, a boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel;

(iv) Except for control devices used for small glycol dehydration units, a boiler or process heater burning hazardous waste for which the owner or operator has either been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H;

(v) Except for control devices used for small glycol dehydration units, 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.

(vi) A control device for which a performance test was conducted for determining compliance with a regulation promulgated by the EPA and the test was conducted using the same methods specified in this section and either no 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.

(2) An owner or operator shall design and operate each flare, as defined in § 63.761, in accordance with the requirements specified in § 63.11(b) and the compliance determination shall be conducted using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.

(3) For a performance test conducted to demonstrate that a control device meets the requirements of § 63.771(d)(1), (e)(3)(ii) or (f)(1), the owner or operator shall use the test methods and procedures specified in paragraphs (e)(3)(i) through (v) of this section. The initial and periodic performance tests shall be conducted according to the schedule specified in paragraph (e)(3)(vi) of this section.

(i) Method 1 or 1A, 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites in paragraphs (e)(3)(i)(A) and (B) of this section. Any references to particulate mentioned in Methods 1 and 1A do not apply to this section.

(A) To determine compliance with the control device percent reduction requirement specified in § 63.771(d)(1)(i)(A), (d)(1)(ii) or (e)(3)(ii), sampling sites shall be located at the inlet of the first control device, and at the outlet of the final control device.

(B) To determine compliance with the enclosed combustion device total HAP concentration limit specified in § 63.771(d)(1)(i)(B), or the BTEX emission limit specified in § 63.765(b)(1)(iii) the sampling site shall be located at the outlet of the combustion device.

(ii) The gas volumetric flowrate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

(iii) To determine compliance with the control device percent reduction performance requirement in § 63.771(d)(1)(i)(A), (d)(1)(ii), and (e)(3)(ii), the owner or operator shall use one of the following methods: Method 18, 40 CFR part 60, appendix A; Method 25A, 40 CFR part 60, appendix A; ASTM D6420–99 (2004), as specified in § 63.772(a)(1)(ii); or any other method or data that have been validated according to the applicable procedures in Method 301, 40 CFR part 63, appendix A. The following procedures shall be used to calculate percent reduction efficiency:

(A) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(B) The mass rate of either TOC (minus methane and ethane) or total

HAP (E_i, E_o) shall be computed using the equations and procedures specified in paragraphs (e)(3)(iii)(B)(*1*) through (*3*) of this section. As an alternative, the mass rate of either TOC (minus methane and ethane) or total HAP at the inlet of the control device (E_i) may be calculated using the procedures specified in paragraph (e)(3)(iii)(B)(*4*) of this section.

(*1*) The following equations shall be used:

$$E_i = K_2\left(\sum_{j=1}^{n} C_{ij}M_{ij}\right)Q_i$$

$$E_o = K_2\left(\sum_{j=1}^{n} C_{oj}M_{oj}\right)Q_o$$

Where:

C_{ij}, C_{oj} = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, parts per million by volume.

E_i, E_o = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

M_{ij}, M_{oj} = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.

Q_i, Q_o = Flowrate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.

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

n = Number of components in sample.

(*2*) When the TOC mass rate is calculated, all organic compounds (minus methane and ethane) measured by Method 18, 40 CFR part 60, appendix A, or Method 25A, 40 CFR part 60, appendix A, or ASTM D6420–99 (2004) as specified in § 63.772(a)(1)(ii), shall be summed using the equations in paragraph (e)(3)(iii)(B)(*1*) of this section.

(*3*) When the total HAP mass rate is calculated, only HAP chemicals listed in Table 1 of this subpart shall be summed using the equations in paragraph (e)(3)(iii)(B)(*1*) of this section.

(*4*) As an alternative to the procedures for calculating E_i specified in paragraph (e)(3)(iii)(B)(*1*) of this section, the owner or operator may use the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and shall be determined using the procedures documented in the Gas Research Institute (GRI) report entitled ''Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions'' (GRI–95/0368.1). When the TOC mass rate is calculated for glycol dehydration units using the model GRI-GLYCalc™, all organic compounds (minus methane and ethane) measured by Method 18, 40 CFR part 60, appendix A, or Method 25A, 40 CFR part 60, appendix A, shall be summed. When the total HAP mass rate is calculated for glycol dehydration units using the model GRI-GLYCalc™, only HAP chemicals listed in Table 1 of this subpart shall be summed.

(C) The percent reduction in TOC (minus methane and ethane) or total HAP shall be calculated as follows:

$$R_{cd} = \frac{E_i - E_o}{E_i} \times 100\%$$

Where:

R_{cd} = Control efficiency of control device, percent.

E_i = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet to the control device as calculated under paragraph (e)(3)(iii)(B) of this section, kilograms TOC per hour or kilograms HAP per hour.

E_o = Mass rate of TOC (minus methane and ethane) or total HAP at the outlet of the control device, as calculated under paragraph (e)(3)(iii)(B) of this section, kilograms TOC per hour or kilograms HAP per hour.

(D) If the vent stream entering a boiler or process heater with a design capacity less than 44 megawatts is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total HAP or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or

total HAP in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total HAP exiting the device, respectively.

(iv) To determine compliance with the enclosed combustion device total HAP concentration limit specified in §63.771(d)(1)(i)(B), the owner or operator shall use one of the following methods to measure either TOC (minus methane and ethane) or total HAP: Method 18, 40 CFR part 60, appendix A; Method 25A, 40 CFR part 60, appendix A; ASTM D6420–99 (2004), as specified in §63.772(a)(1)(ii), or any other method or data that have been validated according to Method 301 of appendix A of this part. The following procedures shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen:

(A) The minimum sampling time for each run shall be 1 hour, in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(B) The TOC concentration or total HAP concentration shall be calculated according to paragraph (e)(3)(iv)(B)(*1*) or (e)(3)(iv)(B)(*2*) of this section.

(*1*) The TOC concentration is the sum of the concentrations of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{i=1}^{x} \frac{\left(\sum_{j=1}^{n} C_{ji} \right)}{x}$$

Where:

C_{TOC} = entration of total organic compounds minus methane and ethane, dry basis, parts per million by volume.

C_{ji} = Concentration of sample component j of sample i, dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

(*2*) The total HAP concentration shall be computed according to the equation in paragraph (e)(3)(iv)(B)(*1*) of this section, except that only HAP chemicals listed in Table 1 of this subpart shall be summed.

(C) The TOC concentration or total HAP concentration shall be corrected to 3 percent oxygen as follows:

(*1*) The emission rate correction factor for excess air, integrated sampling and analysis procedures of Method 3A or 3B, 40 CFR part 60, appendix A, ASTM D6522–00 (Reapproved 2005), or ANSI/ASME PTC 19.10–1981, Part 10 (manual portion only) (incorporated by reference as specified in §63.14) shall be used to determine the oxygen concentration. The samples shall be taken during the same time that the samples are taken for determining TOC concentration or total HAP concentration.

(*2*) The TOC or HAP concentration shall be corrected for percent oxygen by using the following equation:

$$C_c = C_m \left(\frac{17.9}{20.9 - \%O_{2d}} \right)$$

Where:

C_c = TOC concentration or total HAP concentration corrected to 3 percent oxygen, dry basis, parts per million by volume.

C_m = TOC concentration or total HAP concentration, dry basis, parts per million by volume.

$\%O_{2d}$ = Concentration of oxygen, dry basis, percent by volume.

(v) To determine compliance with the BTEX emission limit specified in §63.765(b)(1)(iii) the owner or operator shall use one of the following methods: Method 18, 40 CFR part 60, appendix A; ASTM D6420–99 (Reapproved 2004), as specified in §63.772(a)(1)(ii) (incorporated by reference as specified in §63.14); or any other method or data that have been validated according to the applicable procedures in Method 301, 40 CFR part 63, appendix A. The following procedures shall be used to calculate BTEX emissions:

(A) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(B) The mass rate of BTEX (E_o) shall be computed using the equations and procedures specified in paragraphs (e)(3)(v)(B)(*1*) and (*2*) of this section.

(*1*) The following equation shall be used:

$$E_o = K_2\left(\sum_{j=1}^{n} C_{oj}M_{oj}\right)Q_o$$

Where:

E_o = Mass rate of BTEX at the outlet of the control device, dry basis, kilogram per hour.

C_{oj} = Concentration of sample component j of the gas stream at the outlet of the control device, dry basis, parts per million by volume.

M_{oj} = Molecular weight of sample component j of the gas stream at the outlet of the control device, gram/gram-mole.

Q_o = Flowrate of gas stream at the outlet of the control device, dry standard cubic meter per minute.

K_2 = Constant, 2.494×10^{-6} (parts per million) (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature (gram-mole per standard cubic meter) is 20 degrees C.

n = Number of components in sample.

(*2*) When the BTEX mass rate is calculated, only BTEX compounds measured by Method 18, 40 CFR part 60, appendix A, or ASTM D6420–99 (Reapproved 2004) (incorporated by reference as specified in § 63.14) as specified in § 63.772(a)(1)(ii), shall be summed using the equations in paragraph (e)(3)(v)(B)(*1*) of this section.

(vi) The owner or operator shall conduct performance tests according to the schedule specified in paragraphs (e)(3)(vi)(A) and (B) of this section.

(A) An initial performance test shall be conducted within 180 days after the compliance date that is specified for each affected source in § 63.760(f)(7) through (8), except that the initial performance test for existing combustion control devices (*i.e.*, control devices installed on or before August 23, 2011) at major sources shall be conducted no later than October 15, 2015. If the owner or operator of an existing combustion control device at a major source chooses to replace such device with a control device whose model is tested under § 63.772(h), then the newly installed device shall comply with all provisions of this subpart no later than October 15, 2015. The performance test results shall be submitted in the Notification of Compliance Status Report as required in § 63.775(d)(1)(ii).

(B) Periodic performance tests shall be conducted for all control devices required to conduct initial performance tests except as specified in paragraphs (e)(3)(vi)(B)(*1*) and (*2*) of this section. The first periodic performance test shall be conducted no later than 60 months after the initial performance test required in paragraph (e)(3)(vi)(A) of this section. Subsequent periodic performance tests shall be conducted at intervals no longer than 60 months following the previous periodic performance test or whenever a source desires to establish a new operating limit. The periodic performance test results must be submitted in the next Periodic Report as specified in § 63.775(e)(2)(xi). Combustion control devices meeting the criteria in either paragraph (e)(3)(vi)(B)(*1*) or (*2*) of this section are not required to conduct periodic performance tests.

(*1*) A control device whose model is tested under, and meets the criteria of, § 63.772(h), or

(*2*) A combustion control device demonstrating during the performance test under § 63.772(e) that combustion zone temperature is an indicator of destruction efficiency and operates at a minimum temperature of 760 degrees C.

(4) For a condenser design analysis conducted to meet the requirements of § 63.771(d)(1), (e)(3)(ii), or (f)(1), the owner or operator shall meet the requirements specified in paragraphs (e)(4)(i) and (ii) of this section. Documentation of the design analysis shall be submitted as a part of the Notification of Compliance Status Report as required in § 63.775(d)(1)(i).

(i) The condenser design analysis shall include an analysis of the vent

stream composition, constituent concentrations, flowrate, relative humidity, and temperature, and shall establish the design outlet organic 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. As an alternative to the condenser design analysis, an owner or operator may elect to use the procedures specified in paragraph (e)(5) of this section.

(ii) If the owner or operator and the Administrator do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of paragraph (e)(3) of this section. The Administrator may choose to have an authorized representative observe the performance test.

(5) As an alternative to the procedures in paragraph (e)(4)(i) of this section, an owner or operator may elect to use the procedures documented in the GRI report entitled, ''Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions'' (GRI–95/0368.1) as inputs for the model GRI–GLYCalc™, Version 3.0 or higher, to generate a condenser performance curve.

(f) *Compliance demonstration for control device performance requirements.* This paragraph applies to the demonstration of compliance with the control device performance requirements specified in §63.771(d)(1)(i), (e)(3), and (f)(1). Compliance shall be demonstrated using the requirements in paragraphs (f)(1) through (3) of this section. As an alternative, an owner or operator that installs a condenser as the control device to achieve the requirements specified in §63.771(d)(1)(ii), (e)(3), or (f)(1) may demonstrate compliance according to paragraph (g) of this section. An owner or operator may switch between compliance with paragraph (f) of this section and compliance with paragraph (g) of this section only after at least 1 year of operation in compliance with the selected approach. Notification of such a change in the compliance method shall be reported in the next Periodic Report, as required in §63.775(e), following the change.

(1) The owner or operator shall establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of §63.773(d)(5)(i).

(2) The owner or operator shall calculate the daily average of the applicable monitored parameter in accordance with §63.773(d)(4) except that the inlet gas flowrate to the control device shall not be averaged.

(3) Compliance with the operating parameter limit is achieved when the daily average of the monitoring parameter value calculated under paragraph (f)(2) of this section is either equal to or greater than the minimum or equal to or less than the maximum monitoring value established under paragraph (f)(1) of this section. For inlet gas flowrate, compliance with the operating parameter limit is achieved when the value is equal to or less than the value established under §63.772(h) or under the performance test conducted under §63.772(e), as applicable.

(4) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), the CMS required in §63.773(d) must be operated at all times the affected source is operating. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. Monitoring system repairs are required to be completed in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(5) Data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. All the data collected during all other required data collection periods must

be used in assessing the operation of the control device and associated control system.

(6) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required quality monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements.

(g) *Compliance demonstration with percent reduction or emission limit performance requirements—condensers.* This paragraph applies to the demonstration of compliance with the performance requirements specified in § 63.771(d)(1)(ii), (e)(3), or (f)(1) for condensers. Compliance shall be demonstrated using the procedures in paragraphs (g)(1) through (3) of this section.

(1) The owner or operator shall establish a site-specific condenser performance curve according to § 63.773(d)(5)(ii). For sources required to meet the BTEX limit in accordance with § 63.771(e) or (f)(1) the owner or operator shall identify the minimum percent reduction necessary to meet the BTEX limit.

(2) Compliance with the requirements in § 63.771(d)(1)(ii), (e)(3), or (f)(1) shall be demonstrated by the procedures in paragraphs (g)(2)(i) through (iii) of this section.

(i) The owner or operator must calculate the daily average condenser outlet temperature in accordance with § 63.773(d)(4).

(ii) The owner or operator shall determine the condenser efficiency for the current operating day using the daily average condenser outlet temperature calculated under paragraph (g)(2)(i) of this section and the condenser performance curve established under paragraph (g)(1) of this section.

(iii) Except as provided in paragraphs (g)(2)(iii)(A) and (B) of this section, at the end of each operating day, the owner or operator shall calculate the 365-day average HAP, or BTEX, emission reduction, as appropriate, from the condenser efficiencies as determined in paragraph (g)(2)(ii) of this section for the preceding 365 operating days. If the owner or operator uses a combination of process modifications and a condenser in accordance with the requirements of § 63.771(e), the 365-day average HAP, or BTEX, emission reduction shall be calculated using the emission reduction achieved through process modifications and the condenser efficiency as determined in paragraph (g)(2)(ii) of this section, both for the previous 365 operating days.

(A) After the compliance dates specified in § 63.760(f), an owner or operator with less than 120 days of data for determining average HAP, or BTEX, emission reduction, as appropriate, shall calculate the average HAP, or BTEX emission reduction, as appropriate, for the first 120 days of operation after the compliance dates. For sources required to meet the overall 95.0 percent reduction requirement, compliance is achieved if the 120-day average HAP emission reduction is equal to or greater than 90.0 percent. For sources required to meet the BTEX limit under § 63.765(b)(1)(iii), compliance is achieved if the average BTEX emission reduction is at least 95.0 percent of the required 365-day value identified under paragraph (g)(1) of this section (*i.e.*, at least 76.0 percent if the 365-day design value is 80.0 percent).

(B) After 120 days and no more than 364 days of operation after the compliance dates specified in § 63.760(f), the owner or operator shall calculate the average HAP emission reduction as the HAP emission reduction averaged over the number of days between the current day and the applicable compliance date. For sources required to meet the overall 95.0-percent reduction requirement, compliance with the performance requirements is achieved if the average HAP emission reduction is equal to or greater than 90.0 percent. For sources required to meet the BTEX limit under § 63.765(b)(1)(iii), compliance is achieved if the average BTEX emission reduction is at least 95.0 percent of the required 365-day value identified under paragraph (g)(1) of this section (*i.e.*, at least 76.0 percent if the 365-day design value is 80.0 percent).

(3) If the owner or operator has data for 365 days or more of operation, compliance is achieved based on the applicable criteria in paragraphs (g)(3)(i) or (ii) of this section.

(i) For sources meeting the HAP emission reduction specified in §63.771(d)(1)(ii) or (e)(3) the average HAP emission reduction calculated in paragraph (g)(2)(iii) of this section is equal to or greater than 95.0 percent.

(ii) For sources required to meet the BTEX limit under §63.771(e)(3) or (f)(1), compliance is achieved if the average BTEX emission reduction calculated in paragraph (g)(2)(iii) of this section is equal to or greater than the minimum percent reduction identified in paragraph (g)(1) of this section.

(h) *Performance testing for combustion control devices—manufacturers' performance test.* (1) This paragraph applies to the performance testing of a combustion control device conducted by the device manufacturer. The manufacturer shall demonstrate that a specific model of control device achieves the performance requirements in paragraph (h)(7) of this section by conducting a performance test as specified in paragraphs (h)(2) through (6) of this section.

(2) Performance testing shall consist of three one-hour (or longer) test runs for each of the four following firing rate settings making a total of 12 test runs per test. Propene (propylene) gas shall be used for the testing fuel. All fuel analyses shall be performed by an independent third-party laboratory (not affiliated with the control device manufacturer or fuel supplier).

(i) 90–100 percent of maximum design rate (fixed rate).

(ii) 70–100–70 percent (ramp up, ramp down). Begin the test at 70 percent of the maximum design rate. During the first 5 minutes, incrementally ramp the firing rate to 100 percent of the maximum design rate. Hold at 100 percent for 5 minutes. In the 10–15 minute time range, incrementally ramp back down to 70 percent of the maximum design rate. Repeat three more times for a total of 60 minutes of sampling.

(iii) 30–70–30 percent (ramp up, ramp down). Begin the test at 30 percent of the maximum design rate. During the first 5 minutes, incrementally ramp the firing rate to 70 percent of the maximum design rate. Hold at 70 percent for 5 minutes. In the 10–15 minute time range, incrementally ramp back down to 30 percent of the maximum design rate. Repeat three more times for a total of 60 minutes of sampling.

(iv) 0–30–0 percent (ramp up, ramp down). Begin the test at 0 percent of the maximum design rate. During the first 5 minutes, incrementally ramp the firing rate to 30 percent of the maximum design rate. Hold at 30 percent for 5 minutes. In the 10–15 minute time range, incrementally ramp back down to 0 percent of the maximum design rate. Repeat three more times for a total of 60 minutes of sampling.

(3) All models employing multiple enclosures shall be tested simultaneously and with all burners operational. Results shall be reported for the each enclosure individually and for the average of the emissions from all interconnected combustion enclosures/chambers. Control device operating data shall be collected continuously throughout the performance test using an electronic Data Acquisition System and strip chart. Data shall be submitted with the test report in accordance with paragraph (h)(8)(iii) of this section.

(4) Inlet gas testing shall be conducted as specified in paragraphs (h)(4)(i) through (iii) of this section.

(i) The inlet gas flow metering system shall be located in accordance with Method 2A, 40 CFR part 60, appendix A–1, (or other approved procedure) to measure inlet gas flowrate at the control device inlet location. The fitting for filling inlet gas sample containers shall be located a minimum of 8 pipe diameters upstream of any inlet gas flow monitoring meter.

(ii) Inlet gas flowrate shall be determined using Method 2A, 40 CFR part 60, appendix A–1. Record the start and stop reading for each 60-minute THC test. Record the inlet gas pressure and temperature at 5-minute intervals throughout each 60-minute THC test.

(iii) Inlet gas fuel sampling shall be conducted in accordance with the criteria in paragraphs (h)(4)(iii)(A) and (B) of this section.

(A) At the inlet gas sampling location, securely connect a Silonite-coated stainless steel evacuated canister fitted with a flow controller sufficient to fill the canister over a 3 hour period. Filling shall be conducted as specified in the following:

(*1*) Open the canister sampling valve at the beginning of the total hydrocarbon (THC) test, and close the canister at the end of each THC run.

(*2*) Fill one canister across the three test runs for each THC test such that one composite fuel sample exists for each test condition.

(*3*) Label the canisters individually and record on a chain of custody form.

(B) Each inlet gas sample shall be analyzed using the following methods. The results shall be included in the test report.

(*1*) Hydrocarbon compounds containing between one and five atoms of carbon plus benzene using ASTM D1945–03 (Reapproved 2010) (incorporated by reference as specified in § 63.14).

(*2*) Hydrogen (H_2), carbon monoxide (CO), carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2) using ASTM D1945–03 (Reapproved 2010) (incorporated by reference as specified in § 63.14).

(*3*) Higher heating value using ASTM D3588–98 (Reapproved 2003) or ASTM D4891–89 (Reapproved 2006) (incorporated by reference as specified in § 63.14).

(5) Outlet testing shall be conducted in accordance with the criteria in paragraphs (h)(5)(i) through (v) of this section.

(i) Sampling and flowrate measured in accordance with the following:

(A) The outlet sampling location shall be a minimum of 4 equivalent stack diameters downstream from the highest peak flame or any other flow disturbance, and a minimum of one equivalent stack diameter upstream of the exit or any other flow disturbance. A minimum of two sample ports shall be used.

(B) Flowrate shall be measured using Method 1, 40 CFR part 60, Appendix 1, for determining flow measurement traverse point location; and Method 2, 40 CFR part 60, Appendix 1, shall be used to measure duct velocity. If low flow conditions are encountered (*i.e.*, velocity pressure differentials less than 0.05 inches of water) during the performance test, a more sensitive manometer or other pressure measurement device shall be used to obtain an accurate flow profile.

(ii) Molecular weight shall be determined as specified in paragraphs (h)(4)(iii)(B) and (h)(5)(ii)(A) and (B) of this section.

(A) An integrated bag sample shall be collected during the Method 4, 40 CFR part 60, Appendix A, moisture test. Analyze the bag sample using a gas chromatograph-thermal conductivity detector (GC–TCD) analysis meeting the following criteria:

(*1*) Collect the integrated sample throughout the entire test, and collect representative volumes from each traverse location.

(*2*) The sampling line shall be purged with stack gas before opening the valve and beginning to fill the bag.

(*3*) The bag contents shall be vigorously mixed prior to the GC analysis.

(*4*) The GC–TCD calibration procedure in Method 3C, 40 CFR part 60, Appendix A, shall be modified by using EPAAlt–045 as follows: For the initial calibration, triplicate injections of any single concentration must agree within 5 percent of their mean to be valid. The calibration response factor for a single concentration re-check must be within 10 percent of the original calibration response factor for that concentration. If this criterion is not met, the initial calibration using at least three concentration levels shall be repeated.

(B) Report the molecular weight of: O_2, CO_2, methane (CH4), and N_2 and include in the test report submitted under § 63.775(d)(iii). Moisture shall be determined using Method 4, 40 CFR part 60, Appendix A. Traverse both ports with the Method 4, 40 CFR part 60, Appendix A, sampling train during each test run. Ambient air shall not be introduced into the Method 3C, 40 CFR part 60, Appendix A, integrated bag sample during the port change.

(iii) Carbon monoxide shall be determined using Method 10, 40 CFR part 60, Appendix A, or ASTM D6522–00 (Reapproved 2005), (incorporated by reference as specified in § 63.14). The test shall be run at the same time and with the sample points used for the EPA Method 25A, 40 CFR part 60, Appendix A, testing. An instrument range of 0–10 per million by volume-dry (ppmvd) shall be used.

(iv) Visible emissions shall be determined using Method 22, 40 CFR part 60,

Appendix A. The test shall be performed continuously during each test run. A digital color photograph of the exhaust point, taken from the position of the observer and annotated with date and time, will be taken once per test run and the four photos included in the test report.

(v) Excess air shall be determined using resultant data from the EPA Method 3C tests and EPA Method 3B, 40 CFR part 60, Appendix A, equation 3B–1 or ANSI/ASME PTC 19.10, 1981-Part 10 (manual portion only) (incorporated by reference as specified in § 63.14).

(6) Total hydrocarbons (THC) shall be determined as specified by the following criteria:

(i) Conduct THC sampling using Method 25A, 40 CFR part 60, Appendix A, except the option for locating the probe in the center 10 percent of the stack shall not be allowed. The THC probe must be traversed to 16.7 percent, 50 percent, and 83.3 percent of the stack diameter during each test.

(ii) A valid test shall consist of three Method 25A, 40 CFR part 60, Appendix A, tests, each no less than 60 minutes in duration.

(iii) A 0–10 parts per million by volume-wet (ppmvw) (as propane) measurement range is preferred; as an alternative a 0–30 ppmvw (as carbon) measurement range may be used.

(iv) Calibration gases will be propane in air and be certified through EPA Protocol 1—''EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards,'' September 1997, as amended August 25, 1999, EPA–600/R–97/121 (or more recent if updated since 1999).

(v) THC measurements shall be reported in terms of ppmvw as propane.

(vi) THC results shall be corrected to 3 percent CO_2, as measured by Method 3C, 40 CFR part 60, Appendix A.

(vii) Subtraction of methane/ethane from the THC data is not allowed in determining results.

(7) Performance test criteria:

(i) The control device model tested must meet the criteria in paragraphs (h)(7)(i)(A) through (C) of this section:

(A) Method 22, 40 CFR part 60, Appendix A, results under paragraph (h)(5)(v) of this section with no indication of visible emissions, and

(B) Average Method 25A, 40 CFR part 60, Appendix A, results under paragraph (h)(6) of this section equal to or less than 10.0 ppmvw THC as propane corrected to 3.0 percent CO_2, and

(C) Average CO emissions determined under paragraph (h)(5)(iv) of this section equal to or less than 10 parts ppmvd, corrected to 3.0 percent CO_2.

(D) Excess combustion air shall be equal to or greater than 150 percent.

(ii) The manufacturer shall determine a maximum inlet gas flowrate which shall not be exceeded for each control device model to achieve the criteria in paragraph (h)(7)(i) of this section.

(iii) A control device meeting the criteria in paragraphs (h)(7)(i)(A) through (C) of this section will have demonstrated a destruction efficiency of 95.0 percent for HAP regulated under this subpart.

(8) The owner or operator of a combustion control device model tested under this section shall submit the information listed in paragraphs (h)(8)(i) through (iii) of this section in the test report required under § 63.775(d)(1)(iii).

(i) Full schematic of the control device and dimensions of the device components.

(ii) Design net heating value (minimum and maximum) of the device.

(iii) Test fuel gas flow range (in both mass and volume). Include the minimum and maximum allowable inlet gas flowrate.

(iv) Air/stream injection/assist ranges, if used.

(v) The test parameter ranges listed in paragraphs (h)(8)(v)(A) through (O) of this section, as applicable for the tested model.

(A) Fuel gas delivery pressure and temperature.

(B) Fuel gas moisture range.

(C) Purge gas usage range.

(D) Condensate (liquid fuel) separation range.

(E) Combustion zone temperature range. This is required for all devices that measure this parameter.

(F) Excess combustion air range.

(G) Flame arrestor(s).

(H) Burner manifold pressure.

(I) Pilot flame sensor.

(J) Pilot flame design fuel and fuel usage.

(K) Tip velocity range.
(L) Momentum flux ratio.
(M) Exit temperature range.
(N) Exit flowrate.
(O) Wind velocity and direction.

(vi) The test report shall include all calibration quality assurance/quality control data, calibration gas values, gas cylinder certification, and strip charts annotated with test times and calibration values.

(i) *Compliance demonstration for combustion control devices—manufacturers' performance test.* This paragraph applies to the demonstration of compliance for a combustion control device tested under the provisions in paragraph (h) of this section. Owners or operators shall demonstrate that a control device achieves the performance requirements of § 63.771(d)(1), (e)(3)(ii) or (f)(1), by installing a device tested under paragraph (h) of this section and complying with the following criteria:

(1) The inlet gas flowrate shall meet the range specified by the manufacturer. Flowrate shall be calculated as specified in § 63.773(d)(3)(i)(H)(*1*).

(2) A pilot flame shall be present at all times of operation. The pilot flame shall be monitored in accordance with § 63.773(d)(3)(i)(H)(*2*).

(3) Devices shall be operated with no visible emissions, except for periods not to exceed a total of 2 minutes during any hour. A visible emissions test using Method 22, 40 CFR part 60, Appendix A, shall be performed each calendar quarter. The observation period shall be 1 hour and shall be conducted according to EPA Method 22, 40 CFR part 60, Appendix A.

(4) Compliance with the operating parameter limit is achieved when the following criteria are met:

(i) The inlet gas flowrate monitored under paragraph (i)(1) of this section is equal to or below the maximum established by the manufacturer; and

(ii) The pilot flame is present at all times; and

(iii) During the visible emissions test performed under paragraph (i)(3) of this section the duration of visible emissions does not exceed a total of 2 minutes during the observation period. Devices failing the visible emissions test shall follow manufacturers repair instructions, if available, or best combustion engineering practice as outlined in the unit inspection and maintenance plan, to return the unit to compliant operation. All repairs and maintenance activities for each unit shall be recorded in a maintenance and repair log and shall be available on site for inspection.

(iv) Following return to operation from maintenance or repair activity, each device must pass a Method 22 visual observation as described in paragraph (i)(3) of this section.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34552, June 29, 2001; 72 FR 38, Jan. 3, 2007; 77 FR 49573, Aug. 16, 2012]

§ 63.773 Inspection and monitoring requirements.

(a) This section applies to an owner or operator using air emission controls in accordance with the requirements of §§ 63.765 and 63.766.

(b) The owner or operator of a control device whose model was tested under § 63.772(h) shall develop an inspection and maintenance plan for each control device. At a minimum, the plan shall contain the control device manufacturer's recommendations for ensuring proper operation of the device. Semi-annual inspections shall be conducted for each control device with maintenance and replacement of control device components made in accordance with the plan.

(c) *Cover and closed-vent system inspection and monitoring requirements.* (1) For each closed-vent system or cover required to comply with this section, the owner or operator shall comply with the requirements of paragraphs (c) (2) through (7) of this section.

(2) Except as provided in paragraphs (c)(5) and (6) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (c)(2)(i) and (ii) of this section, each cover shall be inspected according to the procedures and schedule specified in paragraph (c)(2)(iii) of this section, and each bypass device shall be inspected according to the procedures of paragraph (c)(2)(iv) of this section.

(i) For each closed-vent system joints, seams, or other connections

that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange), the owner or operator shall:

(A) Conduct an initial inspection according to the procedures specified in § 63.772(c) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in § 63.775(d)(1) or (2).

(B) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices. The owner or operator shall monitor a component or connection using the procedures in § 63.772(c) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. Inspection results shall be submitted in the Periodic Report as specified in § 63.775(e)(2)(iii).

(ii) For closed-vent system components other than those specified in paragraph (c)(2)(i) of this section, the owner or operator shall:

(A) Conduct an initial inspection according to the procedures specified in § 63.772(c) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in § 63.775(d)(1) or (2).

(B) Conduct annual inspections according to the procedures specified in § 63.772(c) to demonstrate that the components or connections operate with no detectable emissions. Inspection results shall be submitted in the Periodic Report as specified in § 63.775(e)(2)(iii).

(C) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices. Inspection results shall be submitted in the Periodic Report as specified in § 63.775(e)(2)(iii).

(iii) For each cover, the owner or operator shall:

(A) Conduct visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover, or between the cover and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case where the storage vessel is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

(B) The inspections specified in paragraph (c)(2)(iii)(A) of this section shall be conducted initially, following the installation of the cover. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in § 63.775(d)(12). Thereafter, the owner or operator shall perform the inspection at least once every calendar year, except as provided in paragraphs (c)(5) and (6) of this section. Annual inspection results shall be submitted in the Periodic Report as specified in § 63.775(e)(2)(iii).

(iv) For each bypass device, except as provided for in § 63.771(c)(3)(ii), the owner or operator shall either:

(A) At the inlet to the bypass device that could divert the steam away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or

(B) If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.

(3) In the event that a leak or defect is detected, the owner or operator shall repair the leak or defect as soon as practicable, except as provided in paragraph (c)(4) of this section.

(i) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(ii) Repair shall be completed no later than 15 calendar days after the leak is detected.

(4) Delay of repair of a closed-vent system or cover for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in § 63.761, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown.

(5) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(5) (i) and (ii) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (c)(2)(i), (ii), and (iii) of this section if:

(i) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (c)(2)(i), (ii), or (iii) of this section; and

(ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(6) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(6) (i) and (ii) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (c)(2)(i), (ii), and (iii) of this section if:

(i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

(7) Records shall be maintained as specified in § 63.774(b)(5) through (8).

(d) *Control device monitoring requirements.* (1) For each control device, except as provided for in paragraph (d)(2) of this section, the owner or operator shall install and operate a continuous parameter monitoring system in accordance with the requirements of paragraphs (d)(3) through (7) of this section. Owners or operators that install and operate a flare in accordance with § 63.771(d)(1)(iii) or (f)(1)(iii) are exempt from the requirements of paragraphs (d)(4) and (5) of this section. The continuous monitoring system shall be designed and operated so that a determination can be made on whether the control device is achieving the applicable performance requirements of § 63.771(d), (e)(3), or (f)(1). Each continuous parameter monitoring system shall meet the following specifications and requirements:

(i) Each continuous parameter monitoring system shall measure data values at least once every hour and record either:

(A) Each measured data value; or

(B) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(ii) A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraph (d) of this section and in § 63.8(d). Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in your approved site-specific monitoring plan. Using the process described in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (d)(1)(ii)(A) through (E) of this section in your site-specific monitoring plan.

(A) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(B) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

(C) Equipment performance checks, system accuracy audits, or other audit procedures;

(D) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1) and (3); and

(E) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).

(iii) The owner or operator must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months.

(iv) The owner or operator must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

(2) An owner or operator is exempt from the monitoring requirements specified in paragraphs (d)(3) through (7) of this section for the following types of control devices:

(i) Except for control devices for small glycol dehydration units, a boiler or process heater in which all vent streams are introduced with the primary fuel or is used as the primary fuel; or

(ii) Except for control devices for small glycol dehydration units, a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts.

(3) The owner or operator shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified in either paragraph (d)(3)(i), (d)(3)(ii), or (d)(3)(iii) of this section.

(i) A continuous monitoring system that measures the following operating parameters as applicable:

(A) For a thermal vapor incinerator that demonstrates during the performance test conducted under § 63.772(e) that the combustion zone temperature is an accurate indicator of performance, a temperature monitoring device equipped with a continuous recorder. The monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature.

(B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(D) For a boiler or process heater, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature.

(E) For a condenser, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

(F) For a regenerative-type carbon adsorption system:

(*1*) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle. The integrating regenerating stream flow monitoring device must have an accuracy of ±10 percent; and

(*2*) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle. The temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater.

(G) For a nonregenerative-type carbon adsorption system, the owner or operator shall monitor the design carbon replacement interval established using a performance test performed in accordance with § 63.772(e)(3) and shall be based on the total carbon working capacity of the control device and source operating schedule.

(H) For a control device model whose model is tested under § 63.772(h):

(*1*) The owner or operator shall determine actual average inlet waste gas flowrate using the model GRI–GLYCalc™, Version 3.0 or higher, ProMax, or AspenTech HYSYS. Inputs to the models shall be representative of actual operating conditions of the controlled unit. The determination shall be performed to coincide with the visible emissions test under § 63.772(i)(3);

(*2*) A heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder. The monitor must meet the requirements of Performance Specification 8 or 9 of appendix B of 40 CFR part 60 and must be installed, calibrated, and maintained according to the manufacturer's specifications.

(iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (d)(3)(i) or (d)(3)(ii) of this section upon approval of the Administrator as specified in § 63.8(f)(1) through (5).

(4) Using the data recorded by the monitoring system, except for inlet gas flowrate, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

(5) For each operating parameter monitor installed in accordance with the requirements of paragraph (d)(3) of this section, the owner or operator shall comply with paragraph (d)(5)(i) of this section for all control devices, and when condensers are installed, the owner or operator shall also comply with paragraph (d)(5)(ii) of this section.

(i) The owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of § 63.771(d)(1), (e)(3)(ii), or (f)(1). Each minimum or maximum operating parameter value shall be established as follows:

(A) If the owner or operator conducts performance tests in accordance with the requirements of § 63.772(e)(3) to demonstrate that the control device achieves the applicable performance requirements specified in § 63.771(d)(1), (e)(3)(ii) or (f)(1), then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by a condenser design analysis or control device manufacturer recommendations or a combination of both.

(B) If the owner or operator uses a condenser design analysis in accordance with the requirements of § 63.772(e)(4) to demonstrate that the control device achieves the applicable performance requirements specified in § 63.771(d)(1), (e)(3)(ii), or (f)(1), then the minimum operating parameter value or the maximum operating parameter value shall be established based on the condenser design analysis and may be supplemented by the condenser manufacturer's recommendations.

(C) If the owner or operator operates a control device where the performance test requirement was met under § 63.772(h) to demonstrate that the control device achieves the applicable performance requirements specified in § 63.771(d)(1), (e)(3)(ii), or (f)(1), then the maximum inlet gas flowrate shall be established based on the performance

test and supplemented, as necessary, by the manufacturer recommendations.

(ii) The owner or operator shall establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established as follows:

(A) If the owner or operator conducts a performance test in accordance with the requirements of § 63.772(e)(3) to demonstrate that the condenser achieves the applicable performance requirements in § 63.771(d)(1), (e)(3)(ii), or (f)(1), then the condenser performance curve shall be based on values measured during the performance test and supplemented as necessary by control device design analysis, or control device manufacturer's recommendations, or a combination of both.

(B) If the owner or operator uses a control device design analysis in accordance with the requirements of § 63.772(e)(4)(i) to demonstrate that the condenser achieves the applicable performance requirements specified in § 63.771(d)(1), (e)(3)(ii), or (f)(1), then the condenser performance curve shall be based on the condenser design analysis and may be supplemented by the control device manufacturer's recommendations.

(C) As an alternative to paragraph (d)(5)(ii)(B) of this section, the owner or operator may elect to use the procedures documented in the GRI report entitled, ''Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions'' (GRI–95/0368.1) as inputs for the model GRI–GLYCalc™, Version 3.0 or higher, to generate a condenser performance curve.

(6) An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (d)(6)(i) through (vi) of this section being met. When multiple operating parameters are monitored for the same control device and during the same operating day and more than one of these operating parameters meets an excursion criterion specified in paragraphs (d)(6)(i) through (vi) of this section, then a single excursion is determined to have occurred for the control device for that operating day.

(i) An excursion occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (d)(5)(i) of this section.

(ii) For sources meeting § 63.771(d)(1)(ii), an excursion occurs when the 365-day average condenser efficiency calculated according to the requirements specified in § 63.772(g)(2)(iii) is less than 95.0 percent. For sources meeting § 63.771(f)(1), an excursion occurs when the 365-day average condenser efficiency calculated according to the requirements specified in § 63.772(g)(2)(iii) is less than 95.0 percent of the identified 365-day required percent reduction.

(iii) For sources meeting § 63.771(d)(1)(ii), if an owner or operator has less than 365 days of data, an excursion occurs when the average condenser efficiency calculated according to the procedures specified in § 63.772(g)(2)(iii)(A) or (B) is less than 90.0 percent. For sources meeting § 63.771(f)(1), an excursion occurs when the 365-day average condenser efficiency calculated according to the requirements specified in § 63.772(g)(2)(iii) is less than the identified 365-day required percent reduction.

(iv) An excursion occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

(v) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, an excursion occurs when:

(A) For each bypass line subject to § 63.771(c)(3)(i)(A) the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.

(B) For each bypass line subject to § 63.771(c)(3)(i)(B), if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.

(vi) For control device whose model is tested under § 63.772(h) an excursion occurs when:

(A) The inlet gas flowrate exceeds the maximum established during the test conducted under § 63.772(h).

(B) Failure of the quarterly visible emissions test conducted under § 63.772(i)(3) occurs.

(7) For each excursion, the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34553, June 29, 2001; 68 FR 37353, June 23, 2003; 71 FR 20457, Apr. 20, 2006; 77 FR 49578, Aug. 16, 2012]

§ 63.774 Recordkeeping requirements.

(a) The recordkeeping provisions of 40 CFR part 63, subpart A, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of this subpart.

(b) Except as specified in paragraphs (c), (d), and (f) of this section, each owner or operator of a facility subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (11) of this section:

(1) The owner or operator of an affected source subject to the provisions of this subpart shall maintain files of all information (including all reports and notifications) required by this subpart. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.

(i) All applicable records shall be maintained in such a manner that they can be readily accessed.

(ii) The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request.

(iii) The remaining 4 years of records may be retained offsite.

(iv) Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(2) Records specified in § 63.10(b)(2);

(3) Records specified in § 63.10(c) for each monitoring system operated by the owner or operator in accordance with the requirements of § 63.773(d). Notwithstanding the requirements of § 63.10(c), monitoring data recorded during periods identified in paragraphs (b)(3)(i) through (iv) of this section shall not be included in any average or percent leak rate computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating or failed to collect required data.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) [Reserved]

(iii) Periods of non-operation resulting in cessation of the emissions to which the monitoring applies; and

(iv) Excursions due to invalid data as defined in § 63.773(d)(6)(iv).

(4) Each owner or operator using a control device to comply with § 63.764 of this subpart shall keep the following records up-to-date and readily accessible:

(i) Continuous records of the equipment operating parameters specified to be monitored under § 63.773(d) or specified by the Administrator in accordance with § 63.773(d)(3)(iii). For flares, the hourly records and records of pilot flame outages specified in paragraph (e) of this section shall be maintained in place of continuous records.

(ii) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in § 63.773(d)(4) of this subpart, except as specified in paragraphs (b)(4)(ii)(A) through (C) of this section.

(A) For flares, the records required in paragraph (e) of this section.

(B) For condensers installed to comply with § 63.765, records of the annual 365-day rolling average condenser efficiency determined under § 63.772(g) shall be kept in addition to the daily averages.

(C) For a control device whose model is tested under § 63.772(h), the records

required in paragraph (h) of this section.

(iii) Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.

(iv) Where a seal or closure mechanism is used to comply with § 63.771(c)(3)(i)(B), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

(5) Records identifying all parts of the cover or closed-vent system that are designated as unsafe to inspect in accordance with § 63.773(c)(5), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(6) Records identifying all parts of the cover or closed-vent system that are designated as difficult to inspect in accordance with § 63.773(c)(6), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(7) For each inspection conducted in accordance with § 63.773(c), during which a leak or defect is detected, a record of the information specified in paragraphs (b)(7)(i) through (b)(7)(viii) of this section.

(i) The instrument identification numbers, operator name or initials, and identification of the equipment.

(ii) The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.

(iii) Maximum instrument reading measured by the method specified in § 63.772(c) after the leak or defect is successfully repaired or determined to be nonrepairable.

(iv) ''Repair delayed'' and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.

(v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.

(vi) The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.

(vii) Dates of shutdowns that occur while the equipment is unrepaired.

(viii) The date of successful repair of the leak or defect.

(ix) Records identifying the carbon replacement schedule under § 63.771(d)(5) and records of each carbon replacement.

(8) For each inspection conducted in accordance with § 63.773(c) during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected.

(9) Records identifying ancillary equipment and compressors that are subject to and controlled under the provisions of 40 CFR part 60, subpart KKK; 40 CFR part 61, subpart V; or 40 CFR part 63, subpart H.

(10) Records of glycol dehydration unit baseline operations calculated as required under § 63.771(e)(1).

(11) Records required in § 63.771(e)(3)(i) documenting that the facility continues to operate under the conditions specified in § 63.771(e)(2).

(c) An owner or operator that elects to comply with the benzene emission limit specified in § 63.765(b)(1)(ii) shall document, to the Administrator's satisfaction, the following items:

(1) The method used for achieving compliance and the basis for using this compliance method; and

(2) The method used for demonstrating compliance with 0.90 megagrams per year of benzene.

(3) Any information necessary to demonstrate compliance as required in the methods specified in paragraphs (c)(1) and (c)(2) of this section.

(d)(1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in § 63.764(e)(1)(i) or § 63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(i) or paragraph (d)(1)(ii) of this section, as appropriate, for that glycol dehydration unit.

(i) The actual annual average natural gas throughput (in terms of natural gas

flowrate to the glycol dehydration unit per day) as determined in accordance with § 63.772(b)(1), or

(ii) The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with § 63.772(b)(2).

(2) An owner or operator that is exempt from the control requirements under § 63.764(e)(2) of this subpart shall maintain the following records:

(i) Information and data used to demonstrate that a piece of ancillary equipment or a compressor is not in VHAP service or not in wet gas service shall be recorded in a log that is kept in a readily accessible location.

(ii) Identification and location of ancillary equipment or compressors, located at a natural gas processing plant subject to this subpart, that is in VHAP service less than 300 hours per year.

(e) Record the following when using a flare to comply with § 63.771(d):

(1) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(2) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by § 63.772(e)(2); and

(3) All hourly records and other recorded periods when the pilot flame is absent.

(f) The owner or operator of an area source not located within a UA plus offset and UC boundary must keep a record of the calculation used to determine the optimum glycol circulation rate in accordance with § 63.764(d)(2)(i) or § 63.764(d)(2)(ii), as applicable.

(g) The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.764(j), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(h) Record the following when using a control device whose model is tested under § 63.772(h) to comply with § 63.771(d), (e)(3)(ii), and (f)(1):

(1) All visible emission readings and flowrate calculations made during the compliance determination required by § 63.772(i); and

(2) All hourly records and other recorded periods when the pilot flame is absent.

(i) The date the semi-annual maintenance inspection required under § 63.773(b) is performed. Include a list of any modifications or repairs made to the control device during the inspection and other maintenance performed such as cleaning of the fuel nozzles.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34554, June 29, 2001; 72 FR 39, Jan. 3, 2007; 77 FR 49579, Aug. 16, 2012]

§ 63.775 Reporting requirements.

(a) The reporting provisions of subpart A of this part, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of this subpart.

(b) Each owner or operator of a major source subject to this subpart shall submit the information listed in paragraphs (b)(1) through (b)(6) of this section, except as provided in paragraphs (b)(7) and (b)(8) of this section.

(1) The initial notifications required for existing affected sources under § 63.9(b)(2) shall be submitted as provided in paragraphs (b)(1)(i) and (ii) of this section.

(i) Except as otherwise provided in paragraph (b)(1)(ii) of this section, the initial notifications shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by June 17, 2000, whichever is later. Affected sources that are major sources on or before June 17, 2000, and plan to be area sources by June 17, 2002, shall include in this notification a brief, nonbinding description of a schedule for the action(s) that are planned to achieve area source status.

(ii) An affected source identified under § 63.760(f)(7) or (9) shall submit an initial notification required for existing affected sources under § 63.9(b)(2) within 1 year after the affected source becomes subject to the provisions of

this subpart or by October 15, 2013, whichever is later. An affected source identified under § 63.760(f)(7) or (9) that plans to be an area source by October 15, 2015, shall include in this notification a brief, nonbinding description of a schedule for the action(s) that are planned to achieve area source status.

(2) The date of the performance evaluation as specified in § 63.8(e)(2), required only if the owner or operator is required by the Administrator to conduct a performance evaluation for a continuous monitoring system. A separate notification of the performance evaluation is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.

(3) The planned date of a performance test at least 60 days before the test in accordance with § 63.7(b). Unless requested by the Administrator, a site-specific test plan is not required by this subpart. If requested by the Administrator, the owner or operator must also submit the site-specific test plan required by § 63.7(c) with the notification of the performance test. A separate notification of the performance test is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.

(4) A Notification of Compliance Status report as described in paragraph (d) of this section;

(5) Periodic Reports as described in paragraph (e) of this section; and

(6) If there was a malfunction during the reporting period, the Periodic Report specified in paragraph (e) of this section shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.764(j), including actions taken to correct a malfunction.

(7) [Reserved]

(8) Each owner or operator of ancillary equipment and compressors subject to this subpart that are exempt from the control requirements for equipment leaks in § 63.769, are exempt from all reporting requirements for major sources in this subpart, for that equipment.

(c) Except as provided in paragraph (c)(8), each owner or operator of an area source subject to this subpart shall submit the information listed in paragraph (c)(1) of this section. If the source is located within a UA plus offset and UC boundary, the owner or operator shall also submit the information listed in paragraphs (c)(2) through (6) of this section. If the source is not located within any UA plus offset and UC boundaries, the owner or operator shall also submit the information listed within paragraph (c)(7).

(1) The initial notifications required under § 63.9(b)(2) not later than January 3, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later. In addition to submitting your initial notification to the addressees specified under § 63.9(a), you must also submit a copy of the initial notification to the EPA's Office of Air Quality Planning and Standards. Send your notification via email to *Oil and Gas Sector@epa.gov* or via U.S. mail or other mail delivery service to U.S. EPA, Sector Policies and Programs Division/Fuels and Incineration Group (E143–01), Attn: Oil and Gas Project Leader, Research Triangle Park, NC 27711.

(2) The date of the performance evaluation as specified in § 63.8(e)(2) if an owner or operator is required by the Administrator to conduct a performance evaluation for a continuous monitoring system.

(3) The planned date of a performance test at least 60 days before the test in accordance with § 63.7(b). Unless requested by the Administrator, a site-specific test plan is not required by this subpart. If requested by the Administrator, the owner or operator must submit the site-specific test plan required by § 63.7(c) with the notification of the performance test. A separate notification of the performance test is not required if it is included in the initial notification submitted in accordance with paragraph (c)(1) of this section.

(4) A Notification of Compliance Status as described in paragraph (d) of this section;

(5) Periodic reports as described in paragraph (e)(3) of this section; and

(6) If there was a malfunction during the reporting period, the Periodic Report specified in paragraph (e) of this section shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.764(j), including actions taken to correct a malfunction.

(7) The information listed in paragraphs (c)(1)(i) through (v) of this section. This information shall be submitted with the initial notification.

(i) Documentation of the source's location relative to the nearest UA plus offset and UC boundaries. This information shall include the latitude and longitude of the affected source; whether the source is located in an urban cluster with 10,000 people or more; the distance in miles to the nearest urbanized area boundary if the source is not located in an urban cluster with 10,000 people or more; and the name of the nearest urban cluster with 10,000 people or more and nearest urbanized area.

(ii) Calculation of the optimum glycol circulation rate determined in accordance with § 63.764(d)(2)(i).

(iii) If applicable, documentation of the alternate glycol circulation rate calculated using GRI-GLYCalc™, Version 3.0 or higher and documentation stating why the TEG dehydration unit must operate using the alternate glycol circulation rate.

(iv) The name of the manufacturer and the model number of the glycol circulation pump(s) in operation.

(v) Statement by a responsible official, with that official's name, title, and signature, certifying that the facility will always operate the glycol dehydration unit using the optimum circulation rate determined in accordance with § 63.764(d)(2)(i) or § 63.764(d)(2)(ii), as applicable.

(8) An owner or operator of a TEG dehydration unit located at an area source that meets the criteria in § 63.764(e)(1)(i) or § 63.764(e)(1)(ii) is exempt from the reporting requirements for area sources in paragraphs (c)(1) through (7) of this section, for that unit.

(d) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status Report as required under § 63.9(h) within 180 days after the compliance date specified in § 63.760(f). In addition to the information required under § 63.9(h), the Notification of Compliance Status Report shall include the information specified in paragraphs (d)(1) through (12) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If all of the information required under this paragraph has been submitted at any time prior to 180 days after the applicable compliance dates specified in § 63.760(f), a separate Notification of Compliance Status Report is not required. If an owner or operator submits the information specified in paragraphs (d)(1) through (12) of this section at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information.

(1) If a closed-vent system and a control device other than a flare are used to comply with § 63.764, the owner or operator shall submit the information in paragraph (d)(1)(iii) of this section and the information in either paragraph (d)(1)(i) or (ii) of this section.

(i) The condenser design analysis documentation specified in § 63.772(e)(4) of this subpart, if the owner or operator elects to prepare a design analysis.

(ii) If the owner or operator is required to conduct a performance test, the performance test results including the information specified in paragraphs (d)(1)(ii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.772(e)(3) and that the

test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under § 63.772(h), an electronic copy of the performance test results shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following Web site: *epa.gov/airquality/oilandgas/*.

(A) The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in § 63.772(e)(3) of this subpart; and

(B) The value of the monitored parameters specified in § 773(d) of this subpart, or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.

(iii) The results of the closed-vent system initial inspections performed according to the requirements in § 63.773(c)(2)(i) and (ii).

(2) If a closed-vent system and a flare are used to comply with § 63.764, the owner or operator shall submit performance test results including the information in paragraphs (d)(2)(i) and (ii) of this section. The owner or operator shall also submit the information in paragraph (d)(2)(iii) of this section.

(i) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by § 63.772(e)(2) of this subpart.

(ii) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

(iii) The results of the closed-vent system initial inspections performed according to the requirements in § 63.773(c)(2)(i) and (ii).

(3) For each owner or operator subject to the provisions specified in § 63.769, the owner or operator shall submit the information required by § 61.247(a), except that the initial report required in § 61.247(a) shall be submitted as a part of the Notification of Compliance Status Report required in paragraph (d) of this section. The owner or operator shall also submit the information specified in paragraphs (d)(3) (i) and (ii) of this section.

(i) The number of each equipment (e.g., valves, pumps, etc.) excluding equipment in vacuum service, and

(ii) Any change in the information submitted in this paragraph shall be provided to the Administrator as a part of subsequent Periodic Reports described in paragraph (e)(2)(iv) of this section.

(4) The owner or operator shall submit one complete test report for each test method used for a particular source.

(i) For additional tests performed using the same test method, the results specified in paragraph (d)(1)(ii) of this section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(5) For each control device other than a flare used to meet the requirements of § 63.764, the owner or operator shall submit the information specified in paragraphs (d)(5) (i) through (iii) of this section for each operating parameter required to be monitored in accordance with the requirements of § 63.773(d).

(i) The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of § 63.771(d)(1) or (e)(3)(ii).

(ii) An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in § 63.773(d)(5). This explanation shall include any data and calculations used to develop the value and a description of why the chosen value

indicates that the control device is operating in accordance with the applicable requirements of §63.771(d)(1), (e)(3)(ii) or (f)(1).

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(iv) For each carbon adsorber, the predetermined carbon replacement schedule as required in §63.771(d)(5)(i).

(6) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.

(7) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this subpart. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.

(8) The owner or operator that elects to comply with the requirements of §63.765(b)(1)(ii) shall submit the records required under §63.774(c).

(9) The owner or operator shall submit the analysis performed under §63.760(a)(1).

(10) The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.

(11) The owner or operator shall submit the analysis prepared under §63.771(e)(2) to demonstrate the conditions by which the facility will be operated to achieve the HAP emission reduction of 95.0 percent, or the BTEX limit in §63.765(b)(1)(iii), through process modifications or a combination of process modifications and one or more control devices.

(12) If a cover is installed to comply with §63.764, the results of the initial inspection performed according to the requirements specified in §63.773(c)(2)(iii).

(13) If the owner or operator installs a combustion control device model tested under the procedures in §63.772(h), the data listed under §63.772(h)(8).

(14) For each combustion control device model tested under §63.772(h), the information listed in paragraphs (d)(14)(i) through (vi) of this section.

(i) Name, address and telephone number of the control device manufacturer.

(ii) Control device model number.

(iii) Control device serial number.

(iv) Date the model of control device was tested by the manufacturer.

(v) Manufacturer's HAP destruction efficiency rating.

(vi) Control device operating parameters, maximum allowable inlet gas flowrate.

(e) *Periodic Reports.* An owner or operator of a major source shall prepare Periodic Reports in accordance with paragraphs (e) (1) and (2) of this section and submit them to the Administrator. An owner or operator of an area source shall prepare Periodic Reports in accordance with paragraph (e)(3) of this section and submit them to the Administrator.

(1) An owner or operator shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due.

(2) The owner or operator shall include the information specified in paragraphs (e)(2)(i) through (ix) of this section, as applicable.

(i) The information required under §63.10(e)(3). For the purposes of this subpart and the information required under §63.10(e)(3), excursions (as defined in §63.773(d)(6)) shall be considered excess emissions.

(ii) A description of all excursions as defined in §63.773(d)(6) of this subpart that have occurred during the 6-month reporting period.

(A) For each excursion caused when the daily average value of a monitored operating parameter is less than the

minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), as specified in §63.773(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.

(B) For each excursion caused when the 365-day average condenser control efficiency is less than the value specified in §63.773(d)(6)(ii), the report must include the 365-day average values of the condenser control efficiency, and the date and duration of the period that the excursion occurred.

(C) For each excursion caused when condenser control efficiency is less than the value specified in §63.773(d)(6)(iii), the report must include the average values of the condenser control efficiency, and the date and duration of the period that the excursion occurred.

(D) For each excursion caused by the lack of monitoring data, as specified in §63.773(d)(6)(iv), the report must include the date and duration of the period when the monitoring data were not collected and the reason why the data were not collected.

(E) For each excursion caused when the maximum inlet gas flowrate identified under §63.772(h) is exceeded, the report must include the values of the inlet gas identified and the date and duration of the period that the excursion occurred.

(F) For each excursion caused when visible emissions determined under §63.772(i) exceed the maximum allowable duration, the report must include the date and duration of the period that the excursion occurred, repairs affected to the unit, and date the unit was returned to service.

(iii) For each inspection conducted in accordance with §63.773(c) during which a leak or defect is detected, the records specified in §63.774(b)(7) must be included in the next Periodic Report.

(iv) For each owner or operator subject to the provisions specified in §63.769, the owner or operator shall comply with the reporting requirements specified in 40 CFR 61.247, except that the Periodic Reports shall be submitted on the schedule specified in paragraph (e)(1) of this section.

(v) For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(A), records required under §63.774(b)(4)(iii) of all periods when the vent stream is diverted from the control device through a bypass line. For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(B), records required under §63.774(b)(4)(iv) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.

(vi) If an owner or operator elects to comply with §63.765(b)(1)(ii), the records required under §63.774(c)(3).

(vii) The information in paragraphs (e)(2)(vii) (A) and (B) of this section shall be stated in the Periodic Report, when applicable.

(A) No excursions.

(B) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.

(viii) Any change in compliance methods as specified in §63.772(f).

(ix) If the owner or operator elects to comply with §63.765(c)(2), the records required under §63.774(b)(11).

(x) For flares, the records specified in §63.774(e)(3).

(xi) The results of any periodic test as required in §63.772(e)(3) conducted during the reporting period.

(xii) For each carbon adsorber used to meet the control device requirements of §63.771(d)(1), records of each carbon replacement that occurred during the reporting period.

(xiii) For combustion control device inspections conducted in accordance with §63.773(b) the records specified in §63.774(i).

(xiv) Certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(3) An owner or operator of an area source located inside a UA plus offset and UC boundary shall prepare and submit Periodic Reports in accordance

with paragraphs (e)(3)(i) through (iii) of this section.

(i) Periodic reports must be submitted on an annual basis. The first reporting period shall cover the period beginning on the date the Notification of Compliance Status Report is due and ending on December 31. The report shall be submitted within 30 days after the end of the reporting period.

(ii) Subsequent reporting periods begin every January 1 and end on December 31. Subsequent reports shall be submitted within 30 days following the end of the reporting period.

(iii) The periodic reports must contain the information included in paragraph (e)(2) of this section.

(f) *Notification of process change.* Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under paragraph (e) of this section, whichever is sooner. The report shall include:

(1) A brief description of the process change;

(2) A description of any modification to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of this section; and

(4) Information required by the Notification of Compliance Status Report under paragraph (d) of this section for changes involving the addition of processes or equipment.

(g) *Electronic reporting.* (1) Within 60 days after the date of completing each performance test (defined in §63.2) as required by this subpart you must submit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.

(2) All reports required by this subpart not subject to the requirements in paragraph (g)(1) of this section must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (g)(1) of this section in paper format.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34554, June 29, 2001; 72 FR 39, Jan. 3, 2007; 77 FR 49580, Aug. 16, 2012; 85 FR 73894, Nov. 19, 2020]

§ 63.776 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart

is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.760, 63.764 through 63.766, 63.769, 63.771, and 63.777.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

§ 63.777 Alternative means of emission limitation.

(a) If, in the judgment of the Administrator, an alternative means of emission limitation will achieve a reduction in HAP emissions at least equivalent to the reduction in HAP emissions from that source achieved under the applicable requirements in §§ 63.764 through 63.771, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement. The notice may condition the permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section shall be published only after public notice and an opportunity for a hearing.

(c) Any person seeking permission to use an alternative means of compliance under this section shall collect, verify, and submit to the Administrator information demonstrating that the alternative achieves equivalent emission reductions.

§§ 63.778–63.779 [Reserved]

APPENDIX TO SUBPART HH OF PART 63—TABLES

TABLE 1 TO SUBPART HH OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS FOR SUBPART HH

CAS Number[a]	Chemical name
75070	Acetaldehyde
71432	Benzene (includes benzene in gasoline)
75150	Carbon disulfide
463581	Carbonyl sulfide
100414	Ethyl benzene
107211	Ethylene glycol
50000	Formaldehyde
110543	n-Hexane
91203	Naphthalene
108883	Toluene
540841	2,2,4-Trimethylpentane
1330207	Xylenes (isomers and mixture)
95476	o-Xylene
108383	m-Xylene
106423	p-Xylene

[a] CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

TABLE 2 TO SUBPART HH OF PART 63—APPLICABILITY OF 40 CFR PART 63 GENERAL PROVISIONS TO SUBPART HH

General provisions reference	Applicable to subpart HH	Explanation
§ 63.1(a)(1)	Yes.	
§ 63.1(a)(2)	Yes.	
§ 63.1(a)(3)	Yes.	
§ 63.1(a)(4)	Yes.	
§ 63.1(a)(5)	No	Section reserved.
§ 63.1(a)(6)	Yes.	
§ 63.1(a)(7) through (a)(9)	No	Section reserved.
§ 63.1(a)(10)	Yes.	
§ 63.1(a)(11)	Yes.	
§ 63.1(a)(12)	Yes.	
§ 63.1(b)(1)	No	Subpart HH specifies applicability.
§ 63.1(b)(2)	No	Section reserved.
§ 63.1(b)(3)	Yes.	
§ 63.1(c)(1)	No	Subpart HH specifies applicability.

TABLE 2 TO SUBPART HH OF PART 63—APPLICABILITY OF 40 CFR PART 63 GENERAL PROVISIONS TO SUBPART HH—Continued

General provisions reference	Applicable to subpart HH	Explanation
§63.1(c)(2)	Yes	Subpart HH exempts area sources from the requirement to obtain a Title V permit unless otherwise required by law as specified in §63.760(h).
§63.1(c)(3) and (c)(4)	No	Section reserved.
§63.1(c)(5)	Yes.	
§63.1(c)(6)	Yes.	
§63.1(d)	No	Section reserved.
§63.1(e)	Yes.	
§63.2	Yes	Except definition of major source is unique for this source category and there are additional definitions in subpart HH.
§63.3(a) through (c)	Yes.	
§63.4(a)(1) through (a)(2)	Yes.	
§63.4(a)(3) through (a)(5)	No	Section reserved.
§63.4(b)	Yes.	
§63.4(c)	Yes.	
§63.5(a)(1)	Yes.	
§63.5(a)(2)	Yes.	
§63.5(b)(1)	Yes.	
§63.5(b)(2)	No	Section reserved.
§63.5(b)(3)	Yes.	
§63.5(b)(4)	Yes.	
§63.5(b)(5)	No	Section Reserved.
§63.5(b)(6)	Yes.	
§63.5(c)	No	Section reserved.
§63.5(d)(1)	Yes.	
§63.5(d)(2)	Yes.	
§63.5(d)(3)	Yes.	
§63.5(d)(4)	Yes.	
§63.5(e)	Yes.	
§63.5(f)(1)	Yes.	
§63.5(f)(2)	Yes.	
§63.6(a)	Yes.	
§63.6(b)(1)	Yes.	
§63.6(b)(2)	Yes.	
§63.6(b)(3)	Yes.	
§63.6(b)(4)	Yes.	
§63.6(b)(5)	Yes.	
§63.6(b)(6)	No	Section reserved.
§63.6(b)(7)	Yes.	
§63.6(c)(1)	Yes.	
§63.6(c)(2)	Yes.	
§63.6(c)(3) through (c)(4)	No	Section reserved.
§63.6(c)(5)	Yes.	
§63.6(d)	No	Section reserved.
§63.6(e)(1)(i)	No	See §63.764(j) for general duty requirement.
§63.6(e)(1)(ii)	No.	
§63.6(e)(1)(iii)	Yes.	
§63.6(e)(2)	No	Section reserved.
§63.6(e)(3)	No.	
§63.6(f)(1)	No.	
§63.6(f)(2)	Yes.	
§63.6(f)(3)	Yes.	
§63.6(g)	Yes.	
§63.6(h)(1)	No.	
§63.6(h)(2) through (h)(9)	Yes.	
§63.6(i)(1) through (i)(14)	Yes.	
§63.6(i)(15)	No	Section reserved.
§63.6(i)(16)	Yes.	
§63.6(j)	Yes.	
§63.7(a)(1)	Yes.	
§63.7(a)(2)	Yes	But the performance test results must be submitted within 180 days after the compliance date.
§63.7(a)(3)	Yes.	
§63.7(a)(4)	Yes.	
§63.7(c)	Yes.	
§63.7(d)	Yes.	
§63.7(e)(1)	No.	
§63.7(e)(2)	Yes.	
§63.7(e)(3)	Yes.	
§63.7(e)(4)	Yes.	

TABLE 2 TO SUBPART HH OF PART 63—APPLICABILITY OF 40 CFR PART 63 GENERAL PROVISIONS TO SUBPART HH—Continued

General provisions reference	Applicable to subpart HH	Explanation
§63.7(f)	Yes.	
§63.7(g)	Yes.	
§63.7(h)	Yes.	
§63.8(a)(1)	Yes.	
§63.8(a)(2)	Yes.	
§63.8(a)(3)	No	Section reserved.
§63.8(a)(4)	Yes.	
§63.8(b)(1)	Yes.	
§63.8(b)(2)	Yes.	
§63.8(b)(3)	Yes.	
§63.8(c)(1)	No.	
§63.8(c)(1)(i)	No.	
§63.8(c)(1)(ii)	Yes.	
§63.8(c)(1)(iii)	No.	
§63.8(c)(2)	Yes.	
§63.8(c)(3)	Yes.	
§63.8(c)(4)	Yes.	
§63.8(c)(4)(i)	No	Subpart HH does not require continuous opacity monitors.
§63.8(c)(4)(ii)	Yes.	
§63.8(c)(5) through (c)(8)	Yes.	
§63.8(d)(1)	Yes.	
§63.8(d)(2)	Yes.	
§63.8(d)(3)	Yes	Except for last sentence, which refers to an SSM plan. SSM plans are not required.
§63.8(e)	Yes	Subpart HH does not specifically require continuous emissions monitor performance evaluation, however, the Administrator can request that one be conducted.
§63.8(f)(1) through (f)(5)	Yes.	
§63.8(f)(6)	Yes.	
§63.8(g)	No	Subpart HH specifies continuous monitoring system data reduction requirements.
§63.9(a)	Yes.	
§63.9(b)(1)	Yes.	
§63.9(b)(2)	Yes	Existing sources are given 1 year (rather than 120 days) to submit this notification. Major and area sources that meet §63.764(e) do not have to submit initial notifications.
§63.9(b)(3)	No	Section reserved.
§63.9(b)(4)	Yes.	
§63.9(b)(5)	Yes.	
§63.9(c)	Yes.	
§63.9(d)	Yes.	
§63.9(e)	Yes.	
§63.9(f)	Yes.	
§63.9(g)	Yes.	
§63.9(h)(1) through (h)(3)	Yes	Area sources located outside UA plus offset and UC boundaries are not required to submit notifications of compliance status.
§63.9(h)(4)	No	Section reserved.
§63.9(h)(5) through (h)(6)	Yes.	
§63.9(i)	Yes.	
§63.9(j)	Yes.	
§63.9(k)	Yes	Only as specified in §63.9(j).
§63.10(a)	Yes.	
§63.10(b)(1)	Yes	§63.774(b)(1) requires sources to maintain the most recent 12 months of data on-site and allows offsite storage for the remaining 4 years of data.
§63.10(b)(2)	Yes.	
§63.10(b)(2)(i)	No.	
§63.10(b)(2)(ii)	No	See §63.774(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions.
§63.10(b)(2)(iii)	Yes.	
§63.10(b)(2)(iv) through (b)(2)(v)	No.	
§63.10(b)(2)(vi) through (b)(2)(xiv).	Yes.	
§63.10(b)(3)	Yes	§63.774(b)(1) requires sources to maintain the most recent 12 months of data on-site and allows offsite storage for the remaining 4 years of data.
§63.10(c)(1)	Yes.	
§63.10(c)(2) through (c)(4)	No	Sections reserved.
§63.10(c)(5) through (c)(8)	Yes.	
§63.10(c)(9)	No	Section reserved.

TABLE 2 TO SUBPART HH OF PART 63—APPLICABILITY OF 40 CFR PART 63 GENERAL PROVISIONS TO SUBPART HH—Continued

General provisions reference	Applicable to subpart HH	Explanation
§ 63.10(c)(10) through (11)	No	See § 63.774(g) for recordkeeping of malfunctions.
§ 63.10(c)(12) through (14)	Yes.	
§ 63.10(c)(15)	No.	
§ 63.10(d)(1)	Yes.	
§ 63.10(d)(2)	Yes	Area sources located outside UA plus offset and UC boundaries do not have to submit performance test reports.
§ 63.10(d)(3)	Yes.	
§ 63.10(d)(4)	Yes.	
§ 63.10(d)(5)	No	See § 63.775(b)(6) or (c)(6) for reporting of malfunctions.
§ 63.10(e)(1)	Yes	Area sources located outside UA plus offset and UC boundaries are not required to submit reports.
§ 63.10(e)(2)	Yes	Area sources located outside UA plus offset and UC boundaries are not required to submit reports.
§ 63.10(e)(3)(i)	Yes	Subpart HH requires major sources to submit Periodic Reports semi-annually. Area sources are required to submit Periodic Reports annually. Area sources located outside UA plus offset and UC boundaries are not required to submit reports.
§ 63.10(e)(3)(i)(A)	Yes.	
§ 63.10(e)(3)(i)(B)	Yes.	
§ 63.10(e)(3)(i)(C)	No.	
§ 63.10(e)(3)(i)(D)	Yes	Section reserved.
§ 63.10(e)(3)(ii) through (viii)	Yes.	
§ 63.10(e)(4)	Yes.	
§ 63.10(f)	Yes.	
§ 63.11(a) and (b)	Yes.	
§ 63.11(c), (d), and (e)	Yes.	
§ 63.12(a) through (c)	Yes.	
§ 63.13(a) through (c)	Yes.	
§ 63.14(a) through (q)	Yes.	
§ 63.15(a) and (b)	Yes.	
§ 63.16	Yes.	

[64 FR 32628, June 17, 1999, as amended at 66 FR 34554, June 29, 2001; 71 FR 20457, Apr. 20, 2006; 72 FR 40, Jan. 3, 2007; 73 FR 78214, Dec. 22, 2008; 77 FR 49581, Aug. 16, 2012; 85 FR 73894, Nov. 19, 2020]

Subpart II—National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)

SOURCE: 60 FR 64336, Dec. 15, 1995, unless otherwise noted.

§ 63.780 Relationship of subpart II to subpart A of this part.

Table 1 of this subpart specifies the provisions of subpart A of this part that apply to owners and operators of sources subject to the provisions of this subpart.

§ 63.781 Applicability.

(a) The provisions of this subpart apply to shipbuilding and ship repair operations at any facility that is a major source.

(b) The provisions of this subpart do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total volume of coating exempt under this paragraph does not exceed 1,000 liters per year (264 gallons per year) at any facility. Coatings exempt under this paragraph shall be clearly labeled as ''low-usage exempt,'' and the volume of each such coating applied shall be maintained in the facility's records.

(c) The provisions of this subpart do not apply to coatings applied with hand-held, nonrefillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are subject to this subpart.

(d) If you are authorized in accordance with 40 CFR 63.783(c) to use an add-on control system as an alternative means of limiting emissions from coating operations, in response to

an action to enforce the standards set forth in this subpart, you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by a malfunction, as defined in 40 CFR 63.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all the requirements in the affirmative defense. The affirmative defense shall not be available in response to claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (d)(2) of this section, and must prove by a preponderance of evidence that:

(i) The excess emissions:

(A) Were caused by a sudden, infrequent and unavoidable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury or severe property damage; and

(v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(2) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (d)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

[60 FR 64336, Dec. 15, 1995, as amended at 76 FR 72068, Nov. 21, 2011]

§ 63.782 Definitions.

Terms used in this subpart are defined in the Clean Air Act (CAA), in

subpart A of part 63, or in this section as follows:

Add-on control system means an air pollution control device such as a carbon absorber or incinerator that reduces pollution in an air stream by destruction or removal prior to discharge to the atmosphere.

Affected source means any shipbuilding or ship repair facility having surface coating operations with a minimum 1,000 liters (L) (264 gallons [gal]) annual marine coating usage that is subject to this subpart.

Affirmative defense means, in the context of an enforcement proceeding, a response or a defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Air flask specialty coating means any special composition coating applied to interior surfaces of high pressure breathing air flasks to provide corrosion resistance and that is certified safe for use with breathing air supplies.

Antenna specialty coating means any coating applied to equipment through which electromagnetic signals must pass for reception or transmission.

Antifoulant specialty coating means any coating that is applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and that is registered with the EPA as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act.

As applied means the condition of a coating at the time of application to the substrate, including any thinning solvent.

As supplied means the condition of a coating before any thinning, as sold and delivered by the coating manufacturer to the user.

Batch means the product of an individual production run of a coating manufacturer's process. A batch may vary in composition from other batches of the same product.

Bitumens mean black or brown materials that are soluble in carbon disulfide and consist mainly of hydrocarbons.

Bituminous resin coating means any coating that incorporates bitumens as a principal component and is formulated primarily to be applied to a substrate or surface to resist ultraviolet radiation and/or water.

Certify means, in reference to the volatile organic compounds (VOC) content or volatile organic hazardous air pollutants (VOHAP) content of a coating, to attest to the VOC content as determined through analysis by Method 24 of appendix A to 40 CFR part 60 or through use of forms and procedures outlined in appendix A of this subpart, or to attest to the VOHAP content as determined through an Administrator-approved test method. In the case of conflicting results, Method 24 of appendix A to 40 CFR part 60 shall take precedence over the forms and procedures outlined in appendix A to this subpart for the options in which VOC is used as a surrogate for VOHAP.

Coating means any material that can be applied as a thin layer to a substrate and which cures to form a continuous solid film.

Cold-weather time period means any time during which the ambient temperature is below 4.5 °C (40 °F) and coating is to be applied.

Container of coating means the container from which the coating is applied, including but not limited to a bucket or pot.

Cure volatiles means reaction products which are emitted during the chemical reaction which takes place in some coating films at the cure temperature. These emissions are other than those from the solvents in the coating and may, in some cases, comprise a significant portion of total VOC and/or VOHAP emissions.

Epoxy means any thermoset coating formed by reaction of an epoxy resin (i.e., a resin containing a reactive epoxide with a curing agent).

Exempt compounds means specified organic compounds that are not considered VOC due to negligible photochemical reactivity. Exempt compounds are specified in 40 CFR 51.100(s).

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

General use coating means any coating that is not a specialty coating.

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

Heat resistant specialty coating means any coating that during normal use must withstand a temperature of at least 204 °C (400 °F).

High-gloss specialty coating means any coating that achieves at least 85 percent reflectance on a 60 degree meter when tested by ASTM D523–89 (incorporation by reference—see § 63.14).

High-temperature specialty coating means any coating that during normal use must withstand a temperature of at least 426 °C (800 °F).

Inorganic zinc (high-build) specialty coating means a coating that contains 960 grams per liter (8 pounds per gallon) or more elemental zinc incorporated into an inorganic silicate binder that is applied to steel to provide galvanic corrosion resistance. (These coatings are typically applied at more than 2 mil dry film thickness.)

Major source means any source that emits or has the potential to emit, in the aggregate, 9.1 megagrams per year (10 tons per year) or more of any HAP or 22.7 megagrams per year (25 tons per year) or more of any combination of HAP.

Maximum allowable thinning ratio means the maximum volume of thinner that can be added per volume of coating without violating the standards of § 63.783(a), as determined using Equation 1 of this subpart.

Military exterior specialty coating or Chemical Agent Resistant Coatings (''CARC'') means any exterior topcoat applied to military or U.S. Coast Guard vessels that are subject to specific chemical, biological, and radiological washdown requirements.

Mist specialty coating means any low viscosity, thin film, epoxy coating applied to an inorganic zinc primer that penetrates the porous zinc primer and allows the occluded air to escape through the paint film prior to curing.

Navigational aids specialty coating means any coating applied to Coast Guard buoys or other Coast Guard waterway markers when they are recoated aboard ship at their usage site and immediately returned to the water.

Nonskid specialty coating means any coating applied to the horizontal surfaces of a marine vessel for the specific purpose of providing slip resistance for personnel, vehicles, or aircraft.

Nonvolatiles (or volume solids) means substances that do not evaporate readily. This term refers to the film-forming material of a coating.

Normally closed means a container or piping system is closed unless an operator is actively engaged in adding or removing material.

Nuclear specialty coating means any protective coating used to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM D4082–89 [incorporation by reference—see § 63.14]), relatively easy to decontaminate (ASTM D4256–89 or 94 [reapproved 1994] [incorporation by reference—see § 63.14]), and resistant to various chemicals to which the coatings are likely to be exposed (ASTM D3912–80 [incorporation by reference—see § 63.14]). [For nuclear coatings, see the general protective requirements outlined by the U.S. Nuclear Regulatory Commission in a report entitled ''U.S. Atomic Energy Commission Regulatory Guide 1.54'' dated June 1973, available through the Government Printing Office at (202) 512–2249 as document number A74062–00001.]

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Organic zinc specialty coating means any coating derived from zinc dust incorporated into an organic binder that contains more than 960 grams of elemental zinc per liter (8 pounds per gallon) of coating, as applied, and that is used for the expressed purpose of corrosion protection.

Pleasure craft means any marine or fresh-water vessel used by individuals for noncommercial, nonmilitary, and recreational purposes that is less than

20 meters in length. A vessel rented exclusively to or chartered by individuals for such purposes shall be considered a pleasure craft.

Pretreatment wash primer specialty coating means any coating that contains a minimum of 0.5 percent acid, by mass, and is applied only to bare metal to etch the surface and enhance adhesion of subsequent coatings.

Repair and maintenance of thermoplastic coating of commercial vessels (specialty coating) means any vinyl, chlorinated rubber, or bituminous resin coating that is applied over the same type of existing coating to perform the partial recoating of any in-use commercial vessel. (This definition does not include coal tar epoxy coatings, which are considered ''general use'' coatings.)

Rubber camouflage specialty coating means any specially formulated epoxy coating used as a camouflage topcoat for exterior submarine hulls and sonar domes.

Sealant for thermal spray aluminum means any epoxy coating applied to thermal spray aluminum surfaces at a maximum thickness of 1 dry mil.

Ship means any marine or freshwater vessel used for military or commercial operations, including self-propelled vessels, those propelled by other craft (barges), and navigational aids (buoys). This definition includes, but is not limited to, all military and Coast Guard vessels, commercial cargo and passenger (cruise) ships, ferries, barges, tankers, container ships, patrol and pilot boats, and dredges. For purposes of this subpart, pleasure crafts and offshore oil and gas drilling platforms are not considered ships.

Shipbuilding and ship repair operations means any building, repair, repainting, converting, or alteration of ships.

Special marking specialty coating means any coating that is used for safety or identification applications, such as markings on flight decks and ships' numbers.

Specialty coating means any coating that is manufactured and used for one of the specialized applications described within this list of definitions.

Specialty interior coating means any coating used on interior surfaces aboard U.S. military vessels pursuant to a coating specification that requires the coating to meet specified fire retardant and low toxicity requirements, in addition to the other applicable military physical and performance requirements.

Tack specialty coating means any thin film epoxy coating applied at a maximum thickness of 2 dry mils to prepare an epoxy coating that has dried beyond the time limit specified by the manufacturer for the application of the next coat.

Thinner means a liquid that is used to reduce the viscosity of a coating and that evaporates before or during the cure of a film.

Thinning ratio means the volumetric ratio of thinner to coating, as supplied.

Thinning solvent: see Thinner.

Undersea weapons systems specialty coating means any coating applied to any component of a weapons system intended to be launched or fired from under the sea.

Volatile organic compounds (VOC) is as defined in § 51.100(s) of this chapter.

Volatile organic hazardous air pollutants (VOHAP) means any compound listed in or pursuant to section 112(b) of the CAA that contains carbon, excluding metallic carbides and carbonates. This definition includes VOC listed as HAP and exempt compounds listed as HAP.

Weld-through preconstruction primer (specialty coating) means a coating that provides corrosion protection for steel during inventory, is typically applied at less than 1 mil dry film thickness, does not require removal prior to welding, is temperature resistant (burn back from a weld is less than 1.25 centimeters [0.5 inch]), and does not normally require removal before applying film-building coatings, including inorganic zinc high-build coatings. When constructing new vessels, there may be a need to remove areas of weld-through preconstruction primer due to surface damage or contamination prior to application of film-building coatings.

[60 FR 64336, Dec. 15, 1995, as amended at 65 FR 62215, Oct. 17, 2000; 76 FR 72069, Nov. 21, 2011]

§ 63.783 Standards.

(a) No owner or operator of any existing or new affected source shall cause

or allow the application of any coating to a ship with an as-applied VOHAP content exceeding the applicable limit given in Table 2 of this subpart, as determined by the procedures described in § 63.785 (c)(1) through (c)(4). For the compliance procedures described in § 63.785 (c)(1) through (c)(3), VOC shall be used as a surrogate for VOHAP, and Method 24 of appendix A to 40 CFR part 60 shall be used as the definitive measure for determining compliance. For the compliance procedure described in § 63.785(c)(4), an alternative test method capable of measuring independent VOHAP shall be used to determine compliance. The method must be submitted to and approved by the Administrator.

(b) Each owner or operator of a new or existing affected source shall ensure that:

(1) At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(2) All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

(3) All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

(c) *Approval of alternative means of limiting emissions.* (1) The owner or operator of an affected source may apply to the Administrator for permission to use an alternative means (such as an add-on control system) of limiting emissions from coating operations. The application must include:

(i) An engineering material balance evaluation that provides a comparison of the emissions that would be achieved using the alternative means to those that would result from using coatings that comply with the limits in Table 2 of this subpart, or the results from an emission test that accurately measures the capture efficiency and control device efficiency achieved by the control system and the composition of the associated coatings so that the emissions comparison can be made;

(ii) A proposed monitoring protocol that includes operating parameter values to be monitored for compliance and an explanation of how the operating parameter values will be established through a performance test; and

(iii) Details of appropriate recordkeeping and reporting procedures.

(2) The Administrator shall approve the alternative means of limiting emissions if, in the Administrator's judgment, postcontrol emissions of VOHAP per volume applied solids will be no greater than those from the use of coatings that comply with the limits in Table 2 of this subpart.

(3) The Administrator may condition approval on operation, maintenance, and monitoring requirements to ensure that emissions from the source are no greater than those that would otherwise result from this subpart.

[60 FR 64336, Dec. 15, 1995, as amended at 76 FR 72069, Nov. 21, 2011]

§ 63.784 Compliance dates.

(a) Each owner or operator of an existing affected source shall comply within two years after the effective date of this subpart.

(b) Each owner or operator of an existing unaffected area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply within 1 year after the date of becoming a major source.

(c) Each owner or operator of a new or reconstructed source shall comply with this subpart according to the schedule in § 63.6(b).

[60 FR 64336, Dec. 15, 1995, as amended at 61 FR 30816, June 18, 1996]

§ 63.785 Compliance procedures.

(a) For each batch of coating that is received by an affected source, the owner or operator shall (see Figure 1 of this section for a flow diagram of the compliance procedures):

(1) Determine the coating category and the applicable VOHAP limit as specified in § 63.783(a).

(2) Certify the as-supplied VOC content of the batch of coating. The owner or operator may use a certification supplied by the manufacturer for the batch, although the owner or operator retains liability should subsequent testing reveal a violation. If the owner or operator performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

(b)(1) In lieu of testing each batch of coating, as applied, the owner or operator may determine compliance with the VOHAP limits using any combination of the procedures described in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this section. The procedure used for each coating shall be determined and documented prior to application.

(2) The results of any compliance demonstration conducted by the affected source or any regulatory agency using Method 24 shall take precedence over the results using the procedures in paragraphs (c)(1), (c)(2), or (c)(3) of this section.

(3) The results of any compliance demonstration conducted by the affected source or any regulatory agency using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in paragraph (c)(4) of this section.

(c)(1) *Coatings to which thinning solvent will not be added.* For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the owner or operator of an affected source shall comply as follows:

(i) Certify the as-applied VOC content of each batch of coating.

(ii) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan required in § 63.787(b).

(iii) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in § 63.783(a) (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24 of appendix A to 40 CFR part 60.

(2) *Coatings to which thinning solvent will be added—coating-by-coating compliance.* For a coating to which thinning solvent is routinely or sometimes added, the owner or operator shall comply as follows:

(i) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch as follows:

$$R = \frac{(V_s)(\text{VOHAP limit}) - m_{VOC}}{D_{th}} \quad \text{Eqn. 1}$$

where:

R = Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);

V_s = Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);

VOHAP limit = Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);

m_{VOC} = VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];

D_{th} = Density of the thinner (g/L).

If V_s is not supplied directly by the coating manufacturer, the owner or operator shall determine V_s as follows:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \quad \text{Eqn. 2}$$

where:

$m_{volatiles}$ = Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and

D_{avg} = Average density of volatiles in the batch (g/L).

The procedures specified in § 63.786(d) may be used to determine the values of variables defined in this paragraph. In addition, the owner or operator may choose to construct nomographs, based on Equation 1 of this subpart, similar or identical to the one provided in appendix B of this subpart as a means of easily estimating the maximum allowable thinning ratio.

(ii) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan required in § 63.787(b).

(iii) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

(iv) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^{n} \left(R \times V_b\right)_i + \sum_{i=1}^{n} \left(R_{cold} \times V_{b-cold}\right)_i \qquad \text{Eqn. 3}$$

where:

V_{th} = Total allowable volume of thinner for the previous month (L thinner);

V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);

R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);

$V_{b\text{-}cold}$ = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);

i = Each batch of coating; and

n = Total number of batches of the coating.

(v) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

(vi) If the volume of thinner actually used with the coating [paragraph (c)(3)(v) of this section] is less than or equal to the total allowable volume of thinner for the coating [paragraph (c)(3)(iv) of this section], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24 of appendix A to 40 CFR part 60.

(3) *Coatings to which the same thinning solvent will be added—group compliance.* For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the owner or operator shall comply as follows:

(i) Designate a single thinner to be added to each coating during the month and ''group'' coatings according to their designated thinner.

(ii) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating in the group using the equations in paragraph (c)(2) of this section.

(iii) Prior to the first application of each ''batch,'' notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan required in § 63.787(b).

(iv) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

(v) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3 of this subpart.

(vi) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

(vii) If the volume of thinner actually used with the group [paragraph

(c)(3)(vi) of this section] is less than or equal to the total allowable volume of thinner for the group [paragraph (c)(3)(v) of this section], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24 of appendix A to 40 CFR part 60.

(4) *Demonstration of compliance through an alternative (i.e., other than Method 24 of appendix A to 40 CFR part 60) test method.* The owner or operator shall comply as follows:

(i) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

(ii) If no thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in §63.785(c)(1), except that VOHAP content shall be used in lieu of VOC content.

(iii) If thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in §63.785(c)(2) or (3), except that in Equation 1 of this subpart: the term ''m_{VOC}'' shall be replaced by the term ''m_{VOHAP},'' defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term ''D_{th}'' shall be replaced by the term ''$D_{th(VOHAP)}$'' defined as the average density of the VOHAP thinner(s) (g/L).

(d) A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in paragraphs (c)(1) through (c)(4) of this section shall result in a 30-day violation for enforcement purposes, unless the owner or operator provides sufficient data to demonstrate the specific days during which noncompliant coatings were applied.

(e) Continuous compliance requirements. You must demonstrate continuous compliance with the emissions standards and operating limits by using the performance test methods and procedures in §63.786 for each affected source.

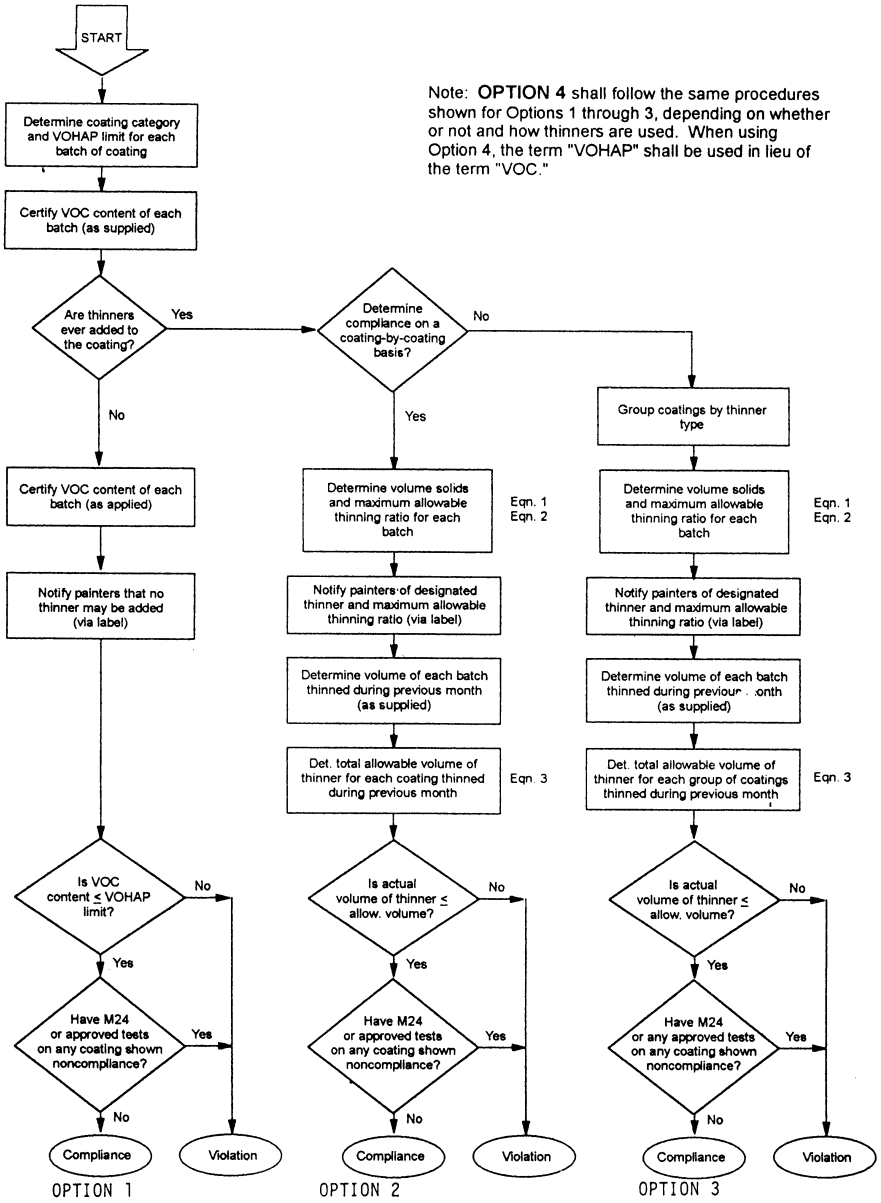
(1) *General requirements.* (i) You must monitor and collect data, and provide a site specific monitoring plan, as required by §§63.783, 63.785, 63.786 and 63.787.

(ii) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), you must operate the monitoring system and collect data at all required intervals at all times the affected source is operating, and periods of malfunction. Any period for which data collection is required and the operation of the Continuous Emissions Monitoring System (CEMS) is not otherwise exempt and for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(iii) You may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(2) [Reserved]

Figure 1 to §63.785 Flow diagram of compliance procedures



[60 FR 64336, Dec. 15, 1995, as amended at 76 FR 72069, Nov. 21, 2011]

§ 63.786 Test methods and procedures.

(a) For the compliance procedures described in §63.785(c) (1) through (c)(3),

Method 24 of 40 CFR part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the owner or operator shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

(b) For the compliance procedure described in §63.785(c)(4), the Administrator must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180–93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference—see §63.14).

(1) *Sensitivity*. The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257–93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference—see §63.14). In determining the sensitivity, the level of sample dilution must be factored in.

(2) *Repeatability*. First, at the 0.1–5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day to day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day to day variation of duplicates by the same analyst exceeds 5 percent relative.

(3) *Reproducibility*. First, at the 0.1–5 percent analyte range the results would be suspect if lab to lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab to lab variation exceeds 20 percent relative.

(4) Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.

(5) Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be needed such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260–91 or 96: Standard Practice for Gas Chromatography [incorporation by reference—see §63.14].)

(c) A coating manufacturer or the owner or operator of an affected source may use batch formulation data as a test method in lieu of Method 24 of appendix A to 40 CFR part 60 to certify the as-supplied VOC content of a coating if the manufacturer or the owner or operator has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 of appendix A of 40 CFR part 60 shall take precedence.

(d) Each owner or operator of an affected source shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A of this subpart to determine values for the thinner and coating parameters used in Equations 1 and 2 of this subpart. The owner or operator shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

(e) For add-on control systems approved for use in limiting emissions from coating operations pursuant to §63.783(c), 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. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to demonstrate the conditions present during performance tests.

[60 FR 64336, Dec. 15, 1995, as amended at 65 FR 62215, Oct. 17, 2000; 76 FR 72069, Nov. 21, 2011]

§ 63.787 Notification requirements.

(a) Each owner or operator of an affected source shall comply with all applicable notification requirements in §63.9(a) through (d) and (i) through (j), with the exception that the deadline specified in §63.9(b) (2) and (3) shall be extended from 120 days to 180 days. Any owner or operator that receives approval pursuant to §63.783(c) to use an add-on control system to control coating emissions shall comply with the applicable requirements of §63.9(e) through (h).

(b) *Implementation plan.* The provisions of §63.9(a) apply to the requirements of this paragraph.

(1) Each owner or operator of an affected source shall:

(i) Prepare a written implementation plan that addresses each of the subject areas specified in paragraph (b)(3) of this section; and

(ii) Not later than one year after the effective date of this subpart, submit the implementation plan to the Administrator along with the notification required by §63.9(b)(2) or (b)(5) of subpart A, as applicable.

(2) [Reserved]

(3) *Implementation plan contents.* Each implementation plan shall address the following subject areas:

(i) *Coating compliance procedures.* The implementation plan shall include the compliance procedure(s) under §63.785(c) that the source intends to use.

(ii) *Recordkeeping procedures.* The implementation plan shall include the procedures for maintaining the records required under §63.788, including the procedures for gathering the necessary data and making the necessary calculations.

(iii) *Transfer, handling, and storage procedures.* The implementation plan shall include the procedures for ensuring compliance with §63.783(b).

(4) *Major sources that intend to become area sources by the compliance date.* Existing major sources that intend to become area sources by the December 16, 1997 compliance date may choose to submit, in lieu of the implementation plan required under paragraph (b)(1) of this section, a statement that, by the compliance date, the major source intends to obtain and comply with federally enforceable limits on their potential to emit which make the facility an area source.

[60 FR 64336, Dec. 15, 1995, as amended at 61 FR 30816, June 18, 1996]

§ 63.788 Recordkeeping and reporting requirements.

(a) Each owner or operator of an affected source shall comply with the applicable recordkeeping and reporting requirements in §63.10 (a), (b), (d), and (f). Any owner that receives approval pursuant to §63.783(c) to use an add-on control system to control coating emissions shall also comply with the applicable requirements of §63.10 (c) and (e). A summary of recordkeeping and reporting requirements is provided in Table 3 of this subpart.

(b) *Recordkeeping requirements.* (1) Each owner or operator of a major source shipbuilding or ship repair facility having surface coating operations with less than 1000 liters (L) (264 gallons (gal)) annual marine coating usage shall record the total volume of coating applied at the source to ships. Such records shall be compiled monthly and maintained for a minimum of 5 years.

(2) Each owner or operator of an affected source shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:

(i) All documentation supporting initial notification;

(ii) A copy of the affected source's approved implementation plan;

(iii) The volume of each low-usage-exempt coating applied;

(iv) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;

(v) Certification of the as-supplied VOC content of each batch of coating;

(vi) A determination of whether containers meet the standards as described in § 63.783(b)(2); and

(vii) The results of any Method 24 of appendix A to 40 CFR part 60 or approved VOHAP measurement test conducted on individual containers of coating, as applied.

(3) The records required by paragraph (b)(2) of this section shall include additional information, as determined by the compliance procedure(s) described in § 63.785(c) that each affected source followed:

(i) *Coatings to which thinning solvent will not be added.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(1) shall contain the following information:

(A) Certification of the as-applied VOC content of each batch of coating; and

(B) The volume of each coating applied.

(ii) *Coatings to which thinning solvent will be added—coating-by-coating compliance.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(2) shall contain the following information:

(A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (nonvolatiles) in each batch, including any calculations;

(B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating, including calculations;

(C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5 °C (40 °F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;

(D) The volume used of each batch of the coating, as supplied;

(E) The total allowable volume of thinner for each coating, including calculations; and

(F) The actual volume of thinner used for each coating.

(iii) *Coatings to which the same thinning solvent will be added—group compliance.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(3) shall contain the following information:

(A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

(B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating, including calculations;

(C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5 °C (40 °F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

(D) Identification of each group of coatings and their designated thinners;

(E) The volume used of each batch of coating in the group, as supplied;

(F) The total allowable volume of thinner for the group, including calculations; and

(G) The actual volume of thinner used for the group.

(iv) *Demonstration of compliance through an alternative (i.e., non-Method 24 in appendix A to 40 CFR part 60) test method.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(4) shall contain the following information:

(A) Identification of the Administrator-approved VOHAP test method or certification procedure;

(B) For coatings to which the affected source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;

(C) For coatings to which the affected source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(ii) of this section; and

(D) For coatings to which the affected source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(iii) of this section.

(4) If the owner or operator of an affected source detects a violation of the standards specified in §63.783, the owner or operator shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:

(i) A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.

(ii) Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.

(iii) Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.

(iv) If, pursuant to paragraph (b)(4)(iii) of this section, the owner or operator identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

(A) The magnitude of each deviation;

(B) The reason for each deviation;

(C) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and

(D) All quality assurance activities performed on any element of the monitoring protocol.

(5) Each owner or operator that receives approval pursuant to §63.783(c) to use an add-on control system to control coating emissions shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the required air pollution control and monitoring equipment. Each owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.783(b)(1), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(c) *Reporting requirements.* Before the 60th day following completion of each 6 month period after the compliance date specified in §63.784, each owner or operator of an affected source shall submit a report to the Administrator for each of the previous 6 months. The report shall include all of the information that must be retained pursuant to paragraphs (b)(2) through (3) of this section, except for that information specified in paragraphs (b)(2)(i) through (ii), (b)(2)(v), (b)(3)(i)(A), (b)(3)(ii)(A), and (b)(3)(iii)(A). If a violation at an affected source is detected, the owner or operator of the affected source shall also report the information specified in paragraph (b)(4) of this section for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the affected source. If there was a malfunction during the reporting period, the report must also include the number, duration and a brief description of each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of

actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.783(b)(1), including actions taken to correct a malfunction.

[60 FR 64336, Dec. 15, 1995, as amended at 61 FR 66227, Dec. 17, 1996; 76 FR 72069, Nov. 21, 2011]

§63.789 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§63.780 through 63.781, and 63.783 through 63.784.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37353, June 23, 2003]

TABLE 1 TO SUBPART II OF PART 63—GENERAL PROVISIONS OF APPLICABILITY TO SUBPART II

Reference	Applies to subpart II	Comment
63.1(a)(1)–(3)	Yes.	
63.1(a)(4)	Yes	Subpart II clarifies the applicability of each paragraph in subpart A to sources subject to subpart II.
63.1(a)(5)–(7)	Yes.	
63.1(a)(8)	No	Discusses State programs.
63.1(a)(9)–(14)	Yes.	
63.1(b)(1)	Yes	§63.781 specifies applicability in more detail.
63.1(b)(2)–(3)	Yes.	
63.1(c)–(e)	Yes.	
63.2	Yes	Additional terms are defined in §63.782; when overlap between subparts A and II occurs, subpart II takes precedence.
63.3	Yes	Other units used in subpart II are defined in that subpart.
63.4	Yes.	
63.5(a)–(c)	Yes.	
63.5(d)	Yes	Except information on control devices and control efficiencies should not be included in the application unless an add-on control system is or will be used to comply with subpart II in accordance with §63.783(c).
63.5(e)–(f)	Yes.	
63.6(a)–(b)	Yes.	
63.6(c)–(d)	Yes	Except §63.784(a) specifies the compliance date for existing affected sources.
63.6(e)(1)(i)	No	See §63.783(b)(1) for general duty requirement.
63.6(e)(1)(ii)	No..	
63.6(e)(1)(iii)	Yes..	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No..	
63.6(f)(1)	No..	
63.6(f)(2)–(f)(3)	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then this section does apply.
63.6(g)	No	§63.783(c) specifies procedures for application and approval of alternative means of limiting emissions.
63.6(h)	No	Subpart II does not contain any opacity or visible emission standards.
63.6(i)–(j)	Yes.	

Reference	Applies to subpart II	Comment
63.7(a)–(d)	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then these sections do apply.
63.7(e)(1)	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then see §63.786(e).
63.7(e)(2)–(e)(4)	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then these sections do apply.
63.8	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then this section does apply, with the exception of §63.8(c)(1)(i), §63.8(c)(1)(iii), and the last sentence of §63.8(d)(3).
63.9(a)–(d)	Yes	§63.787(a) extends the initial notification deadline to 180 days. §63.787(b) requires an implementation plan to be submitted with the initial notification.
63.9(e)	No	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then this paragraph does apply.
63.9(f)	No	Subpart II does not contain any opacity or visible emission standards
63.9(g)–(h)	No	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with §63.783(c) then these paragraphs do apply.
63.9(i)–(k)	Yes	§63.9(k) only as specified in §63.9(j).
63.10(a)	Yes.	
63.10(b)(1)	Yes.	
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No	See §63.788(b)(5) for recordkeeping of occurrence, duration, and actions taken during malfunctions.
63.10(b)(2)(iii)	Yes.	
63.10(b)(2)(iv)–(b)(2)(v).	No.	
63.10(b)(2)(vi)–(b)(2)(xiv).	Yes.	
63.10(b)(3)	Yes.	
63.10(c)(1)–(9)	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then these sections do apply.
63.10(c)(10)–(11).	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then see §63.788(b)(5) for records of malfunctions.
63.10(c)(12)–(14).	No	If an alternative means of limiting emissions (*e.g.*, an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then these sections do apply.
63.10(c)(15)	No.	
63.10(d)(1)–(4)	Yes.	
63.10(d)(5)	No	See §63.788(c) for reporting malfunctions.
63.10(e)	No	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then this paragraph does apply.
63.10(f)	Yes.	
63.11	No	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with §63.783(c), then this section does apply.
63.12–63.15	Yes.	

[60 FR 64336, Dec. 15, 1995, as amended at 76 FR 72070, Nov. 21, 2011; 85 FR 73895, Nov. 19, 2020]

TABLE 2 TO SUBPART II OF PART 63—VOLATILE ORGANIC HAP (VOHAP) LIMITS FOR MARINE COATINGS

Coating category	VOHAP limits[a, b, c]		
	Grams/liter coating (minus water and exempt compounds)	Grams/liter solids[d]	
		t ≥4.5 °C	t <4.5 °C[e]
General use	340	571	728
Specialty:			
Air flask	340	571	728
Antenna	530	1,439	
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	
Navigational aids	550	1,597	
Nonskid	340	571	728
Nuclear	420	841	1,069

Coating category	VOHAP limits [a, b, c]		
	Grams/liter coating (minus water and exempt compounds)	Grams/liter solids [d]	
		t ≥4.5 °C	t <4.5 °C [e]
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	
Repair and maint. of thermoplastics	550	1,597	
Rubber camouflage	340	571	728
Sealant for thermal spray aluminum	610	2,235	
Special marking	490	1,178	
Specialty interior	340	571	728
Tack coat	610	2,235	
Undersea weapons systems	340	571	728
Weld-through precon. primer	650	2,885	

[a] The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in §63.785(c)(1), but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described §63.785(c) (2) through (4).

[b] VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in §63.785(c) (1) through (3).

[c] To convert from g/L to lb/gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

[d] VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.

[e] These limits apply during cold-weather time periods, as defined in §63.782. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (nonvolatiles). Such coatings are subject to the same limits regardless of weather conditions.

[60 FR 64336, Dec. 15, 1995, as amended at 61 FR 66228, Dec. 17, 1996; 76 FR 72070, Nov. 21, 2011]

TABLE 3 TO SUBPART II OF PART 63—SUMMARY OF RECORDKEEPING AND REPORTING REQUIREMENTS [a, b, c]

Requirement	All Opts.		Option 1		Option 2		Option 3	
	Rec	Rep	Rec	Rep	Rec	Rep	Rec	Rep
Notification (§63.9(a)–(d))	X	X						
Implementation plan (§63.787(b)) [d]	X	X						
Volume of coating applied at unaffected major sources (§63.781(b))	X							
Volume of each low-usage-exempt coating applied at affected sources (§63.781(c))	X	X						
ID of the coatings used, their appropriate coating categories, and the applicable VOHAP limit	X	X						
Determination of whether containers meet the standards described in §63.783(b)(3)	X	X						
Results of M–24 or other approved tests	X	X						
Certification of the as-supplied VOC content of each batch	X							
Certification of the as-applied VOC content of each batch			X					
Volume of each coating applied			X	X				
Density of each thinner and volume fraction of solids in each batch					X	X		
Maximum allowable thinning ratio(s) for each batch					X	X	X	X
Volume used of each batch, as supplied					X	X	X	X
Total allowable volume of thinner					X	X	X	X
Actual volume of thinner used					X	X	X	X
Identification of each group of coatings and designated thinners							X	X

[a] Affected sources that comply with the cold-weather limits must record and report additional information, as specified in §63.788(b)(3) (ii)(C), (iii)(C), and (iv)(D).

[b] Affected sources that detect a violation must record and report additional information, as specified in §63.788(b)(4).

[c] OPTION 4: the recordkeeping and reporting requirements of Option 4 are identical to those of Options 1, 2, or 3, depending on whether and how thinners are used. However, when using Option 4, the term "VOHAP" shall be used in lieu of the term "VOC," and the owner or operator shall record and report the Administrator-approved VOHAP test method or certification procedure.

[d] Major sources that intend to become area sources by the compliance date may, in lieu of submitting an implementation plan, choose to submit a statement of intent as specified in §63.787(b)(4).

[60 FR 64336, Dec. 15, 1995, as amended at 76 FR 72071, Nov. 21, 2011]

APPENDIX A TO SUBPART II OF PART 63—VOC DATA SHEET[1]

Properties of the Coating ''As Supplied'' by the Manufacturer[2]

Coating Manufacturer: _____
Coating Identification: _____
Batch Identification: _____
Supplied To: _____

Properties of the coating as supplied[1] to the customer:

A. Coating Density: $(D_c)_s$ ____ g/L
[ ] ASTM D1475–90* [ ] Other[3]
B. Total Volatiles: $(m_v)_s$ ____ Mass Percent
[ ] ASTM D2369–93 or 95* [ ] Other[3]
C. Water Content: 1. $(m_w)_s$ ____ Mass Percent
[ ] ASTM D3792–91* [ ] ASTM D4017–81, 90, or 96a* [ ] Other[3]
2. $(v_w)_s$ ____ Volume Percent
[ ] Calculated [ ] Other[3]
D. Organic Volatiles: $(m_o)_s$ ____ Mass Percent
E. Nonvolatiles: $(v_n)_s$ ____ Volume Percent
[ ] Calculated [ ] Other[3]
F. VOC Content $(VOC)_s$:
1. ____ g/L solids (nonvolatiles)
2. ____ g/L coating (less water and exempt compounds)
G. Thinner Density: D_{th} ____ g/L
ASTM ____ [ ] Other[3]

Remarks: (use reverse side)

Signed: _____ Date: _____

[60 FR 64336, Dec. 15, 1995, as amended at 65 FR 62216, Oct. 17, 2000]

[1] Adapted from EPA–340/1–86–016 (July 1986), p. II–2.

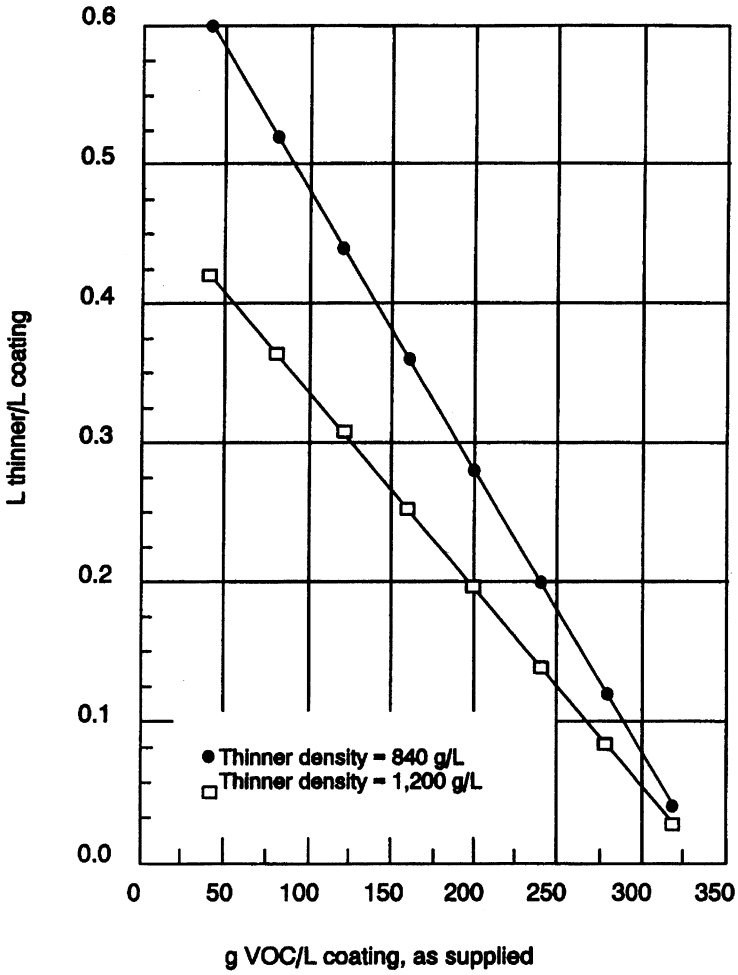
[2] The subscript ''s'' denotes each value is for the coating ''as supplied'' by the manufacturer.

*Incorporation by reference—see §63.14.

[3] Explain the other method used under ''Remarks.''

APPENDIX B TO SUBPART II OF PART 63—MAXIMUM ALLOWABLE THINNING RATES AS A FUNCTION OF AS SUPPLIED VOC CONTENT AND THINNER DENSITY

Appendix B To Subpart II of Part 63 -- Maximum Allowable Thinning Rates As A Function Of As Supplied VOC Content And Thinner Density[a,b]



[a] These graphs represent maximum allowable thinning ratios for general use coatings without water or exempt compounds.

[b] The average density of the volatiles in the coating was assumed = 840 g solvent/L solvent.

Subpart JJ—National Emission Standards for Wood Furniture Manufacturing Operations

SOURCE: 60 FR 62936, Dec. 7, 1995, unless otherwise noted.

§ 63.800 Applicability.

(a) The affected source to which this subpart applies is each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63, subpart A, § 63.2. The owner or operator of a source that meets the definition for an incidental wood furniture manufacturer shall maintain purchase or usage records demonstrating that the source meets the definition in § 63.801 of this subpart, but the source shall not be subject to any other provisions of this subpart.

(b) A source that complies with the limits and criteria specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section is an area source for the purposes of this subpart and is not subject to any other provision of this rule, provided that: In the case of paragraphs (b)(1) and (b)(2), finishing materials, adhesives, cleaning solvents and washoff solvents used for wood furniture or wood furniture component manufacturing operations account for at least 90 percent of annual HAP emissions at the plant site, and if the plant site has HAP emissions that do not originate from the listed materials, the owner or operator shall keep any records necessary to demonstrate that the 90 percent criterion is being met. A source that initially relies on the limits and criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) to become an area source, but subsequently exceeds the relevant limit (without first obtaining and complying with other limits that keep its potential to emit hazardous air pollutants below major source levels), becomes a major source and must comply thereafter with all applicable provisions of this subpart starting on the applicable compliance date in § 63.800. Nothing in this paragraph (b) is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(1) The owner or operator of the source uses no more than 250 gallons per month, for every month, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). The owner or operator shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month, and upon request submit such records to the Administrator. These records shall be maintained for five years.

(2) The owner or operator of the source uses no more than 3,000 gallons per rolling 12-month period, for every 12-month period, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). A rolling 12-month period includes the previous 12 months of operation. The owner or operator of the source shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month and the total gallons used each previous month, and upon request submit such records to the Administrator. Because records are needed over the previous set of 12 months, the owner or operator shall keep monthly records beginning no less than one year before the compliance date specified in § 63.800(e).

Records shall be maintained for five years.

(3) The source emits no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period and no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, and at least 90 percent of the plantwide emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components.

(c) This subpart does not apply to research or laboratory facilities as defined in § 63.801.

(d) This subpart does not apply to any surface coating or coating operation that meets any of the criteria of paragraphs (d)(1) through (4) of this section.

(1) Surface coating of metal parts and products other than metal components of wood furniture that meets the applicability criteria for miscellaneous metal parts and products surface coating (subpart MMMM of this part).

(2) Surface coating of plastic parts and products other than plastic components of wood furniture that meets the applicability criteria for plastic parts and products surface coating (subpart PPPP of this part).

(3) Surface coating of wood building products that meets the applicability criteria for wood building products surface coating (subpart QQQQ of this part). The surface coating of millwork and trim associated with cabinet manufacturing are subject to subpart JJ.

(4) Surface coating of metal furniture that meets the applicability criteria for metal furniture surface coating (subpart RRRR of this part). Surface coating of metal components of wood furniture performed at a wood furniture or wood furniture component manufacturing facility are subject to subpart JJ.

(e) Owners or operators of affected sources shall also comply with the requirements of subpart A of this part (General Provisions), according to the applicability of subpart A to such sources, as identified in Table 1 of this subpart.

(f) The compliance date for existing affected sources that emit less than 50 tons per year of HAP in 1996 is December 7, 1998. The compliance date for existing affected sources that emit 50 tons or more of hazardous air pollutants in 1996 is November 21, 1997. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart one year after becoming a major source.

(g) Existing affected sources shall be in compliance with § 63.802(a)(4) and § 63.803(h) no later than November 21, 2014. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) hazardous air pollutants (HAP) such that the source becomes a major source that is subject to this subpart shall comply with this subpart 1 year after becoming a major source.

(h) New affected sources must comply with the provisions of this standard immediately upon startup or by December 7, 1995, whichever is later. New area sources that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(i) Reconstructed affected sources are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment (e.g., incinerators, carbon adsorbers, etc.) are not considered in determining whether the facility has been reconstructed, unless the control equipment is required as part of the process (e.g., product recovery). Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. For example, an affected source may convert to waterborne coatings to meet the requirements of this subpart. At most facilities, this conversion will require the replacement of existing storage tanks, mix equipment, and transfer lines. The cost of replacing the equipment is not considered in determining whether the facility has been reconstructed.

(j) If the owner or operator, in accordance with 40 CFR 63.804, uses a control system as a means of limiting emissions, in response to an action to enforce the standards set forth in this

subpart, you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined in 40 CFR 63.2. Appropriate penalties may be assessed, however, if the respondent fails to meet its burden of proving all the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a limit, the owner or operator must timely meet the notification requirements in paragraph (j)(2) of this section, and must prove by a preponderance of evidence that:

(i) The excess emissions:

(A) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(2) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (h)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30259, June 3, 1997; 76 FR 72071, Nov. 21, 2011]

§ 63.801 Definitions.

(a) All terms used in this subpart that are not defined below have the

meaning given to them in the CAA and in subpart A (General Provisions) of this part.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives shall not be considered coatings or finishing materials. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative.

Aerosol adhesive means an adhesive that is dispensed from a pressurized container as a suspension of fine solid or liquid particles in gas.

Affected source means a wood furniture manufacturing facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63.2, excluding sources that meet the criteria established in §63.800(a), (b) and (c) of this subpart.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Alternative method means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

As applied means the HAP and solids content of the coating or contact adhesive that is actually used for coating or gluing the substrate. It includes the contribution of materials used for in-house dilution of the coating or contact adhesive.

Basecoat means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials, and is usually topcoated for protection.

Baseline conditions means the conditions that exist prior to an affected source implementing controls, such as a control system.

Building enclosure means a building housing a process that meets the requirements of a temporary total enclosure. The EPA Method 204E is used to identify all emission points from the building enclosure and to determine which emission points must be tested. For additional information see *Guidelines for Determining Capture Efficiency*, January 1994. Docket No. A–93–10, Item No. IV-B-1.

Capture device means a hood, enclosed room, floor sweep, or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution control device such as an incinerator or carbon adsorber.

Capture efficiency means the fraction of all organic vapors generated by a process that are directed to a control device.

Certified product data sheet (CPDS) means documentation furnished by coating or adhesive suppliers or an outside laboratory that provides:

(1) The VHAP content of a finishing material, contact adhesive, or solvent, by percent weight, measured using the EPA Method 311 (as promulgated in this subpart), or an equivalent or alternative method (or formulation data if the coating meets the criteria specified in §63.805(a));

(2) The solids content of a finishing material or contact adhesive by percent weight, determined using data from the EPA Method 24, or an alternative or equivalent method (or formulation data if the coating meets the criteria specified in §63.805 (a)); and

(3) The density, measured by EPA Method 24 or an alternative or equivalent method. Therefore, the reportable VHAP content shall represent the maximum aggregate emissions potential of the finishing material, adhesive, or solvent in concentrations greater than or equal to 1.0 percent by weight or 0.1 percent for VHAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part

1910), as formulated. Only VHAP present in concentrations greater than or equal to 1.0 percent by weight, or 0.1 percent for VHAP that are carcinogens, must be reported on the CPDS. The purpose of the CPDS is to assist the affected source in demonstrating compliance with the emission limitations presented in § 63.802.

NOTE: Because the optimum analytical conditions under EPA Method 311 vary by coating, the coating or adhesive supplier may also choose to include on the CPDS the optimum analytical conditions for analysis of the coating, adhesive, or solvent using EPA Method 311. Such information may include, but not be limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.)

Cleaning operations means operations in which organic HAP solvent is used to remove coating materials or adhesives from equipment used in wood furniture manufacturing operations.

Coating means a protective, decorative, or functional film applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, enamels, inks, and temporary protective coatings. Aerosol spray paints used for touch-up and repair are not considered coatings under this subpart.

Coating application station means the part of a coating operation where the coating is applied, e.g., a spray booth.

Coating operation means those activities in which a coating is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Coating solids (or solids) means the part of the coating which remains after the coating is dried or cured; solids content is determined using data from the EPA Method 24, or an equivalent or alternative method.

Compliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that meets the emission limits specified in Table 3 of this subpart.

Contact adhesive means an adhesive that is applied to two substrates, dried, and mated under only enough pressure to result in good contact. The bond is immediate and sufficiently strong to hold pieces together without further clamping, pressure, or airing.

Continuous coater means a finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor. Finishing materials that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating, and flow coating.

Continuous compliance means that the affected source is meeting the emission limitations and other requirements of the rule at all times and is fulfilling all monitoring and recordkeeping provisions of the rule in order to demonstrate compliance.

Control device means any equipment that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Includes, but is not limited to, incinerators, carbon adsorbers, and condensers.

Control device efficiency means the ratio of the pollutant released by a control device and the pollutant introduced to the control device.

Control system means the combination of capture and control devices used to reduce emissions to the atmosphere.

Conventional air spray means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece.

Data quality objective (DQO) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Day means a period of 24 consecutive hours beginning at midnight local

time, or beginning at a time consistent with a facility's operating schedule.

Disposed offsite means sending used organic HAP solvent or coatings outside of the facility boundaries for disposal.

Emission means the release or discharge, whether directly or indirectly, of HAP into the ambient air.

Enamel means a coat of colored material, usually opaque, that is applied as a protective topcoat over a basecoat, primer, or previously applied enamel coats. In some cases, another finishing material may be applied as a topcoat over the enamel.

Equipment leak means emissions of VHAP from pumps, valves, flanges, or other equipment used to transfer or apply coatings, adhesives, or organic HAP solvents.

Equivalent method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions.

Finishing material means a coating used in the wood furniture industry. Such materials include, but are not limited to, stains, basecoats, washcoats, enamels, sealers, and topcoats.

Finishing operation means those operations in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Foam adhesive means a contact adhesive used for gluing foam to fabric, foam to foam, and fabric to wood.

Gluing operation means those operations in which adhesives are used to join components, for example, to apply a laminate to a wood substrate or foam to fabric.

Incidental wood furniture manufacturer means a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in the manufacture of wood furniture or wood furniture components.

Incinerator means, for the purposes of this industry, an enclosed combustion device that thermally oxidizes volatile organic compounds to CO and CO_2. This term does not include devices that burn municipal or hazardous waste material.

Janitorial maintenance means the upkeep of equipment or building structures that is not directly related to the manufacturing process, for example, cleaning of restroom facilities.

Low-formaldehyde means, in the context of a coating or contact adhesive, a product concentration of less than or equal to 1.0 percent formaldehyde by weight, as described in a certified product data sheet for the material.

Lower confidence limit (LCL) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Material safety data sheet (MSDS) means the documentation required for hazardous chemicals by the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR part 1910) for a solvent, cleaning material, contact adhesive, coating, or other material that identifies select reportable hazardous ingredients of the material, safety and health considerations, and handling procedures.

Noncompliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that has a VHAP content (VOC content for the strippable booth coating) greater than the emission limitation presented in Table 3 of this subpart.

Nonporous substrate means a surface that is impermeable to liquids. Examples include metal, rigid plastic, flexible vinyl, and rubber.

Normally closed container means a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has

complied with an applicable emission limit.

Organic HAP solvent means a HAP that is a volatile organic liquid used for dissolving or dispersing constituents in a coating or contact adhesive, adjusting the viscosity of a coating or contact adhesive, or cleaning equipment. When used in a coating or contact adhesive, the organic HAP solvent evaporates during drying and does not become a part of the dried film.

Overall control efficiency means the efficiency of a control system, calculated as the product of the capture and control device efficiencies, expressed as a percentage.

Permanent total enclosure means a permanently installed enclosure that completely surrounds a source of emissions such that all emissions are captured and contained for discharge through a control device. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Recycled onsite means the reuse of an organic HAP solvent in a process other than cleaning or washoff.

Reference method means any method of sampling and analyzing for an air pollutant that is published in appendix A of 40 CFR part 60.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Responsible official has the meaning given to it in 40 CFR part 70, State Operating Permit Programs (Title V permits).

Sealer means a finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Special purpose finishing materials that are used in some finishing systems to optimize aesthetics are not sealers.

Solvent means a liquid used in a coating or contact adhesive to dissolve or disperse constituents and/or to adjust viscosity. It evaporates during drying and does not become a part of the dried film.

Stain means any color coat having a solids content by weight of no more than 8.0 percent that is applied in single or multiple coats directly to the substrate. It includes, but is not limited to, nongrain raising stains, equalizer stains, prestains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

Storage containers means vessels or tanks, including mix equipment, used to hold finishing, gluing, cleaning, or washoff materials.

Strippable spray booth material means a coating that:

(1) Is applied to a spray booth wall to provide a protective film to receive over spray during finishing operations;

(2) That is subsequently peeled off and disposed; and

(3) By achieving (1) and (2) of this definition reduces or eliminates the need to use organic HAP solvents to clean spray booth walls.

Substrate means the surface onto which a coating or contact adhesive is applied (or into which a coating or contact adhesive is impregnated).

Temporary total enclosure means an enclosure that meets the requirements of § 63.805(e)(1) (i) through (iv) and is not permanent, but constructed only to measure the capture efficiency of pollutants emitted from a given source. Additionally, any exhaust point from the enclosure shall be at least four equivalent duct or hood diameters from each natural draft opening. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Thinner means a volatile liquid that is used to dilute coatings or contact adhesives (to reduce viscosity, color strength, and solids, or to modify drying conditions).

Topcoat means the last film-building finishing material that is applied in a finishing system.

Touchup and repair means the application of finishing materials to cover minor finishing imperfections.

VHAP means any volatile hazardous air pollutant listed in Table 2 to Subpart JJ.

VHAP of potential concern means any VHAP from the list in table 6 of this subpart.

Volatile organic compound (VOC) means any organic compound which participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. A VOC may be measured by a reference method, an equivalent method, an alternative method, or by procedures specified under any rule. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, the owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, refer to 40 CFR part 51.10.

Washcoat means a transparent special purpose finishing material having a solids content by weight of 12.0 percent by weight or less. Washcoats are applied over initial stains to protect, to control color, and to stiffen the wood fibers in order to aid sanding.

Washoff operations means those operations in which organic HAP solvent is used to remove coating from wood furniture or a wood furniture component.

Wood furniture means any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured at any facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components, including, but not limited to, facilities under any of the following standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

Wood furniture component means any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops. However, foam seat cushions manufactured and fabricated at a facility that does not engage in any other wood furniture or wood furniture component manufacturing operation are excluded from this definition.

Wood furniture manufacturing operations means the finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

(b) The nomenclature used in this subpart has the following meaning:

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied. Also given in pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/lb solids).

(3) C_{aj} = the concentration of VHAP in gas stream (j) exiting the control device, in parts per million by volume.

(4) C_{bi} = the concentration of VHAP in gas stream (i) entering the control device, in parts per million by volume.

(5) C_{di} = the concentration of VHAP in gas stream (i) entering the control device from the affected source, in parts per million by volume.

(6) C_{fk} = the concentration of VHAP in uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(7) E = the emission limit achieved by an emission point or a set of emission points, in kg VHAP/kg solids (lb VHAP/lb solids).

(8) F = the control device efficiency, expressed as a fraction.

(9) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(10) G = the VHAP content of a contact adhesive, in kg VHAP/kg solids (lb VHAP/lb solids), as applied.

(11) M = the mass of solids in finishing material used monthly, kg solids/month (lb solids/month).

(12) N = the capture efficiency, expressed as a fraction.

(13) Q_{aj} = the volumetric flow rate of gas stream (j) exiting the control device, in dry standard cubic meters per hour.

(14) Q_{bi} = the volumetric flow rate of gas stream (i) entering the control device, in dry standard cubic meters per hour.

(15) Q_{di} = the volumetric flow rate of gas stream (i) entering the control device from the emission point, in dry standard cubic meters per hour.

(16) Q_{fk} = the volumetric flow rate of uncontrolled gas stream (k) emitted directly to the atmosphere from the emission point, in dry standard cubic meters per hour.

(17) $Q_{in\ \ i}$ = the volumetric flow rate of gas stream (i) entering the total enclosure through a forced makeup air duct, in standard cubic meters per hour (wet basis).

(18) $Q_{out\ \ j}$ = the volumetric flow rate of gas stream (j) exiting the total enclosure through an exhaust duct or hood, in standard cubic meters per hour (wet basis).

(19) R = the overall efficiency of the control system, expressed as a percentage.

(20) S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

(21) W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

(22) ac = after the control system is installed and operated.

(23) bc = before control.

(24) C_f = the formaldehyde content of a finishing material (c), in pounds of formaldehyde per gallon of coating (lb/gal).

(25) F_{total} = total formaldehyde emissions in each rolling 12 month period.

(26) G_f = the formaldehyde content of a contact adhesive (g), in pounds of formaldehyde per gallon of contact adhesive (lb/gal).

(27) V_c = the volume of formaldehyde-containing finishing material (c), in gal.

(28) V_g = the volume of formaldehyde-containing contact adhesive (g), in gal.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997; 62 FR 31363, June 9, 1997; 63 FR 71380, Dec. 28, 1998; 76 FR 72072, Nov. 21, 2011]

§ 63.802 Emission limits.

(a) Each owner or operator of an existing affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for existing sources presented in Table 3 of this subpart, using any of the compliance methods in § 63.804(a). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in § 63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:

(i) For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers Association's (BIFMA's) X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or

(ii) For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (a)(2)(i) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(4) Limit formaldehyde emissions by complying with the provisions specified in either paragraph (a)(4)(i) or (a)(4)(ii) of this section.

(i) Limit total formaldehyde (F_{total}) use in coatings and contact adhesives to no more than 400 pounds per rolling 12 month period.

(ii) Use coatings and contact adhesives only if they are low-formaldehyde

coatings and adhesives, in any wood furniture manufacturing operations.

(b) Each owner or operator of a new affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for new sources presented in Table 3 of this subpart using any of the compliance methods in § 63.804(d). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in § 63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied, using either of the compliance methods in § 63.804(e).

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(4) Limit formaldehyde emissions by complying with the provisions specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) Limit total formaldehyde (F_{total}) use in coatings and contact adhesives to no more than 400 pounds per rolling 12 month period.

(ii) Use coatings and contact adhesives only if they are low-formaldehyde coatings and adhesives, in any wood furniture manufacturing operations.

(c) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72072, Nov. 21, 2011]

§ 63.803 Work practice standards.

(a) *Work practice implementation plan.* (1) Each owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture operation manufacturing operation and addresses each of the work practice standards presented in paragraphs (b) through (l) of this section. The plan shall be developed no more than 60 days after the compliance date.

(2) The written work practice implementation plan shall be available for inspection by the Administrator (or delegated State, local, or Tribal authority) upon request. If the Administrator (or delegated State, local, or Tribal authority) determines that the work practice implementation plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator (or delegated State, local, or Tribal authority) may require the affected source to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.

(3) The inspection and maintenance plan required by paragraph (c) of this section and the formulation assessment plan for finishing operations required by paragraph (l) of this section are also reviewable by the Administrator (or delegated State, local, or Tribal authority).

(b) *Operator training course.* Each owner or operator of an affected source shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of this subpart. All new personnel, those hired after the compliance date of the standard, shall be trained upon hiring. All existing personnel, those hired before the compliance date of the standard, shall be trained within six months of the compliance date of the standard.

All personnel shall be given refresher training annually. The affected source shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

(1) A list of all current personnel by name and job description that are required to be trained;

(2) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;

(3) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and

(4) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

(c) *Inspection and maintenance plan.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:

(1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic HAP solvents;

(2) An inspection schedule;

(3) Methods for documenting the date and results of each inspection and any repairs that were made;

(4) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:

(i) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and

(ii) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

(d) *Cleaning and washoff solvent accounting system.* Each owner or operator of an affected source shall develop an organic HAP solvent accounting form to record:

(1) The quantity and type of organic HAP solvent used each month for washoff and cleaning, as defined in § 63.801 of this subpart;

(2) The number of pieces washed off, and the reason for the washoff; and

(3) The quantity of spent organic HAP solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.

(e) *Chemical composition of cleaning and washoff solvents.* Each owner or operator of an affected source shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 to this subpart, in concentrations subject to MSDS reporting as required by OSHA.

(f) *Spray booth cleaning.* Each owner or operator of an affected source shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, or plastic filters unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.

(g) *Storage requirements.* Each owner or operator of an affected source shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

(h) *Application equipment requirements.* Each owner or operator of an affected source shall not use conventional air spray guns except when all emissions from the finishing application station are routed to a functioning control device.

(i) *Line cleaning.* Each owner or operator of an affected source shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.

(j) *Gun cleaning.* Each owner or operator of an affected source shall collect all organic HAP solvent used to clean

spray guns into a normally closed container.

(k) *Washoff operations.* Each owner or operator of an affected source shall control emissions from washoff operations by:

(1) Using normally closed tanks for washoff; and

(2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

(l) *Formulation assessment plan for finishing operations.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:

(1) Identifies VHAP from the list presented in Table 5 of this subpart that are being used in finishing operations by the affected source;

(2) Establishes a baseline level of usage by the affected source, for each VHAP identified in paragraph (l)(1) of this section. The baseline usage level shall be the highest annual usage from 1994, 1995, or 1996, for each VHAP identified in paragraph (l)(1) of this section. For formaldehyde, the baseline level of usage shall be based on the amount of free formaldehyde present in the finishing material when it is applied. For styrene, the baseline level of usage shall be an estimate of unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16. Sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the equation in § 63.805 (d) or (e).

(3) Tracks the annual usage of each VHAP identified in (l)(1) by the affected source that is present in amounts subject to MSDS reporting as required by OSHA.

(4) If, after November 1998, the annual usage of the VHAP identified in paragraph (l)(1) exceeds its baseline level, then the owner or operator of the affected source shall provide a written notification to the permitting authority that describes the amount of the increase and explains the reasons for exceedance of the baseline level. The following explanations would relieve the owner or operator from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:

(i) The exceedance is no more than 15.0 percent above the baseline level;

(ii) Usage of the VHAP is below the de minimis level presented in Table 5 of this subpart for that VHAP (sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the procedures in § 63.805 (d) or (e);

(iii) The affected source is in compliance with its State's air toxic regulations or guidelines for the VHAP; or

(iv) The source of the pollutant is a finishing material with a VOC content of no more than 1.0 kg VOC/kg solids (1.0 lb VOC/lb solids), as applied.

(5) If none of the above explanations are the reason for the increase, the owner or operator shall confer with the permitting authority to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the permitting authority and owner or operator. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.

(6) If, after November 1998, an affected source uses a VHAP of potential concern listed in table 6 of this subpart for which a baseline level has not been previously established, then the baseline level shall be established as the *de minimis* level provided in that same table for that chemical. The affected source shall track the annual usage of each VHAP of potential concern identified in this paragraph that is present in amounts subject to MSDS reporting as

required by OSHA. If usage of the VHAP of potential concern exceeds the *de minimis* level listed in table 6 of this subpart for that chemical, then the affected source shall provide an explanation to the permitting authority that documents the reason for the exceedance of the *de minimis* level. If the explanation is not one of those listed in paragraphs (l)(4)(i) through (l)(4)(iv) of this section, the affected source shall follow the procedures in paragraph (l)(5) of this section.

[60 FR 62936, Dec. 7, 1995, as amended at 63 FR 71380, Dec. 28, 1998; 68 FR 37353, June 23, 2003; 76 FR 72073, Nov. 21, 2011]

§ 63.804 Compliance procedures and monitoring requirements.

(a) The owner or operator of an existing affected source subject to §63.802(a)(1) shall comply with those provisions using any of the methods presented in §63.804 (a)(1) through (a)(4).

(1) Calculate the average VHAP content for all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 1.0;

$$E = (M_{c1}\ C_{c1} + M_{c2}\ C_{c2} + * * * + M_{cn}\ C_{cn} + S_1\ W_1 + S_2\ W_2 + * * * S_n\ W_n)/(M_{c1} + M_{c2} + * * * + M_{cn}) \quad \text{Equation 1}$$

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each stain, sealer, and topcoat has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated at the affected source is formulated using a finishing material containing no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent VHAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

$$R=[(E_{bc}-E_{ac})/E_{bc}](100) \quad \text{Equation 2}$$

The value of E_{bc} in Equation 2 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in paragraph (a)(1) of this section, compliant finishing materials, as described in paragraph (a)(2) of this section, and a control system, as described in paragraph (a)(3) of this section.

(b) The owner or operator of an affected source subject to §63.802(a)(2)(i) shall comply with the provisions by using compliant foam adhesives with a VHAP content no greater than 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied.

(c) The owner or operator of an affected source subject to §63.802(a)(2)(ii) shall comply with those provisions by using either of the methods presented in §63.804 (c)(1) and (c)(2).

(1) Use compliant contact adhesives with a VHAP content no greater than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} is no greater than 1.0.

$$R=[(G_{bc}-G_{ac})/G_{bc}]\ (100) \quad \text{Equation 3}$$

(d) The owner or operator of a new affected source subject to §63.802(b)(1) may comply with those provisions by using any of the following methods:

(1) Calculate the average VHAP content across all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 0.8;

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each sealer and topcoat has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, each stain has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent HAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

$$R=[(E_{bc}-E_{ac})/E_{bc}](100) \quad \text{Equation 4}$$

The value of E_{bc} in Equation 4 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in (d)(1), compliant finishing materials, as described in (d)(2), and a control system, as described in (d)(3).

(e) The owner or operator of a new affected source subject to §63.802(b)(2) shall comply with the provisions using either of the following methods:

(1) Use compliant contact adhesives with a VHAP content no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(f) *Initial compliance.* (1) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(1) or (d)(1) shall submit the results of the averaging calculation (Equation 1) for the first month with the initial compliance status report required by §63.807(b). The first month's calculation shall include data for the entire month in which the compliance date falls. For example, if the source's compliance date is November 21, 1997, the averaging calculation shall include data from November 1, 1997 to November 30, 1997.

(2) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(2) or (d)(2) shall submit an initial compliance status report, as required by §63.807(b), stating that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, are being used by the affected source.

(3) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that are complying through the procedures established in §63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate initial compliance by:

(i) Submitting an initial compliance status report, as required by §63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, and compliant thinners are being used; or

(ii) Submitting an initial compliance status report, as required by §63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir, are being used; the viscosity of the coating in the reservoir is being monitored; and compliant thinners are being used. The affected source shall also submit data that demonstrate that viscosity is an appropriate parameter for demonstrating compliance.

(4) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(3) or (d)(3) shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under §63.7 using the procedures and test methods listed in §§63.7 and 63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in §63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst bed shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(D) For compliance with a carbon adsorber, the operating parameters shall be the total regeneration mass stream flow for each regeneration cycle and the carbon bed temperature after each regeneration, or the concentration level of organic compounds exiting the adsorber, unless the owner or operator requests and receives approval from the Administrator to establish other operating parameters.

(E) For compliance with a control device not listed in this section, one or more operating parameter values shall be established using the procedures identified in §63.804(g)(4)(vi).

(v) Owners or operators complying with §63.804(f)(4) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, during the three test runs required by §63.805(c)(1).

(5) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2) or (b)(2) that comply through the procedures established in §63.804 (b), (c)(1), or (e)(1), shall submit an initial compliance status report, as required by §63.807(b), stating that compliant contact adhesives are being used by the affected source.

(6) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in §63.804 (c)(2) or (e)(2), shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under §63.7 using the procedures and test methods listed in §§63.7 and 63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in §63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(v) Owners or operators complying with §63.804(f)(6) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating values as appropriate, that demonstrate compliance with the standards, during the three test runs required by §63.805(c)(1).

(7) Owners or operators of an affected source subject to the provisions of §63.802 (a)(3) or (b)(3) shall submit an initial compliance status report, as required by §63.807(b), stating that compliant strippable spray booth coatings are being used by the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in §63.803 shall submit an initial compliance status report, as required by §63.807(b), stating that the work practice implementation plan has

been developed and procedures have been established for implementing the provisions of the plan.

(g) *Continuous compliance demonstrations.* (1) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(1) or (d)(1) shall demonstrate continuous compliance by submitting the results of the averaging calculation (Equation 1) for each month within that semiannual period and submitting a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that the value of (E), as calculated by Equation 1, is no greater than 1.0 for existing sources or 0.8 for new sources. An affected source is in violation of the standard if E is greater than 1.0 for existing sources or 0.8 for new sources for any month. A violation of the monthly average is a separate violation of the standard for each day of operation during the month, unless the affected source can demonstrate through records that the violation of the monthly average can be attributed to a particular day or days during the period.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(2) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(2) or (d)(2) shall demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as demonstrated by records or by a sample of the coating, is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(3) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that are complying through the procedures established in § 63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate continuous compliance by following the procedures in paragraph (g)(3) (i) or (ii) of this section.

(i) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, using compliant thinners, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(A) The compliance certification shall state that compliant coatings have been used each day in the semiannual reporting period, or should otherwise identify the days of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as determined by records or by a sample of the coating, is used. Use of a noncompliant coating is a separate violation for each day the noncompliant coating is used.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(ii) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir, using compliant thinners, maintaining a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added, maintaining records of solvent additions, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(A) The compliance certification shall state that compliant coatings, as determined by the VHAP content of

the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(C) An affected source is in violation of the standard when a sample of the as-applied coating exceeds the applicable limit established in §63.804 (a)(2) or (d)(2), as determined using EPA Method 311, or the viscosity of the coating in the reservoir is less than the viscosity of the initial coating.

(4) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(3) or (d)(3) shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by §63.807(d) and §63.10(e) of subpart A.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with §63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to determine the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ±10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ±1 percent of the temperature being monitored or ±0.5 °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with §63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator who uses a control device not listed in §63.804(f)(4) shall submit, for the Administrator's approval, a description of the device, test data verifying performance, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard.

(5) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2) (i) or (ii) or (b)(2) that comply through the procedures established in § 63.804 (b), (c)(1), or (e)(1), shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used. Each day a noncompliant contact or foam adhesive is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(6) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in § 63.804 (c)(2) or (e)(2), shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to the manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.807(d) and § 63.10(e) of subpart A of this part.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with § 63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to measure the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ±10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ±1 percent of the temperature being monitored or ±0.5 °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with § 63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator using a control device not listed in this section shall submit to the Administrator a description of the device, test data verifying the performance of the device, and appropriate operating parameter values that will be monitored to demonstrate continuous compliance with the standard. Compliance using

this device is subject to the Administrator's approval.

(7) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(3) or (b)(3) shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used. Each day a noncompliant strippable booth coating is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in § 63.803 shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that an owner or operator is required to implement the provisions of the plan, each failure to implement an obligation under the plan during any particular day is a violation.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(9) *Continuous compliance requirements.* You must demonstrate continuous compliance with the emissions standards and operating limits by using the performance test methods and procedures in § 63.805 for each affected source.

(i) *General requirements.* (A) You must monitor and collect data, and provide a site specific monitoring plan as required by §§ 63.804, 63.806 and 63.807.

(B) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), you must operate the monitoring system and collect data at all required intervals at all times the affected source is operating and periods of malfunction. Any period for which data collection is required and the operation of the CEMS is not otherwise exempt and for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(C) You may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(ii) [Reserved]

(h) The owner or operator of an existing or new affected source subject to § 63.802(a)(4) or (b)(4) shall comply with those provisions by using either of the methods presented in § 63.804(h)(1) and (2) if complying with § 63.802(a)(4)(i) or (b)(4)(i) or by using the method presented in § 63.804(h)(3) if complying with § 63.802(a)(4)(ii) or (b)(4)(ii).

(1) Calculate total formaldehyde emissions from all finishing materials and contact adhesives used at the facility using Equation 5 and maintain a value of F_{total} no more than 400 pounds per rolling 12 month period.

$$F_{total} = (C_{f1}V_{c1} + C_{f2}V_{c2} + * * * * + C_{fn}V_{cn} + G_{f1}V_{g1} + G_{f2}V_{g2} + * * * * + G_{fn}V_{gn})$$ Equation 5

(2) Use a control system with an overall control efficiency (R) such that the calculated value of F_{total} in Equation 6 is no more than 400 pounds per rolling 12 month period.

$$F_{total} = (C_{f1}V_{c1} + C_{f2}V_{c2} + * * * * + C_{fn}V_{cn} + G_{f1}V_{g1} + G_{f2}V_{g2} + * * * * + G_{fn}V_{gn}) * (1-R)$$ Equation 6

(3) Demonstrate compliance by use of coatings and contact adhesives only if they are low-formaldehyde coatings and contact adhesives maintaining a certified product data sheet for each coating and contact adhesive used, as required by §63.806(b)(1), and submitting a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that low-formaldehyde coatings and contact adhesives, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a coating or contact adhesive that is not low-formaldehyde, as demonstrated by records or by a sample of the coating or contact adhesive, is used. Use of a noncompliant coating or contact adhesive is a separate violation for each day the noncompliant coating or contact adhesive is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72073, Nov. 21, 2011]

§ 63.805 Performance test methods.

(a)(1) The EPA Method 311 of appendix A of part 63 shall be used in conjunction with formulation data to determine the VHAP content of the liquid coating. Formulation data shall be used to identify VHAP present in the coating. The EPA Method 311 shall then be used to quantify those VHAP identified through formulation data. The EPA Method 311 shall not be used to quantify HAP such as styrene and formaldehyde that are emitted during the cure. The EPA Method 24 (40 CFR part 60, appendix A) shall be used to determine the solids content by weight and the density of coatings. If it is demonstrated to the satisfaction of the Administrator that a coating does not release VOC or HAP byproducts during the cure, for example, all VOC and HAP present in the coating is solvent, then batch formulation information shall be accepted. The owner or operator of an affected source may request approval from the Administrator to use an alternative method for determining the VHAP content of the coating. In the event of any inconsistency between the EPA Method 24 or Method 311 test data and a facility's formulation data, that is, if the EPA Method 24/311 value is higher, the EPA Method 24/311 test shall govern unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct. Sampling procedures shall follow the guidelines presented in ''Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A,'' EPA–340/1–91–010. (Docket No. A–93–10, Item No. IV-A-1).

(2) 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. 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.

(b) Owners or operators demonstrating compliance in accordance with § 63.804 (f)(4) or (f)(6) and § 63.804 (g)(4) or (g)(6), or complying with any of the other emission limits of § 63.802 by operating a capture or control device shall determine the overall control efficiency of the control system (R) as the product of the capture and control device efficiency, using the test methods cited in § 63.805(c) and the procedures in § 63.805 (d) or (e).

(c) When an initial compliance demonstration is required by § 63.804 (f)(4) or (f)(6) of this subpart, the procedures in paragraphs (c)(1) through (c)(6) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) The EPA Method 18 (40 CFR part 60, appendix A) shall be used to determine the HAP concentration of gaseous air streams. The test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(2) The EPA Method 1 or 1A (40 CFR part 60, appendix A) shall be used for sample and velocity traverses.

(3) The EPA Method 2, 2A, 2C, or 2D (40 CFR part 60, appendix A) shall be used to measure velocity and volumetric flow rates.

(4) The EPA Method 3 (40 CFR part 60, appendix A) shall be used to analyze the exhaust gases.

(5) The EPA Method 4 (40 CFR part 60, appendix A) shall be used to measure the moisture in the stack gas.

(6) The EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(d) Each owner or operator of an affected source demonstrating compliance in accordance with § 63.804 (f)(4) or (f)(6) shall perform a gaseous emission test using the following procedures:

(1) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP emissions can be accurately determined by the applicable test methods specified in § 63.805(c) (1) through (6);

(2) Determine capture efficiency from the affected emission point(s) by capturing, venting, and measuring all HAP emissions from the affected emission point(s). During a performance test, the owner or operator shall isolate affected emission point(s) located in an area with other nonaffected gaseous emission sources from all other gaseous emission point(s) by any of the following methods:

(i) Build a temporary total enclosure (see § 63.801) around the affected emission point(s); or

(ii) Use the building that houses the process as the enclosure (see § 63.801);

(iii) Use any alternative protocol and test method provided they meet either the requirements of the data quality objective (DQO) approach or the lower confidence level (LCL) approach (see § 63.801);

(iv) Shut down all nonaffected HAP emission point(s) and continue to exhaust fugitive emissions from the affected emission point(s) through any building ventilation system and other room exhausts such as drying ovens. All exhaust air must be vented through stacks suitable for testing; or

(v) Use another methodology approved by the Administrator provided it complies with the EPA criteria for acceptance under part 63, appendix A, Method 301.

(3) Operate the control device with all affected emission points that will subsequently be delivered to the control device connected and operating at maximum production rate;

(4) Determine the efficiency (F) of the control device using the following equation:

$$F = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} - \sum_{j=1}^{p} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi}} \quad \text{(Equation 5)}$$

(5) Determine the efficiency (N) of the capture system using the following equation:

$$N = \frac{\sum_{i=1}^{n} Q_{di} C_{di}}{\sum_{i=1}^{n} Q_{di} C_{di} + \sum_{k=1}^{p} Q_{fk} C_{fk}} \quad \text{(Equation 6)}$$

(6) For each affected source complying with §63.802(a)(1) in accordance with §63.804(a)(3), compliance is demonstrated if the product of (F × N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(7) For each new affected source complying with §63.802(b)(1) in accordance with §63.804(d)(3), compliance is demonstrated if the product of (F × N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(8) For each affected source complying with §63.802(a)(2)(ii) in accordance with §63.804(c)(2), compliance is demonstrated if the product of (F × N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(9) For each new affected source complying with §63.802(b)(2) in accordance with §63.804(e)(2), compliance is demonstrated if the product of (F × N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(e) An alternative method to the compliance method in §63.805(d) is the installation of a permanent total enclosure around the affected emission point(s). A permanent total enclosure presents prima facia evidence that all HAP emissions from the affected emission point(s) are directed to the control device. Each affected source that complies using a permanent total enclosure shall:

(1) Demonstrate that the total enclosure meets the requirements in paragraphs (e)(1) (i) through (iv). The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(i) The total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(ii) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(iii) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(A) All forced makeup air ducts and all exhaust ducts are constructed so

that the volumetric flow rate in each can be accurately determined by the test methods specified in § 63.805 (c)(2) and (3). Volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(B) Determine FV by the following equation:

$$FV = \frac{\sum_{j=1}^{n} Q_{out\,j} - \sum_{i=1}^{p} Q_{in\,i}}{\sum_{k=1}^{q} A_k} \qquad \text{(Equation 7)}$$

(iv) All access doors and windows whose areas are not included as natural draft openings and are not included in the calculation of FV shall be closed during routine operation of the process.

(2) Determine the control device efficiency using Equation (5), and the test methods and procedures specified in § 63.805 (c)(1) through (6).

(3) For each affected source complying with § 63.802(a)(1) in accordance with § 63.804(a)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F × N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(4) For each new affected source complying with § 63.802(b)(1) in accordance with § 63.804(d)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F × N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(5) For each affected source complying with § 63.802(a)(2)(ii) in accordance with § 63.804(c)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F × N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(6) For each new affected source complying with § 63.802(b)(2) in accordance with § 63.804(e)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F × N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72073, Nov. 21, 2011]

§ 63.806 Recordkeeping requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all recordkeeping requirements of § 63.10 of subpart A, according to the applicability criteria in § 63.800(d) of this subpart.

(b) The owner or operator of an affected source subject to the emission limits in § 63.802 of this subpart shall maintain records of the following:

(1) A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in § 63.802; and

(2) The VHAP content, in kg VHAP/kg solids (lb VHAP/lb solids), as applied, of each finishing material and contact adhesive subject to the emission limits in § 63.802; and

(3) The VOC content, in kg VOC/kg solids (lb VOC/lb solids), as applied, of each strippable booth coating subject to the emission limits in § 63.802 (a)(3) or (b)(3).

(4) The formaldehyde content, in lb/gal, as applied, of each finishing material and contact adhesive subject to the

emission limits in §63.802(a)(4) or (b)(4) and chooses to comply with the 400 lb/yr limits on formaldehyde in §63.802(a)(4) (i) or (b)(4)(i).

(c) The owner or operator of an affected source following the compliance method in §63.804 (a)(1) or (d)(1) shall maintain copies of the averaging calculation for each month following the compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1.

(d) The owner or operator of an affected source following the compliance procedures of §63.804 (f)(3)(ii) and (g)(3)(ii) shall maintain the records required by §63.806(b) as well as records of the following:

(1) Solvent and coating additions to the continuous coater reservoir;

(2) Viscosity measurements; and

(3) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.

(e) The owner or operator of an affected source subject to the work practice standards in §63.803 of this subpart shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:

(1) Records demonstrating that the operator training program required by §63.803(b) is in place;

(2) Records collected in accordance with the inspection and maintenance plan required by §63.803(c);

(3) Records associated with the cleaning solvent accounting system required by §63.803(d);

(4) [Reserved]

(5) Records associated with the formulation assessment plan required by §63.803(l); and

(6) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(f) The owner or operator of an affected source following the compliance method of §63.804 (f)(4) or (g)(4) shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the value of E_{ac} required by Equations 2 or 4, records of the operating parameter values, and copies of the semiannual compliance reports required by §63.807(d).

(g) The owner or operator of an affected source following the compliance method of §63.804 (f)(6) or (g)(6), shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the applicable value of G_{ac} calculated using Equation 3, records of the operating parameter values, and copies of the semiannual compliance reports required by §63.807(d).

(h) The owner or operator of an affected source subject to the emission limits in §63.802 and following the compliance provisions of §63.804(f) (1), (2), (3), (5), (7) and (8) and §63.804(g) (1), (2), (3), (5), (7), and (8) shall maintain records of the compliance certifications submitted in accordance with §63.807(c) for each semiannual period following the compliance date.

(i) The owner or operator of an affected source shall maintain records of all other information submitted with the compliance status report required by §63.9(h) and §63.807(b) and the semiannual reports required by §63.807(c).

(j) The owner or operator of an affected source shall maintain all records in accordance with the requirements of §63.10(b)(1).

(k) The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.802(c), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72074, Nov. 21, 2011]

§63.807 Reporting requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all reporting requirements of §63.7 through §63.10 of subpart A (General Provisions) according to the applicability criteria in §63.800(d) of this subpart.

(b) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(f) (1), (2), (3), (5), (7) and (8) shall submit the compliance status report required by § 63.9(h) of subpart A (General Provisions) no later than 60 days after the compliance date. The report shall include the information required by § 63.804(f) (1), (2), (3), (5), (7), and (8) of this subpart.

(c) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(g)(1), (2), (3), (5), (7), (8), (h)(1), and (h)(3) shall submit a report covering the previous 6 months of wood furniture manufacturing operations.

(1) The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.

(2) Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.

(3) The semiannual reports shall include the information required by § 63.804(g) (1), (2), (3), (5), (7), (8), (h)(1), and (h)(3), a statement of whether the affected source was in compliance or noncompliance, and, if the affected source was in noncompliance, the measures taken to bring the affected source into compliance. If there was a malfunction during the reporting period, the report shall also include the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.802(c), including actions taken to correct a malfunction.

(4) The frequency of the reports required by paragraph (c) of this section shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.

(d) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(g)(4), (6), and (h)(2) of this subpart shall submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.10(e) of subpart A. The report shall include the monitored operating parameter values required by § 63.804(g) (4) and (6). If the source experiences excess emissions, the report shall be submitted quarterly for at least 1 year after the excess emissions occur and until a request to reduce reporting frequency is approved, as indicated in § 63.10(e)(3)(C). If no excess emissions occur, the report shall be submitted semiannually.

(e) The owner or operator of an affected source required to provide a written notification under § 63.803(1)(4) shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72074, Nov. 21, 2011]

§ 63.808 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of alternatives to the requirements in §§ 63.800, 63.802, and

63.803(a)(1), (b), (c) introductory text, and (d) through (l).

(2) Approval of alternatives to the monitoring and compliance requirements in §§63.804(f)(4)(iv)(D) and (E), 63.804(g)(4)(iii)(C), 63.804(g)(4)(vi), and 63.804(g)(6)(vi).

(3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart, as well as approval of any alternatives to the specific test methods under §§63.805(a), 63.805(d)(2)(v), and 63.805(e)(1).

(4) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(5) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

§§63.809–63.819 [Reserved]

TABLE 1 TO SUBPART JJ OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART JJ

Reference	Applies to subpart JJ	Comment
63.1(a)	Yes	
63.1(b)(1)	No	Subpart JJ specifies applicability.
63.1(b)(2)	Yes	
63.1(b)(3)	Yes	
63.1(c)(1)	No	Subpart JJ specifies applicability.
63.1(c)(2)	No	Area sources are not subject to subpart JJ.
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	
63.1(c)(6)	Yes.	
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in 63.801(a) of subpart JJ. When overlap between subparts A and JJ occurs, subpart JJ takes precedence.
63.3	Yes	Other units used in subpart JJ are defined in 63.801(b).
63.4	Yes	
63.5	Yes	
63.6(a)	Yes	
63.6(b)(1)	Yes	
63.6(b)(2)	Yes	
63.6(b)(3)	Yes	
63.6(b)(4)	No	May apply when standards are proposed under Section 112(f) of the CAA.
63.6(b)(5)	Yes	
63.6(b)(7)	Yes	
63.6(c)(1)	Yes	
63.6(c)(2)	No	
63.6(c)(5)	Yes	
63.6(e)(1)(i)	No	See §63.802(c) for general duty requirement.
63.6(e)(1)(ii)	No.	
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No.	
63.6(f)(1)	No	Affected sources complying through the procedures specified in 63.804 (a)(1), (a)(2), (b), (c)(1), (d)(1), (d)(2), (e)(1), and (e)(2) are subject to the emission standards at all times, including periods of startup, shutdown, and malfunction.
63.6(f)(2)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No.	
63.6 (i)(1)–(i)(3)	Yes	
63.6(i)(4)(i)	Yes	
63.6(i)(4)(ii)	No.	
63.6 (i)(5)–(i)(14)	Yes	
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)–(d)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.7(e)(1)	No	See §63.805(a)(1).
63.7(e)(2)–(e)(4)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8(a)–(b)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8(c)(1)(i)	No.	
63.8(c)(1)(ii)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8(c)(1)(iii)	No.	
63.8(c)(2)–(d)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.

Reference	Applies to subpart JJ	Comment
63.8(d)(3)	Yes, except for last sentence.	Applies only to affected sources using a control device to comply with the rule.
63.8(e)–(g)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(a)	Yes	
63.9(b)	Yes	Existing sources are required to submit initial notification report within 270 days of the effective date or no later than 120 days after the source becomes subject to this subpart, whichever is later.
63.9(c)	Yes	
63.9(d)	Yes	
63.9(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(f)	No	
63.9(g)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(h)	Yes	63.9(h)(2)(ii) applies only to affected sources using a control device to comply with the rule.
63.9(i)	Yes	
63.9(j)	Yes	
63.9(k)	Yes	Only as specified in 63.9(j).
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No	See §63.806(k) for recordkeeping of occurrence and duration of malfunctions and recordkeeping of actions taken during malfunctions.
63.10(b)(2)(iii)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(b)(2)(iv)–(b)(2)(v)	No.	
63.10(b)(2)(vi)–(b)(2)(xiv)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(b)(3)	Yes	
63.10(c)(1)–(9)	Yes.	
63.10(c)(10)–(11)	No	See §63.806(k) for recordkeeping of malfunctions.
63.10(c)(12)–(14)	Yes.	
63.10(c)(15)	No.	
63.10(d)(1)	Yes	
63.10(d)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(d)(3)	No	
63.10(d)(4)	Yes	
63.10(d)(5)	No	See §63.807(c)(3) for reporting of malfunctions.
63.10(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(f)	Yes	
63.11	No	
63.12–63.15	Yes	

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72074, Nov. 21, 2011; 85 FR 73895, Nov. 19, 2020]

TABLE 2 TO SUBPART JJ OF PART 63—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS

Chemical name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis (2-ethylhexyl) phthalate (DEHP)	117817
Bis (chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998
Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4–D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3′-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756

Chemical name	CAS No.
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675
3,3′-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3′-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycolethers[a]	.....
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4′-Methylenebis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4′-Methylenediphenyl diisocyanate (MDI)	101688
4,4′-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter[b]	.....
1,3-Propane sultone	1120714
beta-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

[a] Includes mono- and di-ethers of ethylene glycol, diethylene glycols and triethylene glycol; R-(OCH_2CH_2) RR-OR where:
n = 1, 2, or 3,
R = alkyl or aryl groups
R′= R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH_2CH_2)$_n$—OH. Polymers are excluded from the glycol category.

[b] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[63 FR 71381, Dec. 28, 1998]

TABLE 3 TO SUBPART JJ OF PART 63—SUMMARY OF EMISSION LIMITS

Emission point	Existing source	New source
Finishing Operations:		
(a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied	[a] 1.0	[a] 0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied):		
—stains	[a] 1.0	[a] 1.0
—washcoats	[a,b] 1.0	[a, b] 0.8
—sealers	[a] 1.0	[a] 0.8
—topcoats	[a] 1.0	[a] 0.8

Emission point	Existing source	New source
—basecoats	[a,b] 1.0	[a, b] 0.8
—enamels	[a,b] 1.0	[a, b] 0.8
—thinners (maximum percent VHAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	[c] 1.0	[c] 0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning Operations:		
Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact Adhesives:		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	[d] NA	[d] NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2
(b) Use a control device	[e] 1.0	[e] 0.2
All Finishing Operations and Contact Adhesives:		
(a) Achieve total free formaldehyde emissions across all finishing operations and contact adhesives, lb per rolling 12 month period, as applied	400	400
(b) Use coatings and contact adhesives only if they are low-formaldehyde coatings and contact adhesives	[f] 1.0	[f] 1.0

[a] The limits refer to the VHAP content of the coating, as applied.
[b] Washcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent VHAP by weight.
[c] The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.
[d] There is no limit on the VHAP content of these adhesives.
[e] The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.
[f] The limits refer to the formaldehyde content by weight of the coating or contact adhesive, as specified on certified product data sheets.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997; 76 FR 72073, Nov. 21, 2011]

Table 4 to Subpart JJ of Part 63—Pollutants Excluded From Use in Cleaning and Washoff Solvents

Chemical name	CAS No.	Chemical name	CAS No.
4-Aminobiphenyl	92671	1,3-Butadiene	106990
Styrene oxide	96093	Nickel refinery dust	.....
Diethyl sulfate	64675	2-Acetylaminoflourine	53963
N-Nitrosomorpholine	59892	3,3′-Dichlorobenzidine	53963
Dimethyl formamide	68122	Lindane (hexachlorcyclohexane, gamma)	58899
Hexamethylphosphoramide	680319	2,4-Toluene diamine	95807
Acetamide	60355	Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
4,4′-Methylenedianiline	101779	1,2-Diphenylhydrazine	122667
o-Anisidine	90040	Toxaphene (chlorinated camphene)	8001352
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016	2,4-Dinitrotoluene	121142
Beryllium salts	.....	3,3′-Dimethoxybenzidine	119904
Benzidine	92875	Formaldehyde	50000
N-Nitroso-N-methylurea	684935	4,4′-Methylene bis (2-chloroaniline)	101144
Bis (chloromethyl) ether	542881	Acrylonitrile	107131
Dimethyl carbamoyl chloride	79447	Ethylene dibromide (1,2-Dibromoethane)	106934
Chromium compounds (hexavalent)	.....	DDE (1,1-p-chlorophenyl 1–2 dichloroethylene)	72559
1,2-Propylenimine (2-Methyl aziridine)	75558	Chlorobenzilate	510156
Arsenic and inorganic arsenic compounds	99999904	Dichlorvos	62737
Hydrazine	302012	Vinyl chloride	75014
1,1-Dimethyl hydrazine	57147	Coke Oven Emissions	.....
Beryllium compounds	7440417	Ethylene oxide	75218
1,2-Dibromo-3-chloropropane	96128	Ethylene thiourea	96457
N-Nitrosodimethylamine	62759	Vinyl bromide (bromoethene)	593602
Cadmium compounds	.....	Selenium sulfide (mono and di)	7488564
Benzo (a) pyrene	50328	Chloroform	67663
Polychlorinated biphenyls (Aroclors)	1336363	Pentachlorophenol	87865
Heptachlor	76448	Ethyl carbamate (Urethane)	51796
3,3′-Dimethyl benzidine	119937	Ethylene dichloride (1,2-Dichloroethane)	107062
Nickel subsulfide	12035722	Propylene dichloride (1,2-Dichloropropane)	78875
Acrylamide	79061	Carbon tetrachloride	56235
Hexachlorobenzene	118741	Benzene	71432
Chlordane	57749	Methyl hydrazine	60344
1,3-Propane sultone	1120714	Ethyl acrylate	140885

Chemical name	CAS No.
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis (2-ethylhexyl) phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644
2-Nitropropane	79469
1,3-Dichloropropene	542756
7, 12-Dimethylbenz(a) anthracene	57976
Benz(c) acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2:7,8-Dibenzopyrene	189559

[63 FR 71382, Dec. 28, 1998]

TABLE 5 TO SUBPART JJ OF PART 63—LIST OF VHAP OF POTENTIAL CONCERN IDENTIFIED BY INDUSTRY

CAS No.	Chemical name	EPA de minimis, tons/yr
68122	Dimethyl formamide	1.0
50000	Formaldehyde	0.2
75092	Methylene chloride	4.0
79469	2-Nitropropane	1.0
78591	Isophorone	0.7
1000425	Styrene monomer	1.0
108952	Phenol	0.1
111422	Dimethanolamine	5.0
109864	2-Methoxyethanol	10.0
111159	2-Ethoxyethyl acetate	10.0

[63 FR 71382, Dec. 28, 1998]

TABLE 6 TO SUBPART JJ OF PART 63—VHAP OF POTENTIAL CONCERN

CAS No.	Chemical name	EPA de minimis, tons/yr*
92671	4-Aminobiphenyl	1.0
96093	Styrene oxide	1.0
64675	Diethyl sulfate	1.0
59892	N-Nitrosomorpholine	1.0
68122	Dimethyl formamide	1.0
680319	Hexamethylphosphoramide	0.01
60355	Acetamide	1.0
101779	4,4′-Methylenedianiline	1.0
90040	o-Anisidine	1.0
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.00000006
92875	Benzidine	0.00003
684935	N-Nitroso-N-methylurea	0.00002
542881	Bis(chloromethyl) ether	0.00003
79447	Dimethyl carbamoyl chloride	0.002
75558	1,2-Propylenimine (2-Methyl aziridine)	0.0003
57147	1,1-Dimethyl hydrazine	0.0008
96128	1,2-Dibromo-3-chloropropane	0.001
62759	N-Nitrosodimethylamine	0.0001
50328	Benzo (a) pyrene	0.001
1336363	Polychlorinated biphenyls (Aroclors)	0.0009
76448	Heptachlor	0.002
119937	3,3′-Dimethyl benzidine	0.001
79061	Acrylamide	0.002
118741	Hexachlorobenzene	0.004
57749	Chlordane	0.005
1120714	1,3-Propane sultone	0.003
106990	1,3-Butadiene	0.007
53963	2-Acetylaminoflourine	0.0005
91941	3,3′-Dichlorobenzidine	0.02
58899	Lindane (hexachlorocyclohexane, gamma)	0.005
95807	2,4-Toluene diamine	0.002
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.006
122667	1,2—Diphenylhydrazine	0.009
8001352	Toxaphene (chlorinated camphene)	0.006
121142	2,4-Dinitrotoluene	0.002
119904	3,3′-Dimethoxybenzidine	0.01
50000	Formaldehyde	0.2
101144	4,4′-Methylene bis(2-chloroaniline)	0.02
107131	Acrylonitrile	0.03
106934	Ethylene dibromide(1,2-Dibromoethane)	0.01
72559	DDE (1,1-p-chlorophenyl 1–2 dichloroethylene)	0.01
510156	Chlorobenzilate	0.04

CAS No.	Chemical name	EPA de minimis, tons/yr*
62737	Dichlorvos	0.02
75014	Vinyl chloride	0.02
75218	Ethylene oxide	0.09
96457	Ethylene thiourea	0.06
593602	Vinyl bromide (bromoethene)	0.06
67663	Chloroform	0.09
87865	Pentachlorophenol	0.07
51796	Ethyl carbamate (Urethane)	0.08
107062	Ethylene dichloride (1,2-Dichloroethane)	0.08
78875	Propylene dichloride (1,2-Dichloropropane)	0.1
56235	Carbon tetrachloride	0.1
71432	Benzene	0.2
140885	Ethyl acrylate	0.1
75569	Propylene oxide	0.5
62533	Aniline	0.1
106467	1,4-Dichlorobenzene(p)	0.3
88062	2,4,6-Trichlorophenol	0.6
117817	Bis (2-ethylhexyl) phthalate (DEHP)	0.5
95534	o-Toluidine	0.4
114261	Propoxur	2.0
79016	Trichloroethylene	1.0
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.6
75070	Acetaldehyde	0.9
75252	Bromoform	2.0
133062	Captan	2.0
106898	Epichlorohydrin	2.0
75092	Methylene chloride (Dichloromethane)	4.0
127184	Tetrachloroethylene (Perchloroethylene)	4.0
53703	Dibenz (ah) anthracene	0.01
218019	Chrysene	0.01
60117	Dimethyl aminoazobenzene	1.0
56553	Benzo (a) anthracene	0.01
205992	Benzo (b) fluoranthene	0.01
79469	2-Nitropropane	1.0
542756	1,3-Dichloropropene	1.0
57976	7,12-Dimethylbenz (a) anthracene	0.01
225514	Benz(c)acridine	0.01
193395	Indeno(1,2,3-cd)pyrene	0.01
189559	1,2:7,8-Dibenzopyrene	0.01
79345	1,1,2,2-Tetrachloroethane	0.03
91225	Quinoline	0.0006
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.04
87683	Hexachlorobutadiene	0.09
82688	Pentachloronitrobenzene (Quintobenzene)	0.03
78591	Isophorone	0.7
79005	1,1,2-Trichloroethane	0.1
74873	Methyl chloride (Chloromethane)	1.0
67721	Hexachloroethane	0.5
1582098	Trifluralin	0.9
1319773	Cresols/Cresylic acid (isomers and mixture)	1.0
108394	m-Cresol	1.0
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.0
95487	o-Cresol	1.0
106445	p-Cresol	1.0
74884	Methyl iodide (Iodomethane)	1.0
100425	Styrene	1.0
107051	Allyl chloride	1.0
334883	Diazomethane	1.0
95954	2,4,5—Trichlorophenol	1.0
133904	Chloramben	1.0
106887	1,2—Epoxybutane	1.0
108054	Vinyl acetate	1.0
126998	Chloroprene	1.0
123319	Hydroquinone	1.0
92933	4-Nitrobiphenyl	1.0
56382	Parathion	0.1
13463393	Nickel Carbonyl	0.1
60344	Methyl hydrazine	0.006
151564	Ethylene imine	0.0003
77781	Dimethyl sulfate	0.1
107302	Chloromethyl methyl ether	0.1
57578	beta-Propiolactone	0.1
100447	Benzyl chloride	0.04

CAS No.	Chemical name	EPA de minimis, tons/yr*
98077	Benzotrichloride	0.0006
107028	Acrolein	0.04
584849	2,4—Toluene diisocyanate	0.1
75741	Tetramethyl lead	0.01
78002	Tetraethyl lead	0.01
12108133	Methylcyclopentadienyl manganese	0.1
624839	Methyl isocyanate	0.1
77474	Hexachlorocyclopentadiene	0.1
62207765	Fluomine	0.1
10210681	Cobalt carbonyl	0.1
79118	Chloroacetic acid	0.1
534521	4,6-Dinitro-o-cresol, and salts	0.1
101688	Methylene diphenyl diisocyanate	0.1
108952	Phenol	0.1
62384	Mercury, (acetato-o) phenyl	0.01
98862	Acetophenone	1.0
108316	Maleic anhydride	1.0
532274	2-Chloroacetophenone	0.06
51285	2,4-Dinitrophenol	1.0
109864	2-Methyoxy ethanol	10.0
98953	Nitrobenzene	1.0
74839	Methyl bromide (Bromomethane)	10.0
75150	Carbon disulfide	1.0
121697	N,N-Dimethylaniline	1.0
106514	Quinone	5.0
123386	Propionaldehyde	5.0
120809	Catechol	5.0
85449	Phthalic anhydride	5.0
463581	Carbonyl sulfide	5.0
132649	Dibenzofurans	5.0
100027	4-Nitrophenol	5.0
540841	2,2,4-Trimethylpentane	5.0
111422	Diethanolamine	5.0
822060	Hexamethylene-1,6-diisocyanate	5.0
	Glycol ethers[a]	5.0
	Polycyclic organic matter[b]	0.01

*These values are based on the de minimis levels provided in the proposed rulemaking pursuant to section 112(g) of the Act using a 70-year lifetime exposure duration for all VHAP. Default assumptions and the de minimis values based on inhalation reference doses (RfC) are not changed by this adjustment.

[a] Except for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-methoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate.

[b] Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah) anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

[63 FR 71383, Dec. 28, 1998]

Subpart KK—National Emission Standards for the Printing and Publishing Industry

SOURCE: 61 FR 27140, May 30, 1996, unless otherwise noted.

§ 63.820 Applicability.

(a) The provisions of this subpart apply to:

(1) Each new and existing facility that is a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated, and

(2) Each new and existing facility at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated for which the owner or operator chooses to commit to and meets the criteria of paragraphs (a)(2)(i) and (ii) of this section for purposes of establishing the facility to be an area source of HAP with respect to this subpart. A facility which establishes area source status through some other mechanism, as described in paragraph (a)(7) of this section, is not subject to the provisions of this subpart.

(i) Use less than 9.1 Mg (10 tons) per each rolling 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing, and

(ii) Use less than 22.7 Mg (25 tons) per each rolling 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.

(3) Each facility for which the owner or operator chooses to commit to and meets the criteria stated in paragraph (a)(2) of this section shall be considered an area source, and is subject only to the provisions of §§ 63.829(d) and 63.830(b)(1) of this subpart.

(4) Each facility for which the owner or operator commits to the conditions in paragraph (a)(2) of this section may exclude material used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining electric, propane, gasoline and diesel powered motor vehicles operated by the facility, and the use of HAP contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion).

(5) Each facility for which the owner or operator commits to the conditions in paragraph (a)(2) of this section to become an area source, but subsequently exceeds either of the thresholds in paragraph (a)(2) of this section for any rolling 12-month period (without first obtaining and complying with other limits that keep its potential to emit HAP below major source levels), shall be considered in violation of its commitment for that 12-month period and shall be considered a major source of HAP beginning the first month after the end of the 12-month period in which either of the HAP-use thresholds was exceeded. As a major source of HAP, each such facility would be subject to the provisions of this subpart as noted in paragraph (a)(1) of this section and would no longer be eligible to use the provisions of paragraph (a)(2) of this section, even if in subsequent 12-month periods the facility uses less HAP than the thresholds in paragraph (a)(2) of this section.

(6) An owner or operator of an affected source subject to paragraph (a)(2) of this section who chooses to no longer be subject to paragraph (a)(2) of this section shall notify the Administrator of such change. If, by no longer being subject to paragraph (a)(2) of this section, the facility at which the affected source is located becomes a major source:

(i) The owner or operator of an existing source must continue to comply with the HAP usage provisions of paragraph (a)(2) of this section until the source is in compliance with all relevant requirements for existing affected sources under this subpart;

(ii) The owner or operator of a new source must continue to comply with the HAP usage provisions of paragraph (a)(2) of this section until the source is in compliance with all relevant requirements for new affected sources under this subpart.

(7) Nothing in this paragraph is intended to preclude a facility from establishing area source status by limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(b) This subpart does not apply to research or laboratory equipment.

(c) In response to an action to enforce the standards set forth in this subpart, an owner or operator may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by a malfunction, as defined in § 63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet the burden of proving all the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a limit, the owners or operators of a facility must timely meet the notification requirements of paragraph (c)(2) of this section, and must prove by a preponderance of evidence that:

(i) The excess emissions were caused by a sudden, infrequent, and unavoidable failure of air pollution control and

monitoring equipment, or a process to operate in a normal or usual manner; and could not have been prevented through careful planning, proper design or better operation and maintenance practices; and did not stem from any activity or event that could have been foreseen and avoided, or planned for; and were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

(ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs;

(iii) The frequency, amount, and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

(iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health;

(vi) All emissions monitoring and control systems were kept in operation, if at all possible, consistent with safety and good air pollution control practices;

(vii) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs;

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(ix) The owner or operator has prepared a written root cause analysis, the purpose of which is to determine, correct and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using the best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(2) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (c)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29799, May 24, 2006; 76 FR 22597, Apr. 21, 2011]

§ 63.821 Designation of affected sources.

(a) The affected sources subject to this subpart are:

(1) All of the publication rotogravure presses and all related equipment, including proof presses, cylinder and parts cleaners, ink and solvent mixing and storage equipment, and solvent recovery equipment at a facility.

(2) All of the product and packaging rotogravure or wide-web flexographic printing presses at a facility plus any other equipment at that facility which the owner or operator chooses to include in accordance with paragraphs (a)(3) or (a)(4) of this section, except

(i) Proof presses, unless the owner or operator chooses to include proof presses in the affected source in accordance with paragraph (a)(5) of this section.

(ii) Any product and packaging rotogravure or wide-web flexographic press which is used primarily for coating, laminating, or other operations which the owner or operator chooses to exclude, provided that

(A) the sum of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press using product and packaging rotogravure print stations and the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press using wide-web flexographic print stations in each month never exceeds 5 percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press in that month, including all inboard and outboard stations; and

(B) The owner or operator maintains records as required in § 63.829(f).

(3) The owner or operator of an affected source, as defined in paragraph (a)(2) of this section, may elect to include in that affected source standalone equipment subject to the following provisions:

(i) Stand-alone equipment meeting any of the criteria specified in this subparagraph is eligible for inclusion:

(A) The stand-alone equipment and one or more product and packaging rotogravure or wide-web flexographic presses are used to apply solids-containing materials to the same web or substrate; or

(B) The stand-alone equipment and one or more product and packaging rotogravure or wide-web flexographic presses apply a common solids-containing material; or

(C) A common control device is used to control organic HAP emissions from the stand-alone equipment and from one or more product and packaging rotogravure or wide-web flexographic printing presses;

(ii) All eligible stand-alone equipment located at the facility is included in the affected source; and

(iii) No product and packaging rotogravure or wide-web flexographic presses are excluded from the affected source under the provisions of paragraph (a)(2)(ii) of this section.

(4) The owner or operator of an affected source, as defined in paragraph (a)(2) of this section, may elect to include in that affected source narrow-web flexographic presses subject to the following provisions:

(i) Each narrow-web flexographic press meeting any of the criteria specified in this subparagraph is eligible for inclusion:

(A) The narrow-web flexographic press and one or more product and packaging rotogravure or wide-web flexographic presses are used to apply solids containing material to the same web or substrate; or

(B) The narrow-web flexographic press and one or more product and packaging rotogravure or wide-web flexographic presses apply a common solids-containing material; or

(C) A common control device is used to control organic HAP emissions from the narrow-web flexographic press and from one or more product and packaging rotogravure or wide-web flexographic presses; and

(ii) All eligible narrow-web flexographic presses located at the facility are included in the affected source.

(5) The owner or operator of an affected source, as defined in paragraph (a)(2) of this section, may elect to include in that affected source rotogravure proof presses or flexographic proof presses subject to the following provisions:

(i) Each proof press meeting any of the criteria specified in this subparagraph is eligible for inclusion.

(A) The proof press and one or more product and packaging rotogravure or wide-web flexographic presses apply a common solids-containing material; or

(B) A common control device is used to control organic HAP emissions from the proof press and from one or more product and packaging rotogravure or wide-web flexographic presses; and

(ii) All eligible proof presses located at the facility are included in the affected source.

(6) Affiliated operations such as mixing or dissolving of ink or coating ingredients prior to application; ink or coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of ink or coating lines and line parts; handling and storage of inks, coatings, and solvents; and conveyance and treatment of wastewater are part of the printing and publishing industry source category, but are not part of the product

and packaging rotogravure or wide-web flexographic printing affected source.

(7) Other presses are part of the printing and publishing industry source category, but are not part of the publication rotogravure affected source or the product and packaging rotogravure or wide-web flexographic printing affected source and are, therefore, exempt from the requirements of this subpart except as provided in paragraph (a)(3) of this section.

(8) Narrow web-flexographic presses are part of the printing and publishing industry source category, but are not part of the publication rotogravure affected source or the product and packaging rotogravure or wide-web flexographic printing affected source and are, therefore, exempt from the requirements of this subpart except as provided in paragraphs (a)(3) through (5) of this section.

(b) Each product and packaging rotogravure or wide-web flexographic printing affected source at a facility that is a major source of HAP, as defined in 40 CFR 63.2, that complies with the criteria of paragraphs (b)(1) or (b)(2) on and after the applicable compliance date as specified in § 63.826 of this subpart is subject only to the requirements of §§ 63.829(e) and 63.830(b)(1) of this subpart.

(1) The owner or operator of the affected source applies no more than 500 kilograms (kg) per month, for every month, of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials on product and packaging rotogravure or wide-web flexographic printing presses, or

(2) The owner or operator of the affected source applies no more than 400 kg per month, for every month, of organic HAP on product and packaging rotogravure or wide-web flexographic printing presses.

(c) Each product and packaging rotogravure or wide-web flexographic printing affected source at a facility that is a major source of HAP, as defined in 40 CFR 63.2, that complies with neither the criterion of paragraph (b)(1) nor (b)(2) of this section in any month after the applicable compliance date as specified in § 63.826 of this subpart is, starting with that month, subject to all relevant requirements of this subpart and is no longer eligible to use the provisions of paragraph (b) of this section, even if in subsequent months the affected source does comply with the criteria of paragraphs (b)(1) or (b)(2) of this section.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29799, May 24, 2006]

§ 63.822 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A of this part.

Affirmative defense means, in the context of an enforcement proceeding, a response or a defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Always-controlled work station means a work station associated with a dryer from which the exhaust is delivered to a control device, with no provision for the dryer exhaust to bypass the control device. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Capture efficiency means the fraction of all organic HAP emissions generated by a process that are delivered to a control device, expressed as a percentage.

Capture system means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that exhausts to a control device.

Car-seal means a seal that is placed on a device that is used to change the position of a valve or damper (e.g., from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

Certified product data sheet (CPDS) means documentation furnished by suppliers of inks, coatings, varnishes, adhesives, primers, solvents, and other materials or by an independent third party that provides the organic HAP weight fraction of these materials determined in accordance with § 63.827(b), or the volatile matter weight fraction or solids weight fraction determined in accordance with § 63.827(c). A material safety data sheet (MSDS) may serve as

a CPDS provided the MSDS meets the data requirements of § 63.827(b) and (c). The purpose of the CPDS is to assist the owner or operator in demonstrating compliance with the emission limitations presented in §§ 63.824–63.825.

Coating means material applied onto or impregnated into a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, solvent-borne coatings, waterborne coatings, wax coatings, wax laminations, extrusion coatings, extrusion laminations, 100 percent solid adhesives, ultra-violet cured coatings, electron beam cured coatings, hot melt coatings, and cold seal coatings. Materials used to form unsupported substrates such as calendaring of vinyl, blown film, cast film, extruded film, and coextruded film are not considered coatings.

Control device means a device such as a carbon adsorber or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

Control device efficiency means the ratio of organic HAP emissions recovered or destroyed by a control device to the total organic HAP emissions that are introduced into the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Flexible packaging means any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, labels, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

Flexographic press means an unwind or feed section, which may include more than one unwind or feed station (such as on a laminator), a series of individual work stations, one or more of which is a flexographic print station, any dryers (including interstage dryers and overhead tunnel dryers) associated with the work stations, and a rewind, stack, or collection section. The work stations may be oriented vertically, horizontally, or around the circumference of a single large impression cylinder. Inboard and outboard work stations, including those employing any other technology, such as rotogravure, are included if they are capable of printing or coating on the same substrate. A publication rotogravure press with one or more flexographic imprinters is not a flexographic press.

Flexographic print station means a print station on which a flexographic printing operation is conducted. A flexographic print station includes an anilox roller that transfers material to a raised image (type or art) on a plate cylinder. The material is then transferred from the image on the plate cylinder to the web or sheet to be printed. A flexographic print station may include a fountain roller to transfer material from the reservoir to the anilox roller, or material may be transferred directly from the reservoir to the anilox roller. The materials applied are of a fluid, rather than paste, consistency.

HAP applied means the organic HAP content of all inks, coatings, varnishes, adhesives, primers, solvent, and other materials applied to a substrate by a product and packaging rotogravure or wide-web flexographic printing affected source.

HAP used means the organic HAP applied by a publication rotogravure printing affected source, including all organic HAP used for cleaning, parts washing, proof presses, and all organic HAP emitted during tank loading, ink mixing, and storage.

Intermittently-controllable work station means a work station associated with a dryer with provisions for the dryer exhaust to be delivered to or diverted from a control device depending on the position of a valve or damper. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Month means a calendar month or a prespecified period of 28 days to 35 days.

Narrow-web flexographic press means a flexographic press that is not capable of printing substrates greater than 18 inches in width and that does not also meet the definition of rotogravure

press (i.e., it has no rotogravure print stations).

Never-controlled work station means a work station which is not equipped with provisions by which any emissions, including those in the exhaust from any associated dryer, may be delivered to a control device.

Other press means a lithographic press, letterpress press, or screen printing press that does not meet the definition of rotogravure press or flexographic press (i.e., it has no rotogravure print stations and no flexographic print stations), and that does not print on fabric or other textiles as defined in the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP (40 CFR part 63, subpart OOOO), wood furniture components as defined in the Wood Furniture Manufacturing Operations NESHAP (40 CFR part 63, subpart JJ) or wood building products as defined in the Surface Coating of Wood Building Products NESHAP (40 CFR part 63, subpart QQQQ).

Overall Organic HAP control efficiency means the total efficiency of a control system, determined either by:

(1) The product of the capture efficiency and the control device efficiency or

(2) A liquid-liquid material balance.

Print station means a work station on which a printing operation is conducted.

Printing operation means the formation of words, designs, or pictures on a substrate other than wood furniture components as defined in the Wood Furniture Manufacturing Operations NESHAP (40 CFR part 63, subpart JJ), wood building products as defined in the Surface Coating of Wood Building Products NESHAP (40 CFR part 63, subpart QQQQ), and fabric or other textiles as defined in the Printing, Coating, and Dyeing of Fabric and Other Textiles NESHAP (40 CFR part 63, subpart OOOO), except for fabric or other textiles for use in flexible packaging.

Product and packaging rotogravure printing means the production, on a rotogravure press, of any printed substrate not otherwise defined as publication rotogravure printing. This includes, but is not limited to, folding cartons, flexible packaging, labels and wrappers, gift wraps, wall and floor coverings, upholstery, decorative laminates, and tissue products.

Proof press means any press which prints only non-saleable items used to check the quality of image formation of rotogravure cylinders or flexographic plates; substrates such as paper, plastic film, metal foil, or vinyl; or ink, coating varnish, adhesive, primer, or other solids-containing material.

Publication rotogravure press means a rotogravure press used for publication rotogravure printing. A publication rotogravure press may include one or more flexographic imprinters. A publication rotogravure press with one or more flexographic imprinters is not a flexographic press.

Publication rotogravure printing means the production, on a rotogravure press, of the following saleable paper products:

(1) Catalogues, including mail order and premium,

(2) Direct mail advertisements, including circulars, letters, pamphlets, cards, and printed envelopes,

(3) Display advertisements, including general posters, outdoor advertisements, car cards, window posters; counter and floor displays; point of purchase and other printed display material,

(4) Magazines,

(5) Miscellaneous advertisements, including brochures, pamphlets, catalog sheets, circular folders, announcements, package inserts, book jackets, market circulars, magazine inserts, and shopping news,

(6) Newspapers, magazine and comic supplements for newspapers, and preprinted newspaper inserts, including hi-fi and spectacolor rolls and sections,

(7) Periodicals, and

(8) Telephone and other directories, including business reference services.

Research or laboratory equipment means any equipment for which the primary purpose is to conduct research and development into new processes and products, where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Rotogravure press means an unwind or feed section, which may include more than one unwind or feed station (such as on a laminator), a series of individual work stations, one or more of which is a rotogravure print station, any dryers associated with the work stations, and a rewind, stack, or collection section. Inboard and outboard work stations, including those employing any other technology, such as flexography, are included if they are capable of printing or coating on the same substrate.

Rotogravure print station means a print station on which a rotogravure printing operation is conducted. A rotogravure print station includes a rotogravure cylinder and supply for ink or other solids containing material. The image (type and art) to be printed is etched or engraved below the surface of the rotogravure cylinder. On a rotogravure cylinder the printing image consists of millions of minute cells.

Stand-alone equipment means an unwind or feed section, which may include more than one unwind or feed station (such as on a laminator); a series of one or more work stations and any associated dryers; and a rewind, stack, or collection section that is not part of a product and packaging rotogravure or wide-web flexographic press. Stand-alone equipment is sometimes referred to as ''off-line'' equipment.

Wide-web flexographic press means a flexographic press capable of printing substrates greater than 18 inches in width.

Work station means a unit on which material is deposited onto a substrate.

(b) The symbols used in equations in this subpart are defined as follows:

(1) C_{ahi} = the monthly average, as-applied, organic HAP content of solids-containing material, i, expressed as a weight-fraction, kg/kg.

(2) C_{asi} = the monthly average, as applied, solids content, of solids-containing material, i, expressed as a weight-fraction, kg/kg.

(3) C_{hi} = the organic HAP content of ink or other solids-containing material, i, expressed as a weight-fraction, kg/kg.

(4) C_{hij} = the organic HAP content of solvent j, added to solids-containing material i, expressed as a weight-fraction, kg/kg.

(5) C_{hj} = the organic HAP content of solvent j, expressed as a weight-fraction, kg/kg.

(6) [Reserved]

(7) C_{si} = the solids content of ink or other material, i, expressed as a weight-fraction, kg/kg.

(8) C_{vi} = the volatile matter content of ink or other material, i, expressed as a weight-fraction, kg/kg.

(9) E = the organic volatile matter control efficiency of the control device, percent.

(10) F = the organic volatile matter capture efficiency of the capture system, percent.

(11) G_i = the mass fraction of each solids containing material, i, which was applied at 20 weight-percent or greater solids content, on an as-applied basis, kg/kg.

(12) H = the monthly organic HAP emitted, kg.

(13) H_a = the monthly allowable organic HAP emissions, kg.

(14) H_L = the monthly average, as-applied, organic HAP content of all solids-containing materials applied at less than 0.04 kg organic HAP per kg of material applied, kg/kg.

(15) H_s = the monthly average, as-applied, organic HAP to solids ratio, kg organic HAP/kg solids applied.

(16) H_{si} = the as-applied, organic HAP to solids ratio of material i.

(17) L = the mass organic HAP emission rate per mass of solids applied, kg/kg.

(18) M_{Bi} = the sum of the mass of solids-containing material, i, applied on intermittently-controllable work stations operating in bypass mode and the mass of solids-containing material, i, applied on never-controlled work stations, in a month, kg.

(19) M_{Bj} = the sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied on intermittently-controllable work stations operating in bypass mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied on never-controlled work stations, in a month, kg.

(20) M_{ci} = the sum of the mass of solids-containing material, i, applied on

intermittently-controllable work stations operating in controlled mode and the mass of solids-containing material, i, applied on always-controlled work stations, in a month, kg.

(21) M_{cj} = the sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied on intermittently-controllable work stations operating in controlled mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied on always-controlled work stations in a month, kg.

(22) [Reserved]

(23) M_{fi} = the organic volatile matter mass flow rate at the inlet to the control device, kg/h.

(24) M_{fo} = the organic volatile matter mass flow rate at the outlet of the control device, kg/h.

(25) M_{hu} = the mass of organic HAP used in a month, kg.

(26) M_i = the mass of ink or other material, i, applied in a month, kg.

(27) M_{ij} = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, added to solids-containing material, i, in a month, kg.

(28) M_j = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied in a month, kg.

(29) M_{Lj} = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, added to solids-containing materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, in a month, kg.

(30) M_{vr} = the mass of volatile matter recovered in a month, kg.

(31) M_{vu} = the mass of volatile matter, including water, used in a month, kg.

(32) [Reserved]

(33) n = the number of organic compounds in the vent gas.

(34) p = the number of different inks, coatings, varnishes, adhesives, primers, and other materials applied in a month.

(35) q = the number of different solvents, thinners, reducers, diluents, or other non-solids-containing materials applied in a month.

(36) [Reserved]

(37) R = the overall organic HAP control efficiency, percent.

(38) R_e = the overall effective organic HAP control efficiency for publication rotogravure, percent.

(39) R_v = the organic volatile matter collection and recovery efficiency, percent.

(40) S = the mass organic HAP emission rate per mass of material applied, kg/kg.

(41) 0.0416 = conversion factor for molar volume, kg-mol/m^3(@ 293 K and 760 mmHg).

[61 FR 27140, May 30, 1996, as amended at 71 FR 29800, May 24, 2006; 76 FR 22598, Apr. 21, 2011]

§ 63.823 Standards: General.

(a) Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to this subpart KK.

(b) Each owner or operator of an affected source subject to this subpart must at all times operate and maintain that affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[76 FR 22598, Apr. 21, 2011]

§ 63.824 Standards: Publication rotogravure printing.

(a) Each owner or operator of any publication rotogravure printing affected source that is subject to the requirements of this subpart shall comply with these requirements on and after the compliance dates as specified in § 63.826 of this subpart.

(b) Each publication rotogravure affected source shall limit emissions of organic HAP to no more than eight percent of the total volatile matter

used each month. The emission limitation may be achieved by overall control of at least 92 percent of organic HAP used, by substitution of non-HAP materials for organic HAP, or by a combination of capture and control technologies and substitution of materials. To demonstrate compliance, each owner or operator shall follow the procedure in paragraph (b)(1) of this section when emissions from the affected source are controlled by a solvent recovery device, the procedure in paragraph (b)(2) of this section when emissions from the affected source are controlled by an oxidizer, and the procedure in paragraph (b)(3) of this section when no control device is used.

(1) Each owner or operator using a solvent recovery device to control emissions shall demonstrate compliance by showing that the HAP emission limitation is achieved by following the procedures in either paragraph (b)(1)(i) or (b)(1)(ii) of this section:

(i) Perform a liquid-liquid material balance for each month as follows:

(A) Measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material used by the affected source during the month.

(B) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent and other material used by the affected source during the month following the procedure in § 63.827(b)(1).

(C) Determine the volatile matter content, including water, of each ink, coating, varnish, adhesive, primer, solvent, and other material used by the affected source during the month following the procedure in § 63.827(c)(1).

(D) Install, calibrate, maintain and operate, according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to within ±2.0 percent.

(E) Measure the amount of volatile matter recovered for the month.

(F) Calculate the overall effective organic HAP control efficiency (R_e) for the month using Equation 1:

$$R_e = (100)\frac{M_{vu} - M_{hu} + \left[\left(M_{vr}\right)\left(M_{hu} / M_{vu}\right)\right]}{M_{vu}} \qquad \text{Eq 1}$$

For the purposes of this calculation, the mass fraction of organic HAP present in the recovered volatile matter is assumed to be equal to the mass fraction of organic HAP present in the volatile matter used.

(G) The affected source is in compliance for the month, if R_e is at least 92 percent each month.

(ii) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency as specified in paragraphs (b)(1)(ii)(A) through (b)(1)(ii)(E) of this section:

(A) Install continuous emission monitors to collect the data necessary to calculate the total organic volatile matter mass flow in the gas stream entering and the total organic volatile matter mass flow in the gas stream exiting the solvent recovery device for each month such that the percent control efficiency (E) of the solvent recovery device can be calculated for the month. This requires continuous emission monitoring of the total organic volatile matter concentration in the gas stream entering the solvent recovery device, the total organic volatile matter concentration in the gas stream exiting the solvent recovery device, and the volumetric gas flow rate through the solvent recovery device. A single continuous volumetric gas flow measurement should be sufficient for a solvent recovery device since the inlet and outlet volumetric gas flow rates for a solvent recovery device are essentially equal. Each month's individual

inlet concentration values and corresponding individual gas flow rate values are multiplied and then summed to get the total organic volatile matter mass flow in the gas stream entering the solvent recovery device for the month. Each month's individual outlet concentration values and corresponding individual gas flow rate values are multiplied and then summed to get the total organic volatile matter mass flow in the gas stream exiting the solvent recovery device for the month.

(B) Determine the percent capture efficiency (F) of the capture system according to § 63.827(e).

(C) Calculate the overall effective organic HAP control efficiency (R_e) achieved for each month using Equation 2.

$$R_e = (100)\frac{M_{vu} - M_{hu} + \left[(E/100)(F/100)M_{hu}\right]}{M_{vu}} \qquad \text{Eq 2}$$

(D) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.828(a)(5) whenever a publication rotogravure printing press is operated.

(E) The affected source is in compliance with the requirement for the month if R_e is at least 92 percent, and the capture device is operated at an average value greater than, or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three-hour period.

(2) Each owner or operator using an oxidizer to control emissions shall demonstrate compliance by showing that the HAP emission limitation is achieved by following the procedure in either paragraph (b)(2)(i) or (b)(2)(ii) of this section:

(i) Demonstrate initial compliance through performance tests and continuing compliance through continuous monitoring as follows:

(A) Determine the oxidizer destruction efficiency (E) using the procedure in § 63.827(d).

(B) Determine the capture efficiency (F) using the procedure in § 63.827(e).

(C) [Reserved]

(D) Calculate the overall effective organic HAP control efficiency (R_e) achieved using Equation 2.

(E) The affected source is in initial compliance if R_e is at least 92 percent. Demonstration of continuing compliance is achieved by continuous monitoring of an appropriate oxidizer operating parameter in accordance with § 63.828(a)(4), and by continuous monitoring of an appropriate capture system monitoring parameter in accordance with § 63.828(a)(5). The affected source is in continuing compliance if the capture device is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5), and

(*1*) if an oxidizer other than a catalytic oxidizer is used, the average combustion temperature for all three-hour periods is greater than or equal to the average combustion temperature established under § 63.827(d), or

(*2*) if a catalytic oxidizer is used, the average catalyst bed inlet temperature for all three-hour periods is greater than or equal to the average catalyst bed inlet temperature established in accordance with § 63.827(d).

(ii) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency. The percent control efficiency of the oxidizer shall be demonstrated in accordance with the requirements of paragraph (b)(1)(ii) of this section except that separate continuous measurements of the inlet volumetric gas flow rate and the outlet volumetric gas flow rate are required for an oxidizer.

(3) To demonstrate compliance without the use of a control device, each owner or operator shall compare the mass of organic HAP used to the mass of volatile matter used each month, as

specified in paragraphs (b)(3)(i) through (b)(3)(iv) of this section:

(i) Measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material used in the affected source during the month.

(ii) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material used during the month following the procedure in § 63.827(b)(1), and

(iii) Determine the volatile matter content, including water, of each ink, coating, varnish, adhesive, primer, solvent, and other material used during the month following the procedure in § 63.827(c)(1).

(iv) The affected source is in compliance for the month if the mass of organic HAP used does not exceed eight percent of the mass of volatile matter used.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29801, May 24, 2006]

§ 63.825 Standards: Product and packaging rotogravure and wide-web flexographic printing.

(a) Each owner or operator of any product and packaging rotogravure or wide-web flexographic printing affected source that is subject to the requirements of this subpart shall comply with these requirements on and after the compliance dates as specified in § 63.826 of this subpart.

(b) Each product and packaging rotogravure or wide-web flexographic printing affected source shall limit organic HAP emissions to no more than 5 percent of the organic HAP applied for the month; or to no more than 4 percent of the mass of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month; or to no more than 20 percent of the mass of solids applied for the month; or to a calculated equivalent allowable mass based on the organic HAP and solids contents of the inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month. The owner or operator of each product and packaging rotogravure or wide-web flexographic printing affected source shall demonstrate compliance with this standard by following one of the procedures in paragraphs (b)(1) through (b)(10) of this section:

(1) Demonstrate that each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied during the month contains no more than 0.04 weight-fraction organic HAP, on an as-purchased basis, as determined in accordance with § 63.827(b)(2).

(2) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied during the month contains no more than 0.04 weight-fraction organic HAP, on a monthly average as-applied basis as determined in accordance with paragraphs (b)(2)(i)–(ii) of this section. The owner or operator shall calculate the as-applied HAP content of materials which are reduced, thinned, or diluted prior to application, as follows:

(i) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied on an as-purchased basis in accordance with § 63.827(b)(2).

(ii) Calculate the monthly average as-applied organic HAP content, C_{ahi} of each ink, coating, varnish, adhesive, primer, and other solids-containing material using Equation 3.

$$C_{ahi} = \frac{\left(C_{hi} M_i + \sum_{j=1}^{q} C_{hij} M_{ij} \right)}{M_i + \sum_{j=1}^{q} M_{ij}} \qquad \text{Eq 3}$$

(3)(i) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied, either

(A) Contains no more than 0.04 weight-fraction organic HAP on a monthly average as-applied basis, or

(B) Contains no more than 0.20 kg of organic HAP per kg of solids applied, on a monthly average as-applied basis.

(ii) The owner or operator may demonstrate compliance in accordance with paragraphs (b)(3)(ii) (A)–(C) of this section.

(A) Use the procedures of paragraph (b)(2) of this section to determine

which materials meet the requirements of paragraph (b)(3)(i)(A) of this section,

(B) Determine the as-applied solids content following the procedure in § 63.827(c)(2) of all materials which do not meet the requirements of paragraph (b)(3)(i)(A) of this section. The owner or operator may calculate the monthly average as-applied solids content of materials which are reduced, thinned, or diluted prior to application, using Equation 4, and

$$C_{asi} = \frac{C_{si} M_i}{M_i + \sum_{j=1}^{q} M_{ij}} \qquad \text{Eq 4}$$

(C) Calculate the as-applied organic HAP to solids ratio, H_{si}, for all materials which do not meet the requirements of paragraph (b)(3)(i)(A) of this section, using Equation 5.

$$H_{si} = \frac{C_{ahi}}{C_{asi}} \qquad \text{Eq 5}$$

(4) Demonstrate that the monthly average as-applied organic HAP content, H_L, of all materials applied is less than 0.04 kg HAP per kg of material applied, as determined by Equation 6.

$$H_L = \frac{\sum_{i=1}^{p} M_i C_{hi} + \sum_{j=1}^{q} M_j C_{hj}}{\sum_{i=1}^{p} M_i + \sum_{j=1}^{q} M_j} \qquad \text{Eq 6}$$

(5) Demonstrate that the monthly average as-applied organic HAP content on the basis of solids applied, H_s, is less than 0.20 kg HAP per kg solids applied as determined by Equation 7.

$$H_S = \frac{\sum_{i=1}^{p} M_i C_{hi} + \sum_{j=1}^{q} M_j C_{hj}}{\sum_{i=1}^{p} M_i C_{si}} \qquad \text{Eq 7}$$

(6) Demonstrate that the total monthly organic HAP applied, H_{app}, as determined by Equation 8, is less than the calculated equivalent allowable organic HAP, H_a, as determined by paragraph (e) of this section.

$$H_{app} = \sum_{i=1}^{p} M_i C_{hi} + \sum_{j=1}^{q} M_j C_{hj} \qquad \text{Eq. 8}$$

Where:

H_{app} = Total monthly organic HAP applied, kg.

(7) Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month. If the affected source operates more than one capture system or more than one control device, and has only always-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of either paragraph (f) or (h) of this section. If the affected source operates one or more never-controlled work stations or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance in accordance with the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(8) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.20 kg organic HAP emitted per kg solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(9) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg material

applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(10) Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (e) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(c) To demonstrate compliance with the overall organic HAP control efficiency requirement in §63.825(b)(7) or the organic HAP emissions limitation requirements in §63.825(b)(8)–(10), each owner or operator using a solvent recovery device to control emissions shall show compliance by following the procedures in either paragraph (c)(1) or (c)(2) of this section:

(1) Perform a liquid-liquid material balance for each and every month as follows:

(i) Measure the mass of each ink, coating, varnish, adhesive, primer, solvent and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in §63.827(b)(2).

(iii) Determine the volatile matter content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in §63.827(c)(2).

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in §63.827(c)(2).

(v) Install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to within ±2.0 percent.

(vi) Measure the amount of volatile matter recovered for the month.

(vii) Calculate the volatile matter collection and recovery efficiency, R_v, using Equation 9.

$$R_v = 100\frac{M_{vr}}{\sum_{i=1}^{p} M_i C_{vi} + \sum_{j=1}^{q} M_j} \qquad \text{Eq 9}$$

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H, using Equation 10.

$$H = \left[1 - \frac{R_v}{100}\right]\left[\sum_{i=1}^{p}\left(C_{hi}M_i + \sum_{j=1}^{q} C_{hij}M_{ij}\right)\right] \qquad \text{Eq 10}$$

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, using Equation 11.

$$L = \frac{H}{\sum_{i=1}^{p} C_{si}M_i} \qquad \text{Eq 11}$$

(x) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 12.

$$S = \frac{H}{\sum_{i=1}^{p}\left[M_i + \sum_{j=1}^{q} M_{ij}\right]} \qquad \text{Eq 12}$$

(xi) The affected source is in compliance if

(A) The organic volatile matter collection and recovery efficiency, R_v, is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(C) the organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP per kg material applied or less, or

(D) the organic HAP emitted during the month, H, is less than the calculated allowable organic HAP, H_a, as determined using paragraph (e) of this section.

(2) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency following the procedures in paragraphs (c)(2)(i) through (c)(2)(xi) of this section:

(i) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied, or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common control device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(iii) Install continuous emission monitors to collect the data necessary to calculate the total organic volatile matter mass flow in the gas stream entering and the total organic volatile mass flow in the gas stream exiting the solvent recovery device for each month such that the percent control efficiency (E) of the solvent recovery device can be calculated for the month. This requires continuous emission monitoring of the total organic volatile matter concentration in the gas stream entering the solvent recovery device, the total organic volatile matter concentration in the gas stream exiting the solvent recovery device, and the volumetric gas flow rate through the solvent recovery device. A single continuous volumetric gas flow measurement should be sufficient for a solvent recovery device since the inlet and outlet volumetric gas flow rates for a solvent recovery device are essentially equal. Each month's individual inlet concentration values and corresponding individual gas flow rate values are multiplied and then summed to get the total organic volatile matter mass flow in the gas stream entering the solvent recovery device for the month. Each month's individual outlet

concentration values and corresponding individual gas flow rate values are multiplied and then summed to get the total organic volatile matter mass flow in the gas stream exiting the solvent recovery device for the month.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(v) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.828(a)(5) whenever a product and packaging rotogravure or wide-web flexographic printing press is operated.

(vi) Determine the capture efficiency (F) in accordance with § 63.827(e)–(f).

(vii) Calculate the overall organic HAP control efficiency, (R), achieved for each month using Equation 13.

$$R = \frac{EF}{100} \qquad \text{Eq 13}$$

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H, for each month using Equation 14.

$$H = \left[1 - \left(\frac{E}{100}\,\frac{F}{100}\right)\right]\left[\sum_{i=1}^{p}\left(C_{hi}M_i + \sum_{j=1}^{q} C_{hij}M_{ij}\right)\right] \qquad \text{Eq 14}$$

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, using Equation 15.

$$L = \frac{H}{\sum_{i=1}^{p} C_{si}M_i} \qquad \text{Eq 15}$$

(x) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 16.

$$S = \frac{H}{\sum_{i=1}^{p}\left[M_i + \sum_{j=1}^{q} M_{ij}\right]} \qquad \text{Eq 16}$$

(xi) The affected source is in compliance if the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three hour period, and

(A) The organic volatile matter collection and recovery efficiency, R_v, is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(C) The organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP per kg material applied or less, or

(D) The organic HAP emitted during the month, H, is less than the calculated allowable organic HAP, H_a, as determined using paragraph (e) of this section.

(d) To demonstrate compliance with the overall organic HAP control efficiency requirement in § 63.825(b)(7) or the overall organic HAP emission rate limitation requirements in § 63.825(b)(8)–(10), each owner or operator using an oxidizer to control emissions shall show compliance by following the procedures in either paragraph (d)(1) or (d)(2) of this section:

(1) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures in paragraph (d)(1)(i) through (d)(1)(xi) of this section:

(i) Determine the oxidizer destruction efficiency (E) using the procedure in § 63.827(d).

(ii) Determine the capture system capture efficiency (F) in accordance with § 63.827(e)–(f).

(iii) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied, or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common control device during the month.

(v) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(vi) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(vii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H, for each month using Equation 14.

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, for each month using Equation 15.

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 16.

(x) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with § 63.828(a)(4)–(5) whenever a product and packaging rotogravure or wide-web flexographic press is operating.

(xi) The affected source is in compliance, if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three hour period, and

(A) The overall organic HAP control efficiency, R, is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(C) The organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP per kg material applied or less, or

(D) The organic HAP emitted during the month, H, is less than the calculated allowable organic HAP, H_a, as determined using paragraph (e) of this section.

(2) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency. The percent control efficiency of the oxidizer shall be demonstrated in accordance with the requirements of paragraph (c)(2) of this section except that separate continuous volumetric

gas flow measurements of the inlet and outlet volumetric gas flow rates are required for an oxidizer.

(e) Owners or operators may calculate the monthly allowable HAP emissions, H_a, for demonstrating compliance in accordance with paragraph (b)(6), (c)(1)(xi)(D), (c)(2)(xi)(D), or (d)(1)(xi)(D) of this section as follows:

(1) Determine the as-purchased mass of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month, M_i.

(2) Determine the as-purchased solids content of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month, in accordance with § 63.827(c)(2), C_{si}.

(3) Determine the as-purchased mass fraction of each ink, coating, varnish, adhesive, primer, and other solids-containing material which was applied at 20 weight-percent or greater solids content, on an as-applied basis, G_i.

(4) Determine the total mass of each solvent, diluent, thinner, or reducer added to materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, each month, M_{Lj}.

(5) Calculate the monthly allowable HAP emissions, H_a, using Equation 17.

$$H_a = 0.20\left[\sum_{i=1}^{p} M_i G_i C_{si}\right] + 0.04\left[\sum_{i=1}^{p} M_i\left(1 - G_i\right) + \sum_{j=1}^{q} M_{Lj}\right] \qquad \text{Eq 17}$$

(f) Owners or operators of product and packaging rotogravure or wide-web flexographic printing presses shall demonstrate compliance according to the procedures in paragraphs (f)(1) through (f)(7) of this section if the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations.

(1) The owner or operator of each solvent recovery system used to control one or more product and packaging rotogravure or wide-web flexographic presses for which the owner or operator chooses to comply by means of a liquid-liquid mass balance shall determine the organic HAP emissions for those presses controlled by that solvent recovery system either

(i) in accordance with paragraphs (c)(1)(i)–(iii) and (c)(1)(v)–(viii) of this section if the presses controlled by that solvent recovery system have only always-controlled work stations, or

(ii) in accordance with paragraphs (c)(1)(ii)–(iii), (c)(1)(v)–(vi), and (g) of this section if the presses controlled by that solvent recovery system have one or more never-controlled or intermittently-controllable work stations.

(2) The owner or operator of each solvent recovery system used to control one or more product and packaging rotogravure or wide-web flexographic presses, for which the owner or operator chooses to comply by means of an initial test of capture efficiency, continuous emission monitoring of the control device, and continuous monitoring of a capture system operating parameter, shall

(i) For each capture system delivering emissions to that solvent recovery system, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture system efficiency, and

(ii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that solvent recovery system either

(A) In accordance with paragraphs (c)(2)(i)–(iii) and (c)(2)(v)–(viii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (c)(2)(ii)–(iii), (c)(2)(v)–(vii), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(3) The owner or operator of each oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic

presses choosing to demonstrate compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters, shall

(i) Monitor an operating parameter established in accordance with § 63.828(a)(4) to assure control device efficiency, and

(ii) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture efficiency, and

(iii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that oxidizer either

(A) In accordance with paragraphs (d)(1)(i)–(v) and (d)(1)(vii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (d)(1)(i)–(iii), (d)(1)(v), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(4) The owner or operator of each oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through an initial capture efficiency test, continuous emission monitoring of the control device and continuous monitoring of a capture system operating parameter, shall

(i) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture efficiency, and

(ii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that oxidizer either

(A) In accordance with paragraphs (c)(2)(i)–(iii) and (c)(2)(v)–(viii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (c)(2)(ii)–(iii), (c)(2)(v)–(vii), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(5) The owner or operator of one or more uncontrolled product and packaging rotogravure or wide-web flexographic printing presses shall determine the organic HAP applied on those presses using Equation 8. The organic HAP emitted from an uncontrolled press is equal to the organic HAP applied on that press.

(6) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, the owner or operator shall determine the solids content of each ink, coating, varnish, adhesive, primer, solvent and other material applied during the month following the procedure in § 63.827(c)(2).

(7) The owner or operator shall determine the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (f)(1), (f)(2)(ii), (f)(3)(iii), (f)(4)(ii), and (f)(5) of this section. The affected source is in compliance for the month, if all operating parameters required to be monitored under paragraphs (f)(2)–(4) of this section were maintained at the appropriate values, and

(i) The total mass of organic HAP emitted by the affected source was not more than four percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, diluents, reducers, thinners and other materials applied by the affected source, or

(ii) The total mass of organic HAP emitted by the affected source was not more than 20 percent of the total mass of solids applied by the affected source, or

(iii) The total mass of organic HAP emitted by the affected source was not more than the equivalent allowable organic HAP emissions for the affected source, H_a, calculated in accordance with paragraph (e) of this section, or

(iv) The total mass of organic HAP emitted by the affected source was not more than five percent of the total mass of organic HAP applied by the affected source. The total mass of organic HAP applied by the affected

source in the month shall be determined by the owner or operator using Equation 8.

(g) Owners or operators determining organic HAP emissions from a press or group of presses having one or more never-controlled or intermittently-controllable work stations and using the procedures specified in paragraphs (f)(1)(ii), (f)(2)(ii)(B), (f)(3)(iii)(B), or (f)(4)(ii)(B) of this section shall for that press or group of presses:

(1) Determine the sum of the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on intermittently-controllable work stations in bypass mode and the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on never-controlled work stations during the month, M_{Bi}.

(2) Determine the sum of the mass of all solvents, reducers, thinners, and other diluents which are applied on intermittently-controllable work stations in bypass mode and the mass of all solvents, reducers, thinners, and other diluents which are applied on never-controlled work stations during the month, M_{Bj}.

(3) Determine the sum of the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on intermittently-controllable work stations in controlled mode and the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on always-controlled work stations during the month, M_{Bj}.

(4) Determine the sum of the mass of all solvents, reducers, thinners, and other diluents which are applied on intermittently-controllable work stations in controlled mode and the mass of all solvents, reducers, thinners, and other diluents which are applied on always-controlled work stations during the month, M_{Cj}.

(5) For each press or group of presses for which the owner or operator uses the provisions of paragraph (f)(1)(ii) of this section, the owner or operator shall calculate the organic HAP emitted during the month using Equation 18.

$$H = \left[\sum_{i=1}^{p} M_{Ci}C_{hi} + \sum_{j=1}^{q} M_{Cj}C_{hj}\right]\left[1 - \frac{M_{vr}}{\sum_{i=1}^{p} M_{Ci}C_{vi} + \sum_{j=1}^{q} M_{Cj}}\right] + \left[\sum_{i=1}^{p} M_{Bi}C_{hi} + \sum_{j=1}^{q} M_{Bj}C_{hj}\right] \quad \text{Eq 18}$$

(6) For each press or group of presses for which the owner or operator uses the provisions of paragraphs (f)(2)(ii)(B), (f)(3)(iii)(B), or (f)(4)(ii)(B) of this section, the owner or operator shall calculate the organic HAP emitted during the month using Equation (19).

$$H = \left[\sum_{i=1}^{p} M_{Ci}C_{hi} + \sum_{j=1}^{q} M_{Cj}C_{hj}\right]\left[1 - \left(\frac{E}{100}\,\frac{F}{100}\right)\right] + \left[\sum_{i=1}^{p} M_{Bi}C_{hi} + \sum_{j=1}^{q} M_{Bj}C_{hj}\right] \quad \text{Eq 19}$$

(h) If the affected source operates more than one capture system or more than one control device, and has no never-controlled work stations and no intermittently-controllable work stations, then the affected source is in compliance with the 95 percent overall organic HAP control efficiency requirement for the month if for each press or

group of presses controlled by a common control device:

(1) The volatile matter collection and recovery efficiency, R_v, as determined by paragraphs (c)(1)(i), (c)(1)(iii), and (c)(1)(v)–(vii) of this section is equal to or greater than 95 percent, or

(2) The overall organic HAP control efficiency as determined by paragraphs (c)(2)(iii) and (c)(2)(v)–(vii) of this section for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period, or

(3) The overall organic HAP control efficiency as determined by paragraphs (d)(1)(i)–(iii) and (d)(1)(x) of this section for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent, the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three hour period, and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29801, May 24, 2006]

§ 63.826 Compliance dates.

(a) The compliance date for an owner or operator of an existing affected source subject to the provisions of this subpart is May 30, 1999.

(b) The compliance date for an owner or operator of a new affected source subject to the provisions of this subpart is immediately upon start-up of the affected source, or May 30, 1996, whichever is later.

(c) Affected sources which have undergone reconstruction are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the affected source has been reconstructed. Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs.

§ 63.827 Performance test methods.

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. 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.

(a) An owner or operator using a control device to comply with the requirements of §§ 63.824–63.825 is not required to conduct an initial performance test to demonstrate compliance if one or more of the criteria in paragraphs (a)(1) through (a)(3) of this section are met:

(1) A control device that is in operation prior to May 30, 1996, does not need to be tested if

(i) It is equipped with continuous emission monitors for determining total organic volatile matter concentration and the volumetric gas flow rate, and capture efficiency has been determined in accordance with the requirements of this subpart, such that an overall organic HAP control efficiency can be calculated, and

(ii) The continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.824(b)(1)(ii), § 63.825(b)(2)(ii), § 63.825(c)(2), or § 63.825(d)(2), as applicable, and § 63.828, or

(2) The owner or operator has met the requirements of either § 63.7(e)(2)(iv) or § 63.7(h), or

(3) The control device is a solvent recovery system and the owner or operator chooses to comply by means of a monthly liquid-liquid material balance.

(b) Determination of the weight fraction organic HAP of inks, coatings, varnishes, adhesives, primers, solvents,

thinners, reducers, diluents, and other materials used by a publication rotogravure affected source shall be conducted according to paragraph (b)(1) of this section. Determination of the weight fraction organic HAP of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, diluents, and other materials applied by a product and packaging rotogravure or wide-web flexographic printing affected source shall be conducted according to paragraph (b)(2) of this section. If the weight fraction organic HAP values are not determined using the procedures in paragraphs (b)(1) or (b)(2) of this section, the owner or operator must submit an alternative test method for determining their values for approval by the Administrator in accordance with § 63.7(f). The recovery efficiency of the test method must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.

(1) Each owner or operator of a publication rotogravure affected source shall determine the weight fraction organic HAP of each ink, coating, varnish, adhesive, primer, solvent, and other material used by following one of the procedures in paragraphs (b)(1)(i) through (iii) of this section:

(i) The owner or operator may test the material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the owner or operator of the affected source, the supplier of the material, or an independent third party. The organic HAP content determined by Method 311 must be calculated according to the criteria and procedures in paragraphs (b)(1)(i)(A) through (C) of this section.

(A) Include each organic HAP determined to be present at greater than or equal to 0.1 weight percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds.

(B) Express the weight fraction of each organic HAP included according to paragraph (b)(1)(i)(A) of this section as a value truncated to four places after the decimal point (for example, 0.3791).

(C) Calculate the total weight fraction of organic HAP in the tested material by summing the weight fraction of each organic HAP included according to paragraph (b)(1)(i)(A) of this section and truncating the result to three places after the decimal point (for example, 0.763).

(ii) The owner or operator may determine the weight fraction volatile matter of the material in accordance with § 63.827(c)(1) and use this value for the weight fraction organic HAP for all compliance purposes.

(iii) The owner or operator may use formulation data to determine the weight fraction organic HAP of a material. Formulation data may be provided to the owner or operator on a CPDS by the supplier of the material or an independent third party. Formulation data may be used provided that the weight fraction organic HAP is calculated according to the criteria and procedures in paragraphs (b)(1)(iii)(A) through (D) of this section. In the event of an inconsistency between the formulation data and the result of Method 311 of appendix A of this part, where the test result is higher, the Method 311 data will take precedence unless, after consultation, the owner or operator can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(A) For each raw material used in making the material, include each organic HAP present in that raw material at greater than or equal to 0.1 weight percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds. The weight fraction of each such organic HAP in each raw material must be determined by Method 311 of appendix A of this part, by an alternate method approved by the Administrator, or from a CPDS provided by the raw material supplier or an independent third party. The weight fraction of each such organic HAP in each raw material must be expressed as a value truncated to four places after the decimal point (for example, 0.1291).

(B) For each raw material used in making the material, the weight fraction contribution of each organic HAP,

which is included according to paragraph (b)(1)(iii)(A) of this section, in that raw material to the weight fraction organic HAP of the material is calculated by multiplying the weight fraction, truncated to four places after the decimal point (for example, 0.1291), of that organic HAP in that raw material times the weight fraction of that raw material, truncated to four places after the decimal point (for example, 0.2246), in the material. The product of each such multiplication is to be truncated to four places after the decimal point (for example, 0.1291 times 0.2246 yields 0.02899586 which truncates to 0.0289).

(C) For each organic HAP which is included according to paragraph (b)(1)(iii)(A) of this section, the total weight fraction of that organic HAP in the material is calculated by adding the weight fraction contribution of that organic HAP from each raw material in which that organic HAP is included according to paragraph (b)(1)(iii)(A) of this section. The sum of each such addition must be expressed to four places after the decimal point.

(D) The total weight fraction of organic HAP in the material is the sum of the counted individual organic HAP weight fractions. This sum must be truncated to three places after the decimal point (for example, 0.763).

(2) Each owner or operator of a product and packaging rotogravure or wide-web flexographic printing affected source shall determine the organic HAP weight fraction of each ink, coating, varnish, adhesive, primer, solvent, and other material applied by following one of the procedures in paragraphs (b)(2)(i) through (iii) of this section:

(i) The owner or operator may test the material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the owner or operator of the affected source, the supplier of the material, or an independent third party. The organic HAP content determined by Method 311 must be calculated according to the criteria and procedures in paragraphs (b)(2)(i)(A) through (C) of this section.

(A) Include each organic HAP determined to be present at greater than or equal to 0.1 weight percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds.

(B) Express the weight fraction of each organic HAP included according to paragraph (b)(2)(i)(A) of this section as a value truncated to four places after the decimal point (for example, 0.3791).

(C) Calculate the total weight fraction of organic HAP in the tested material by summing the weight fraction of each organic HAP included according to paragraph (b)(2)(i)(A) of this section and truncating the result to three places after the decimal point (for example, 0.763).

(ii) The owner or operator may determine the weight fraction volatile matter of the material in accordance with § 63.827(c)(2) and use this value for the weight fraction organic HAP for all compliance purposes.

(iii) The owner or operator may use formulation data to determine the weight fraction organic HAP of a material. Formulation data may be provided to the owner or operator on a CPDS by the supplier of the material or an independent third party. Formulation data may be used provided that the weight fraction organic HAP is calculated according to the criteria and procedures in paragraphs (b)(2)(iii)(A) through (D) of this section. In the event of an inconsistency between the formulation data and the result of Method 311 of appendix A of this part, where the test result is higher, the Method 311 data will take precedence unless, after consultation, the owner or operator can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(A) For each raw material used in making the material, include each organic HAP present in that raw material at greater than or equal to 0.1 weight percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds. The weight fraction of each such organic HAP in each raw material must be determined by Method 311 of appendix A of this part, by an

alternate method approved by the Administrator, or from a CPDS provided by the raw material supplier or an independent third party. The weight fraction of each such organic HAP in each raw material must be expressed as a value truncated to four places after the decimal point (for example, 0.1291).

(B) For each raw material used in making the material, the weight fraction contribution of each organic HAP, which is included according to paragraph (b)(2)(iii)(A) of this section, in that raw material to the weight fraction organic HAP of the material is calculated by multiplying the weight fraction, truncated to four places after the decimal point (for example, 0.1291), of that organic HAP in that raw material times the weight fraction of that raw material, truncated to four places after the decimal point (for example, 0.2246), in the material. The product of each such multiplication is truncated to four places after the decimal point (for example, 0.1291 times 0.2246 yields 0.02899586 which truncates to 0.0289).

(C) For each organic HAP which is included according to paragraph (b)(2)(iii)(A) of this section, the total weight fraction of that organic HAP in the material is calculated by adding the weight fraction contribution of that organic HAP from each raw material in which that organic HAP is included according to paragraph (b)(2)(iii)(A) of this section. The sum of each such addition must be expressed to four places after the decimal point.

(D) The total weight fraction of organic HAP in the material is the sum of the counted individual organic HAP weight fractions. This sum is to be truncated to three places after the decimal point (for example, 0.763).

(c) Determination of the weight fraction volatile matter content of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, diluents, and other materials used by a publication rotogravure affected source shall be conducted according to paragraph (c)(1) of this section. Determination of the weight fraction volatile matter content and weight fraction solids content of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, diluents, and other materials applied by a product and packaging rotogravure or wide-web flexographic printing affected source shall be conducted according to paragraph (c)(2) of this section.

(1) Each owner or operator of a publication rotogravure affected source shall determine the volatile matter weight fraction of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, and other material used by following the procedures in paragraph (b)(1)(i) of this section, or by using formulation data as described in paragraph (c)(3) of this section.

(i) Determine the volatile matter weight fraction of the material using Method 24A of 40 CFR part 60, appendix A. The Method 24A determination may be performed by the owner or operator of the affected source, the supplier of the material, or an independent third party. The Method 24A result shall be truncated to three places after the decimal point (for example, 0.763). If these values cannot be determined using Method 24A, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator.

(2) Each owner or operator of a product and packaging rotogravure or wide-web flexographic printing affected source shall determine the volatile matter weight fraction and solids weight fraction of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, and other material applied by following the procedures in paragraphs (b)(2)(i) and (ii) of this section, or by using formulation data as described in paragraph (c)(3) of this section.

(i) Determine the volatile matter weight fraction of the material using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the owner or operator of the affected source, the supplier of the material, or an independent third party. The Method 24 result shall be truncated to three places after the decimal point (for example, 0.763). If these values cannot be determined using Method 24, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator.

(ii) Calculate the solids weight fraction Method 24 result by subtracting

the volatile matter weight fraction Method 24 result from 1.000. This calculation may be performed by the owner or operator, the supplier of the material, or an independent third party.

(3) The owner or operator may use formulation data to determine the volatile matter weight fraction or solids weight fraction of a material. Formulation data may be provided to the owner or operator on a CPDS by the supplier of the material or an independent third party. The volatile matter weight fraction and solids weight fraction shall be truncated to three places after the decimal point (for example, 0.763). In the event of any inconsistency between the formulation data and the result of Method 24 or Method 24A of 40 CFR part 60, appendix A, where the test result for volatile matter weight fraction is higher or the test result for solids weight fraction is lower, the applicable test method data will take precedence unless, after consultation, the owner or operator can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) A performance test of a control device to determine destruction efficiency for the purpose of meeting the requirements of §§ 63.824–63.825 shall be conducted by the owner or operator in accordance with the following:

(1) An initial performance test to establish the destruction efficiency of an oxidizer and the associated combustion zone temperature for a thermal oxidizer and the associated catalyst bed inlet temperature for a catalytic oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(i) Method 1 or 1A of 40 CFR part 60, appendix A is used for sample and velocity traverses to determine sampling locations.

(ii) Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A is used to determine gas volumetric flow rate.

(iii) Method 3 of 40 CFR part 60, appendix A is used for gas analysis to determine dry molecular weight.

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

(v) Methods 2, 2A, 3, and 4 of 40 CFR part 60, appendix A shall be performed, as applicable, at least twice during each test period.

(vi) Method 25 of 40 CFR part 60, appendix A, shall be used to determine organic volatile matter concentration, except as provided in paragraphs (d)(1)(vi)(A) through (D) of this section. The owner or operator shall submit notice of the intended test method to the Administrator for approval along with notice of the performance test required under § 63.7(c). The same method must be used for both the inlet and outlet measurements. The owner or operator may use Method 25A of 40 CFR part 60, appendix A, if (A) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less as carbon is required to comply with the standards of §§ 63.824–63.825, or

(B) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less as carbon, or

(C) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less as carbon, regardless of inlet concentration, or

(D) The control device is not an oxidizer.

(vii) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply.

(viii) Organic volatile matter mass flow rates shall be determined using Equation 20:

$$M_f = Q_{sd} C_c [12.0] [0.0416] [10^{-6}] \qquad \text{Eq. 20}$$

Where:

M_f = Total organic volatile matter mass flow rate, kg/hour (h).

Q_{sd} = Volumetric flow rate of gases entering or exiting the control device, as determined according to § 63.827(d)(1)(ii), dry standard cubic meters (dscm)/h.

C_c = Concentration of organic compounds as carbon, ppmv.

12.0 = Molecular weight of carbon.

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(ix) Emission control device efficiency shall be determined using Equation 21:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}} \qquad \text{Eq 21}$$

(2) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the values recorded during the performance test shall be computed. For an oxidizer other than catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum combustion temperature. For a catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum gas temperature upstream of the catalyst bed. These minimum temperatures are the operating parameter values that demonstrate continuing compliance with the requirements of §§ 63.824–63.825.

(e) A performance test to determine the capture efficiency of each capture system venting organic emissions to a control device for the purpose of meeting the requirements of § 63.824(b)(1)(ii), § 63.824(b)(2), § 63.825(c)(2), § 63.825(d)(1)–(2), § 63.825(f)(2)–(4), or § 63.825(h)(2)–(3) shall be conducted by the owner or operator in accordance with the following:

(1) You may assume your capture efficiency equals 100 percent if your capture system is a permanent total enclosure (PTE). You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of Method 204 of 40 CFR part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device.

(2) You may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR part 51, appendix M. You may exclude never controlled work stations from such capture efficiency determinations.

(f) As an alternative to the procedures specified in § 63.827(e) an owner or operator required to conduct a capture efficiency test may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective (DQO) or the Lower Confidence Limit (LCL) approach as described in Appendix A of this subpart. The owner or operator may exclude never-controlled work stations from such capture efficiency determinations.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29802, May 24, 2006; 76 FR 22598, Apr. 21, 2011]

§ 63.828 Monitoring requirements.

(a) Following the date on which the initial performance test of a control device is completed, to demonstrate continuing compliance with the standard, the owner or operator shall monitor and inspect each control device required to comply with §§ 63.824–63.825 to ensure proper operation and maintenance by implementing the applicable requirements in paragraph (a)(1) through (a)(5) of this section.

(1) Owners or operators of product and packaging rotogravure or wide-web flexographic presses with intermittently-controllable work stations shall

follow one of the procedures in paragraphs (a)(1)(i) through (a)(1)(iv) of this section for each dryer associated with such a work station:

(i) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour, as well as every time the flow direction is changed. The flow control position indicator shall be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.

(ii) Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; a visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve or damper is maintained in the closed position and the exhaust stream is not diverted through the bypass line.

(iii) Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position. The monitoring system shall be inspected at least once every month to ensure that it is functioning properly.

(iv) Use an automatic shutdown system in which the press is stopped when flow is diverted away from the control device to any bypass line. The automatic system shall be inspected at least once every month to ensure that it is functioning properly.

(2) Compliance monitoring shall be subject to the provisions of paragraphs (a)(2)(i) and (a)(2)(ii) of this section, as applicable.

(i) All continuous emission monitors shall comply with performance specifications (PS) 8 or 9 of 40 CFR part 60, appendix B, as appropriate. The requirements of appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators must challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(ii) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturers specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the owner or operator chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

(3) An owner or operator complying with §§ 63.824–63.825 through continuous emission monitoring of a control device shall install, calibrate, operate, and maintain continuous emission monitors to measure total organic volatile matter concentration and volumetric gas flow rate in accordance with § 63.824(b)(1)(ii), § 63.825(b)(2)(ii), § 63.825(c)(2), or § 63.825(d)(2), as applicable.

(4) An owner or operator complying with the requirements of §§ 63.824–63.825 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter shall:

(i) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±1 °C, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(ii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in °C or ±1 °C, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

(5) An owner or operator complying with the requirements of §§ 63.824–63.825 through the use of a control device and demonstrating continuous compliance by monitoring an operating parameter

to ensure that the capture efficiency measured during the initial compliance test is maintained, shall:

(i) Submit to the Administrator with the compliance status report required by § 63.9(h) of the General Provisions, a plan that

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained,

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance, and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with §§ 63.824–63.825, and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(b) Any excursion from the required operating parameters which are monitored in accordance with paragraphs (a)(4) and (a)(5) of this section, unless otherwise excused, shall be considered a violation of the emission standard.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29804, May 24, 2006]

§ 63.829 Recordkeeping requirements.

(a) The recordkeeping provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart.

(b) Each owner or operator of an affected source subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section on a monthly basis in accordance with the requirements of § 63.10(b)(1) of this part:

(1) Records specified in § 63.10(b)(2) of this part, of all measurements needed to demonstrate compliance with this standard, such as continuous emission monitor data, control device and capture system operating parameter data, material usage, HAP usage, volatile matter usage, and solids usage that support data that the source is required to report.

(2) Records specified in § 63.10(b)(3) of this part for each applicability determination performed by the owner or operator in accordance with the requirements of § 63.820(a) of this subpart, and

(3) Records specified in § 63.10(c) of this part for each continuous monitoring system operated by the owner or operator in accordance with the requirements of § 63.828(a) of this subpart.

(c) Each owner or operator of an affected source subject to this subpart shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of §§ 63.824–63.825 of this subpart. The records shall be maintained in accordance with the requirements of § 63.10(b) of this part.

(d) The owner or operator of each facility which commits to the criteria of § 63.820(a)(2) shall maintain records of all required measurements and calculations needed to demonstrate compliance with these criteria, including the mass of all HAP containing materials used and the mass fraction of HAP present in each HAP containing material used, on a monthly basis.

(e) The owner or operator of each facility which meets the limits and criteria of § 63.821(b)(1) shall maintain records as required in paragraph (e)(1) of this section. The owner or operator of each facility which meets the limits and criteria of § 63.821(b)(2) shall maintain records as required in paragraph (e)(2) of this section. Owners or operators shall maintain these records for five years, and upon request, submit them to the Administrator.

(1) For each facility which meets the criteria of § 63.821(b)(1), the owner or operator shall maintain records of the total mass of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

(2) For each facility which meets the criteria of § 63.821(b)(2), the owner or operator shall maintain records of the total mass and organic HAP content of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

(f) The owner or operator choosing to exclude from an affected source, a

product and packaging rotogravure or wide-web flexographic press which meets the limits and criteria of § 63.821(a)(2)(ii)(A) shall maintain the records specified in paragraphs (f)(1) and (f)(2) of this section for five years and submit them to the Administrator upon request:

(1) The total mass of each material applied each month on the press, including all inboard and outboard stations, and

(2) The total mass of each material applied each month on the press by product and packaging rotogravure or wide-web flexographic printing operations.

(g) Each owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment), air pollution control equipment, or monitoring equipment.

(h) Each owner or operator of an affected source subject to this subpart shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.823(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29804, May 24, 2006; 76 FR 22598, Apr. 21, 2011]

§ 63.830 Reporting requirements.

(a) The reporting provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart.

(b) Each owner or operator of an affected source subject to this subpart shall submit the reports specified in paragraphs (b)(1) through (b)(6) of this section to the Administrator:

(1) An initial notification required in § 63.9(b).

(i) Initial notifications for existing sources shall be submitted no later than one year before the compliance date specified in § 63.826(a), or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(ii) Initial notifications for new and reconstructed sources shall be submitted as required by § 63.9(b).

(iii) For the purpose of this subpart, a Title V or part 70 permit application may be used in lieu of the initial notification required under § 63.9(b), provided the same information is contained in the permit application as required by § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA.

(iv) Permit applications shall be submitted by the same due dates as those specified for the initial notifications.

(2) A Notification of Performance Tests specified in §§ 63.7 and 63.9(e) of this part. This notification, and the site-specific test plan required under § 63.7(c)(2) shall identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. The operating parameter identified in the site-specific test plan shall be considered to be approved unless explicitly disapproved, or unless comments received from the Administrator require monitoring of an alternate parameter.

(3) A Notification of Compliance Status specified in § 63.9(h) of this part.

(4) Performance test reports specified in § 63.10(d)(2) of this part.

(5) [Reserved]

(6) A summary report specified in § 63.10(e)(3) of this part shall be submitted on a semi-annual basis (i.e., once every 6-month period). These summary reports are required even if the affected source does not have any control devices or does not take the performance of any control devices into account in demonstrating compliance with the emission limitations in § 63.824 or § 63.825. In addition to a report of operating parameter exceedances as required by § 63.10(e)(3)(i), the summary report shall include, as applicable:

(i) Exceedances of the standards in §§ 63.824–63.825.

(ii) Exceedances of either of the criteria of § 63.820(a)(2).

(iii) Exceedances of the criterion of § 63.821(b)(1) and the criterion of § 63.821(b)(2) in the same month.

(iv) Exceedances of the criterion of § 63.821(a)(2)(ii)(A).

(v) The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.823(b), including actions taken to correct a malfunction.

(c)(1) As of January 1, 2012, and within 60 days after the date of completing each performance test, as defined in § 63.2 and as required in this subpart, you must submit performance test data, except opacity data, electronically to EPA's Central Data Exchange by using the ERT (see *http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(2) All reports required by this subpart not subject to the requirements in paragraph (c)(1) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraph (c)(1) of this section in paper format.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29804, May 24, 2006; 76 FR 22598, Apr. 21, 2011; 85 FR 73895, Nov. 19, 2020]

§ 63.831 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.820 through 63.821 and 63.823 through 63.826.

(2) Approval of alternatives to the test method for organic HAP content determination in § 63.827(b) and alternatives to the test method for volatile matter in § 63.827(c), and major alternatives to other test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

§§ 63.832–63.839 [Reserved]

TABLE 1 TO SUBPART KK OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KK

General provisions reference	Applicable to subpart KK	Comment
§ 63.1(a)(1)–(a)(4)	Yes.	
§ 63.1(a)(5)	No	Section reserved.
§ 63.1(a)(6)–(a)(8)	No.	
§ 63.1(a)(9)	No	Section reserved.
§ 63.1(a)(10)–(a)(14)	Yes.	

General provisions reference	Applicable to subpart KK	Comment
§63.1(b)(1)	No	Subpart KK specifies applicability.
§63.1(b)(2)–(b)(3)	Yes.	
§63.1(c)(1)	Yes.	
§63.1(c)(2)	No	Area sources are not subject to subpart KK.
§63.1(c)(3)	No	Section reserved.
§63.1(c)(4)	Yes.	
§63.1(c)(5)	No.	
§63.1(c)(6)	Yes.	
§63.1(d)	No	Section reserved.
§63.1(e)	Yes.	
§63.2	Yes	Additional definitions in subpart KK.
§63.3(a)–(c)	Yes.	
§63.4(a)(1)–(a)(3)	Yes.	
§63.4(a)(4)	No	Section reserved.
§63.4(a)(5)	Yes.	
§63.4(b)–(c)	Yes.	
§63.5(a)(1)–(a)(2)	Yes.	
§63.5(b)(1)	Yes.	
§63.5(b)(2)	No	Section reserved.
§63.5(b)(3)–(b)(6)	Yes.	
§63.5(c)	No	Section reserved.
§63.5(d)	Yes.	
§63.5(e)	Yes.	
§63.5(f)	Yes.	
§63.6(a)	Yes.	
§63.6(b)(1)–(b)(5)	Yes.	
§63.6(b)(6)	No	Section reserved.
§63.6(b)(7)	Yes.	
§63.6(c)(1)–(c)(2)	Yes.	
§63.6(c)(3)–(c)(4)	No	Sections reserved.
§63.6(c)(5)	Yes.	
§63.6(d)	No	Section reserved.
§63.6(e)(1)(i)	No	See 63.823(b) for general duty requirement. Any cross-reference to 63.6(e)(1)(i) in any other general provision incorporated by reference shall be treated as a cross-reference to 63.823(b).
§63.6(e)(1)(ii)	No.	
§63.6(e)(1)(iii)	Yes.	
§63.6(e)(2)	No	Section reserved.
§63.6(e)(3)	No.	
§63.6(f)(1)	No.	
§63.6(f)(2)–(f)(3)	Yes.	
§63.6(g)	Yes.	
§63.6(h)	No	Subpart KK does not require COMS.
§63.6(i)(1)–(i)(14)	Yes.	
§63.6(i)(15)	No	Section reserved.
§63.6(i)(16)	Yes.	
§63.6(j)	Yes.	
§63.7(a)–(d)	Yes.	
§63.7(e)(1)	No	See 63.827 introductory text. Any cross-reference to 63.7(e)(1) in any other general provision incorporated by reference shall be treated as a cross-reference to 63.827 introductory text.
§63.7(e)(2)–(e)(4)	Yes.	
§63.8(a)(1)–(a)(2)	Yes.	
§63.8(a)(3)	No	Section reserved.
§63.8(a)(4)	No	Subpart KK specifies the use of solvent recovery devices or oxidizers.
§63.8(b)	Yes.	
§63.8(c)(1)–(3)	Yes.	
§63.8(c)(4)	No	Subpart KK specifies CMS sampling requirements.
§63.8(c)(5)	No	Subpart KK does not require COMS.
§63.8(c)(6)–(c)(8)	Yes	Provisions for COMS are not applicable.
§63.8(d)(1)–(2)	Yes.	
§63.8(d)(3)	Yes, except for last sentence.	
§63.8(e)–(f)	Yes.	
§63.8(g)	No	Subpart KK specifies CMS data reduction requirements.
§63.9(a)	Yes.	
§63.9(b)(1)	Yes.	
§63.9(b)(2)	Yes	Initial notification submission date extended.
§63.9(b)(3)–(b)(5)	Yes.	
§63.9(c)–(e)	Yes.	
§63.9(f)	No	Subpart KK does not require opacity and visible emissions observations.

General provisions reference	Applicable to subpart KK	Comment
§63.9(g)	Yes	Provisions for COMS are not applicable.
§63.9(h)(1)–(h)(3)	Yes.	
§63.9(h)(4)	No	Section reserved.
§63.9(h)(5)–(h)(6)	Yes.	
§63.9(i)	Yes.	
§63.9(j)	Yes.	
§63.9(k)	Yes	Only as specified in 63.9(j).
§63.10(a)	Yes.	
§63.10(b)(1)	Yes.	
§63.10(b)(2)(i)	No.	
§63.10(b)(2)(ii)	No	See 63.829(g) for recordkeeping of occurrence and duration of malfunctions. See 63.829(h) for recordkeeping of actions taken during malfunction. Any cross-reference to 63.10(b)(2)(ii) in any other general provision incorporated by reference shall be treated as a cross-reference to 63.829(g).
§63.10(b)(2)(iii)	Yes.	
§63.10(b)(2)(iv)–(b)(2)(v)	No.	
§63.10(b)(2)(vi)–(b)(2)(xiv)	Yes.	
§63.10(b)(3)	Yes.	
§63.10(c)(1)	Yes.	
§63.10(c)(2)–(c)(4)	No	Sections reserved.
§63.10(c)(5)–(c)(8)	Yes.	
§63.10(c)(9)	No	Section reserved.
§63.10(c)(10)	No	See 63.830(b)(6)(v) for reporting malfunctions. Any cross-reference to 63.10(c)(10) in any other general provision incorporated by reference shall be treated as a cross-reference to 63.830(b)(6)(v).
§63.10(c)(11)	No	See 63.830(b)(6)(v) for reporting malfunctions. Any cross-reference to 63.10(c)(11) in any other general provision incorporated by reference shall be treated as a cross-reference to 63.830(b)(6)(v).
§63.10(c)(12)–(c)(14)	Yes.	
§63.10(c)(15)	No.	
§63.10(d)(1)–(d)(2)	Yes.	
§63.10(d)(3)	No	Subpart KK does not require opacity and visible emissions observations.
§63.10(d)(4)	Yes.	
§63.10(d)(5)	No.	
§63.10(e)	Yes	Provisions for COMS are not applicable.
§63.10(f)	Yes.	
§63.11	No	Subpart KK specifies the use of solvent recovery devices or oxidizers.
§63.12	Yes.	
§63.13	Yes.	
§63.14	Yes.	
§63.15	Yes.	

[61 FR 27140, May 30, 1996, as amended at 76 FR 22598, Apr. 21, 2011; 85 FR 73895, Nov. 19, 2020]

APPENDIX A TO SUBPART KK OF PART 63—DATA QUALITY OBJECTIVE AND LOWER CONFIDENCE LIMIT APPROACHES FOR ALTERNATIVE CAPTURE EFFICIENCY PROTOCOLS AND TEST METHODS

1. Introduction

1.1 Alternative capture efficiency (CE) protocols and test methods that satisfy the criteria of either the data quality objective (DQO) approach or the lower confidence limit (LCL) approach are acceptable under §63.827(f). The general criteria for alternative CE protocols and test methods to qualify under either the DQO or LCL approach are described in section 2. The DQO approach and criteria specific to the DQO approach are described in section 3. The LCL approach and criteria specific to the LCL approach are described in section 4. The recommended reporting for alternative CE protocols and test methods are presented in section 5. The recommended recordkeeping for alternative CE protocols and test methods are presented in section 6.

1.2 Although the Procedures L, G.1, G.2, F.1, and F.2 in §52.741 of part 52 were developed for TTE and BE testing, the same procedures can also be used in an alternative CE protocol. For example, a traditional liquid/gas mass balance CE protocol could employ Procedure L to measure liquid VOC input and Procedure G.1 to measure captured VOC.

2. General Criteria for DQO and LCL Approaches

2.1 The following general criteria must be met for an alternative capture efficiency protocol and test methods to qualify under the DQO or LCL approach.

2.2 An alternative CE protocol must consist of at least three valid test runs. Each test run must be at least 20 minutes long. No test run can be longer than 24 hours.

2.3 All test runs must be separate and independent. For example, liquid VOC input and output must be determined independently for each run. The final liquid VOC sample from one run cannot be the initial sample for another run. In addition, liquid input for an entire day cannot be apportioned among test runs based on production.

2.4 Composite liquid samples cannot be used to obtain an ''average composition'' for a test run. For example, separate initial and final coating samples must be taken and analyzed for each run; initial and final samples cannot be combined prior to analysis to derive an ''average composition'' for the test run.

2.5 All individual test runs that result in a CE of greater than 105 percent are invalid and must be discarded.

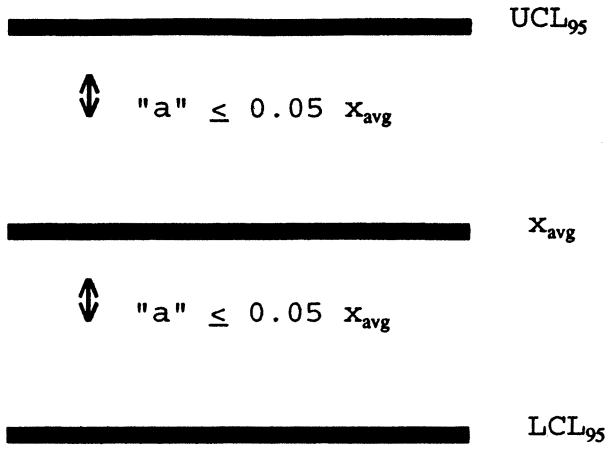
2.6 If the source can demonstrate to the regulatory agency that a test run should not be considered due to an identified testing or analysis error such as spillage of part of the sample during shipping or an upset or improper operating conditions that is not considered part of normal operation then the test result for that individual test run may be discarded. This limited exception allows sources to discard as ''outliers'' certain individual test runs without replacing them with a valid test run as long as the facility has at least three valid test runs to use when calculating its DQO or LCL. This exception is limited solely to test runs involving the types of errors identified above.

2.7 All valid test runs that are conducted must be included in the average CE determination. The individual test run CE results and average CE results cannot be truncated (i.e., 105 percent cannot be reported as 100 + percent) for purposes of meeting general or specific criteria for either the DQO or the LCL. If the DQO is satisfied and the average CE is greater than 100, then 100 percent CE must be considered the result of the test.

2.8 Alternative test methods for measuring VOC concentration must include a three-point calibration of the gas analysis instrument in the expected concentration range.

3. Data Quality Objective Approach

3.1 The purpose of the DQO is to allow sources to use alternative CE protocols and test methods while ensuring reasonable precision consistent with pertinent requirements of the Clean Air Act. In addition to the general criteria described in section 2, the specific DQO criterion is that the width of the two-sided 95 percent confidence interval of the mean measured value must be less than or equal to 10 percent of the mean measured value (see Figure 1). This ensures that 95 percent of the time, when the DQO is met, the actual CE value will be ±5 percent of the mean measured value (assuming that the test protocol is unbiased).



3.2 The DQO calculation is made as follows using Equations 1 and 2:

$$P = \left[\frac{a}{x_{avg}}\right]100 \qquad \text{Eq. 1}$$

$$a = \frac{t_{0.975}s}{\sqrt{n}} \qquad \text{Eq. 2}$$

Where:

a = Distance from the average measured CE value to the endpoints of the 95-percent (two-sided) confidence interval for the measured value.

n = Number of valid test runs.

P = DQO indicator statistic, distance from the average measured CE value to the endpoints of the 95-percent (two-sided) confidence interval, expressed as a percent of the average measured CE value.

s = Sample standard deviation.

$t_{0.975}$ = t-value at the 95-percent (two-sided) confidence level (see Table A–1).

x_{avg} = Average measured CE value (calculated from all valid test runs).

x_i = The CE value calculated from the ith test run.

TABLE A–1—t-VALUES

Number of valid test runs, n	$t_{0.975}$	$t_{0.90}$
1 or 2	N/A	N/A
3	4.303	1.886
4	3.182	1.638
5	2.776	1.533
6	2.571	1.476
7	2.447	1.440
8	2.365	1.415
9	2.306	1.397
10	2.262	1.383
11	2.228	1.372
12	2.201	1.363
13	2.179	1.356
14	2.160	1.350
15	2.145	1.345
16	2.131	1.341
17	2.120	1.337
18	2.110	1.333
19	2.101	1.330
20	2.093	1.328
21	2.086	1.325

3.3 The sample standard deviation and average CE value are calculated using Equations 3 and 4 as follows:

$$s = \left[\frac{\sum_{i=1}^{n}\left(x_i - x_{avg}\right)^2}{n-1}\right]^{0.5} \qquad \text{Eq 3}$$

$$x_{avg} = \frac{\sum_{i=1}^{n} x_i}{n} \qquad \text{Eq 4}$$

3.4 The DQO criteria are achieved when all of the general criteria in section 2 are achieved and P ≤5 percent (i.e., the specific DQO criterion is achieved). In order to meet this objective, facilities may have to conduct more than three test runs. Examples of calculating P, given a finite number of test runs, are shown below. (For purposes of this example it is assumed that all of the general criteria are met.)

3.5 Facility A conducted a CE test using a traditional liquid/gas mass balance and submitted the following results and the calculations shown in Equations 5 and 6:

Run	CE
1	96.1
2	105.0
3	101.2

Therefore:

n = 3

$t_{0.975}$ = 4.30

x_{avg} = 100.8

s = 4.51

$$a = \frac{(4.30)(4.51)}{\sqrt{n}} = 11.20 \qquad \text{Eq 5}$$

$$P = \frac{11.2}{100.8}100 = 11.11 \qquad \text{Eq 6}$$

3.6 Since the facility did not meet the specific DQO criterion, they ran three more test runs.

Run	CE
4	93.2
5	96.2
6	87.6

3.7 The calculations for Runs 1–6 are made as follows using Equations 7 and 8:

n = 6

$t_{0.975}$ = 2.57

x_{avg} = 96.6

s = 6.11

$$a = \frac{(2.57)(6.11)}{\sqrt{6}} = 6.41 \qquad \text{Eq 7}$$

$$P = \frac{6.41}{96.6}100 = 6.64 \qquad \text{Eq 8}$$

3.8 The facility still did not meet the specific DQO criterion. They ran three more test runs with the following results:

Run	CE
7	92.9
8	98.3
9	91.0

3.9 The calculations for Runs 1–9 are made as follows using Equations 9 and 10:
n = 9
$t_{0.975}$ = 2.31
x_{avg} = 95.7
s = 5.33

$$a = \frac{(2.31)(5.33)}{\sqrt{9}} = 4.10 \qquad \text{Eq 9}$$

$$P = \frac{4.10}{95.7}100 = 4.28 \qquad \text{Eq 10}$$

3.10 Based on these results, the specific DQO criterion is satisfied. Since all of the general criteria were also satisfied, the average CE from the nine test runs can be used to determine compliance.

4. Lower Confidence Limit Approach

4.1 The purpose of the LCL approach is to provide sources, that may be performing much better than their applicable regulatory requirement, a screening option by which they can demonstrate compliance. The approach uses less precise methods and avoids additional test runs which might otherwise be needed to meet the specific DQO criterion while still being assured of correctly demonstrating compliance. It is designed to reduce ''false positive'' or so called ''Type II errors'' which may erroneously indicate compliance where more variable test methods are employed. Because it encourages CE performance greater than that required in exchange for reduced compliance demonstration burden, the sources that successfully use the LCL approach could produce emission reductions beyond allowable emissions. Thus, it could provide additional benefits to the environment as well.

4.2 The LCL approach compares the 80 percent (two-sided) LCL for the mean measured CE value to the applicable CE regulatory requirement. In addition to the general criteria described in section 2, the specific LCL criteria are that either the LCL be greater than or equal to the applicable CE regulatory requirement or that the specific DQO criterion is met. A more detailed description of the LCL approach follows:

4.3 A source conducts an initial series of at least three runs. The owner or operator may choose to conduct additional test runs during the initial test if desired.

4.4 If all of the general criteria are met and the specific DQO criterion is met, then the average CE value is used to determine compliance.

4.5 If the data meet all of the general criteria, but do not meet the specific DQO criterion; and the average CE, using all valid test runs, is above 100 percent then the test sequence cannot be used to calculate the LCL. At this point the facility has the option of (a) conducting more test runs in hopes of meeting the DQO or of bringing the average CE for all test runs below 100 percent so the LCL can be used or (b) discarding all previous test data and retesting.

4.6 The purpose of the requirement in Section 4.5 is to protect against protocols and test methods which may be inherently biased high. This is important because it is impossible to have an actual CE greater than 100 percent and the LCL approach only looks at the lower end variability of the test results. This is different from the DQO which allows average CE values up to 105 percent because the DQO sets both upper and lower limits on test variability.

4.7 If at any point during testing the results meet the DQO, the average CE can be used for demonstrating compliance with the applicable regulatory requirement. Similarly, if the average CE is below 100 percent then the LCL can be used for demonstrating compliance with the applicable regulatory requirement without regard to the DQO.

4.8 The LCL is calculated at an 80 percent (two-sided) confidence level as follows using Equation 11:

$$LC_l = x_{avg} - \frac{t_{0.90}s}{\sqrt{n}} \qquad \text{Eq. 11}$$

Where:
LC_l = LCL at an 80-percent (two-sided) confidence level.
n = Number of valid test runs.
s = Sample standard deviation.
$t_{0.90}$ = t-value at the 80-percent (two-sided) confidence level (see Table A–1).
x_{avg} = Average measured CE value (calculated from all valid test runs).

4.9 The resulting LC_l is compared to the applicable CE regulatory requirement. If LC_l exceeds (i.e., is higher than) the applicable regulatory requirement, then a facility is in initial compliance. However, if the LC_l is below the CE requirement, then the facility must conduct additional test runs. After this point the test results will be evaluated not only looking at the LCL, but also the DQO of ±5 percent of the mean at a 95 percent confidence level. If the test results with the additional test runs meet the DQO before the LCL exceeds the applicable CE regulatory requirement, then the average CE value will be compared to the applicable CE regulatory requirement for determination of compliance.

4.10 If there is no specific CE requirement in the applicable regulation, then the applicable CE regulatory requirement is determined based on the applicable regulation and an acceptable destruction efficiency test. If the applicable regulation requires daily compliance and the latest CE compliance demonstration was made using the LCL approach, then the calculated LC_l will be the highest CE value which a facility is allowed to claim until another CE demonstration test is conducted. This last requirement is necessary to assure both sufficiently reliable test results in all circumstances and the potential environmental benefits referenced above.

4.11 An example of calculating the LCL is shown below. Facility B's applicable regulatory requirement is 85 percent CE. Facility B conducted a CE test using a traditional liquid/gas mass balance and submitted the following results and the calculation shown in Equation 12:

Run	CE
1	94.2
2	97.6
3	90.5

Therefore:

n = 3

$t_{0.90}$ = 1.886

x_{avg} = 94.1

s = 3.55

$$LC_l = 94.1 - \frac{(1.886)(3.55)}{\sqrt{3}} = 90.23 \qquad \text{Eq 12}$$

4.12 Since the LC_l of 90.23 percent is above the applicable regulatory requirement of 85 percent then the facility is in compliance. The facility must continue to accept the LC_l of 90.23 percent as its CE value until a new series of valid tests is conducted. (The data generated by Facility B do not meet the specific DQO criterion.)

5. Recommended Reporting for Alternative CE Protocols

5.1 If a facility chooses to use alternative CE protocols and test methods that satisfy either the DQO or LCL and the additional criteria in section 4., the following information should be submitted with each test report to the appropriate regulatory agency:

1. A copy of all alternative test methods, including any changes to the EPA reference methods, QA/QC procedures and calibration procedures.

2. A table with information on each liquid sample, including the sample identification, where and when the sample was taken, and the VOC content of the sample;

3. The coating usage for each test run (for protocols in which the liquid VOC input is to be determined);

4. The quantity of captured VOC measured for each test run;

5. The CE calculations and results for each test run;

6. The DQO or LCL calculations and results; and

7. The QA/QC results, including information on calibrations (e.g., how often the instruments were calibrated, the calibration results, and information on calibration gases, if applicable).

6. Recommended Recordkeeping for Alternative CE Protocols.

6.1 A record should be kept at the facility of all raw data recorded during the test in a suitable form for submittal to the appropriate regulatory authority upon request.

[61 FR 27140, May 30, 1996, as amended at 71 FR 29804, May 24, 2006]

Subpart LL—National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants

SOURCE: 62 FR 52407, Oct. 7, 1997, unless otherwise noted.

§ 63.840 Applicability.

(a) Except as provided in paragraph (b) of this section, the requirements of this subpart apply to the owner or operator of each new or existing pitch storage tank, potline, paste production plant and anode bake furnace associated with primary aluminum production and located at a major source as defined in § 63.2.

(b) The requirements of this subpart do not apply to any existing anode bake furnace that is not located on the same site as a primary aluminum reduction plant. The owner or operator shall comply with the State MACT determination established by the applicable regulatory authority.

(c) An owner or operator of an affected facility (potroom group or anode bake furnace) under § 60.190 of this chapter may elect to comply with either the requirements of § 63.845 of this subpart or the requirements of subpart S of part 60 of this chapter.

[62 FR 52407, Oct. 7, 1997, as amended at 80 FR 62414, Oct. 15, 2015]

§ 63.841 [Reserved]

§ 63.842 Definitions.

Terms used in this subpart are defined in the Clean Air Act as amended (the Act), in § 63.2, or in this section as follows:

Anode bake cycle means the period during which the regularly repeated sequence of loading, preheating, firing, cooling, and removing anodes from all sections within an anode bake furnace occurs one time.

Anode bake furnace means an oven in which the formed green anodes are baked for use in a prebake process. This definition includes multiple anode bake furnaces controlled by a common control device (bake furnaces controlled by a common control device are considered to be one source).

Center-worked prebake (CWPB) process means a method of primary aluminum reduction using the prebake process in which the alumina feed is added down the center of the reduction cell.

Center-worked prebake one (CWPB1) means all existing center-worked prebake potlines not defined as center-worked prebake two (CWPB2) or center-worked prebake three (CWPB3) potlines.

Center-worked prebake two (CWPB2) means all existing center-worked prebake potlines located at Alcoa in Rockdale, Texas; Kaiser Aluminum in Mead, Washington; Ormet Corporation in Hannibal, Ohio; Ravenswood Aluminum in Ravenswood, West Virginia; Reynolds Metals in Troutdale, Oregon; and Vanalco Aluminum in Vancouver, Washington.

Center-worked prebake three (CWPB3) means all existing center-worked prebake potlines that produce very high purity aluminum, have a wet scrubber for the primary control system, and are located at the NSA primary aluminum plant in Hawesville, Kentucky.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

High purity aluminum means aluminum produced with an average purity level of at least 99.9 percent.

Modified potroom group means an existing potroom group to which any physical change in, or change in the method of operation of, results in an increase in the amount of total fluoride emitted into the atmosphere by that potroom group.

Operating day means a 24-hour period between 12 midnight and the following midnight during which an affected source operates at any time. It is not necessary for operations to occur for the entire 24-hour period.

Particulate matter (PM) means, for the purposes of this subpart, emissions of particulate matter that serve as a measure of total particulate emissions and as a surrogate for metal hazardous air pollutants contained in the particulates, including but not limited to: Antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel and selenium.

Paste production plant means the processes whereby calcined petroleum coke, coal tar pitch (hard or liquid) and/or other materials are mixed, transferred and formed into briquettes or paste for vertical stud Soderberg (VSS) processes or into green anodes for a prebake process. This definition includes all operations from initial mixing to final forming (*i.e.*, briquettes, paste, green anodes) within the paste production plant, including conveyors and units managing heated liquid pitch.

Pitch storage tank means any fixed roof tank that is used to store liquid pitch that is not part of the paste production plant.

Polychlorinated biphenyl (PCB) means any or all of the 209 possible chlorinated biphenyl isomers.

Polycyclic organic matter (POM) means organic matter extractable by methylene chloride as determined by Method 315 in appendix A to this part or by an approved alternative method.

Potline means a single, discrete group of electrolytic reduction cells electrically connected in series, in which alumina is reduced to form aluminum.

Potroom means a building unit that houses a group of electrolytic cells in which aluminum is produced.

Potroom group means an uncontrolled potroom, a potroom that is controlled individually, or a group of potrooms or potroom segments ducted to a common control system.

Prebake process means a method of primary aluminum reduction that uses an anode that was baked in an anode bake furnace, which is introduced into the top of the reduction cell and consumed as part of the reduction process.

Primary aluminum reduction plant means any facility manufacturing aluminum by electrolytic reduction.

Primary control system means the equipment used to capture the gases and particulate matter evacuated directly from the reduction cell and the emission control device(s) used to remove pollutants prior to discharge of the cleaned gas to the atmosphere. A roof scrubber is not part of the primary control system.

Primary emissions means the emissions discharged from the primary control system.

Reconstructed potroom group means an existing potroom group for which the components are replaced to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new potroom group, and for which it is technologically and economically feasible to meet the applicable emission limits for total fluoride set forth in this subpart.

Reconstruction means the replacement of components of a source to such an extent that:

(1) All of the major components of the source are replaced (for example, the major components of a potline include the raw material handling system, reduction cells, superstructure, hooding, ductwork, etc.); and

(2) It is technologically and economically feasible for the reconstructed source to meet the standards for new sources established in this subpart.

Roof monitor means that portion of the roof of a potroom building where gases not captured at the cell exit from the potroom.

Secondary emissions means the fugitive emissions that are not captured and controlled by the primary control system and that escape through the roof monitor or through roof scrubbers.

Side-worked prebake (SWPB) process means a method of primary aluminum reduction using the prebake process, in which the alumina is added along the sides of the reduction cell.

Soderberg process means a method of primary aluminum reduction in which the anode paste mixture is baked in the reduction pot by the heat resulting from the electrolytic process.

Startup of an anode bake furnace means the process of initiating heating to the anode bake furnace. The startup or re-start of the furnace begins when the heating begins. The startup or restart concludes at the start of the second anode bake cycle if the furnace was at ambient temperature upon startup or when the anode bake cycle resumes if the furnace was not at ambient temperature.

Total fluorides (TF) means elemental fluorine and all fluoride compounds as measured by Methods 13A or 13B in appendix A to part 60 of this chapter or by an approved alternative method.

Toxicity equivalence (TEQ) means an international method of expressing toxicity equivalents for PCBs as defined in U.S. EPA, Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds, EPA/100/R–10/005 December 2010.

Vertical stud Soderberg two (VSS2) means all existing vertical stud Soderberg potlines located at Columbia Falls Aluminum in Columbia Falls, Montana.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66284, Nov. 2, 2005; 80 FR 62414, Oct. 15, 2015]

§ 63.843 Emission limits for existing sources.

(a) *Potlines.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF, POM, PM, nickel, arsenic or PCB in excess of the applicable limits in paragraphs (a)(1) through (6) of this section.

(1) *TF limits.* Emissions of TF shall not exceed:

(i) 0.95 kg/Mg (1.9 lb/ton) of aluminum produced for each CWPB1 potline;

(ii) 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline;

(iii) 1.25 kg/Mg (2.5 lb/ton) of aluminum produced for each CWPB3 potline;

(iv) 0.8 kg/Mg (1.6 lb/ton) of aluminum produced for each SWPB potline; and

(v) [Reserved]

(vi) 1.35 kg/Mg (2.7 lb/ton) of aluminum produced for each VSS2 potline.

(2) *POM limits.* Emissions of POM shall not exceed:

(i)—(ii) [Reserved]

(iii) 0.85 kg/Mg (1.9 lb/ton) of aluminum produced for each VSS2 potline;

(iv) 0.55 kg/Mg (1.1 lb/ton) of aluminum produced for each CWPB1 prebake potline;

(v) 6.0 kg/Mg (12 lb/ton) of aluminum produced for each CWPB2 prebake potline;

(vi) 1.4 kg/Mg (2.7 lb/ton) of aluminum produced for each CWPB3 prebake potline; and

(vii) 8.5 kg/Mg (17 lb/ton) of aluminum produced for each SWPB prebake potline.

(3) *PM limits.* Emissions of PM shall not exceed:

(i) 3.7 kg/Mg (7.4 lb/ton) of aluminum produced for each CWPB1 potline;

(ii) 5.5 kg/Mg (11 lb/ton) of aluminum produced for each CWPB2 potline;

(iii) 10 kg/Mg (20 lb/ton) of aluminum produced for each CWPB3 potline;

(iv) 2.45 kg/Mg (4.9 lb/ton) of aluminum produced for each SWPB potline; and

(v) 13 kg/Mg (26 lb/ton) of aluminum produced for each VSS2 potline.

(4) *Nickel limit.* Emissions of nickel shall not exceed 0.07 lb/ton of aluminum produced from each VSS2 potline at a primary aluminum reduction plant.

(5) *Arsenic limit.* Emissions of arsenic shall not exceed 0.006 lb/ton of aluminum produced from each VSS2 potline at a primary aluminum reduction plant.

(6) *PCB limit.* Emissions of PCB shall not exceed 2.0 μg toxicity equivalence (TEQ) per ton of aluminum produced from each VSS2 potline at a primary aluminum reduction plant.

(7) *Change in subcategory.* Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in this subpart for the original subcategory or the new subcategory, whichever is more stringent.

(b) *Paste production plants.* The owner or operator shall install, operate and maintain equipment to capture and control POM and PM emissions from each paste production plant.

(1) The emission capture system shall be installed and operated to meet the generally accepted engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in Chapters 3 and 5 of ''Industrial Ventilation: A Handbook of Recommended Practice'' (incorporated by reference; see § 63.14); and

(2) Captured emissions shall be routed through a closed system to a dry coke scrubber; or

(3) The owner or operator may submit a written request for use of an alternative control device to the applicable regulatory authority for review and approval. The request shall contain information and data demonstrating that the alternative control device achieves POM emissions less than 0.011 lb/ton of paste for plants with continuous mixers or POM emissions less than 0.024 lb/ton of paste for plants with batch mixers. The POM emission rate shall be determined by sampling using Method 315 in appendix A to this part.

(4) *PM limit.* Emissions of PM shall not exceed 0.041 kg/Mg (0.082 lb/ton) of paste.

(c) *Anode bake furnaces.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF, POM, PM or mercury in excess of the limits in paragraphs (c)(1) through (4) of this section.

(1) *TF limit.* Emissions of TF shall not exceed 0.10 kg/Mg (0.20 lb/ton) of green anode;

(2) *POM limit.* Emissions of POM shall not exceed 0.09 kg/Mg (0.18 lb/ton) of green anode;

(3) *PM limit.* Emissions of PM shall not exceed 0.10 kg/Mg (0.20 lb/ton) of green anode; and

(4) *Mercury limit.* Emissions of mercury shall not exceed 1.7 μg/dscm.

(d) *Pitch storage tanks.* Each pitch storage tank shall be equipped with an emission control system designed and operated to reduce inlet emissions of POM by 95 percent or greater.

(e) *COS limit.* Emissions of COS must not exceed 1.95 kg/Mg (3.9 lb/ton) of aluminum produced for each potline.

(f) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records and inspection of the source.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66284, Nov. 2, 2005; 80 FR 62415, Oct. 15, 2015]

§ 63.844 Emission limits for new or reconstructed sources.

(a) *Potlines.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF, POM, PM, nickel, arsenic or PCB in excess of the applicable limits in paragraphs (a)(1) through (6) of this section.

(1) *TF limit.* Emissions of TF shall not exceed 0.6 kg/Mg (1.2 lb/ton) of aluminum produced; and

(2) *POM limit.* Emissions of POM from potlines must not exceed 0.39 kg/Mg (0.77 lb/ton) of aluminum produced.

(3) *PM limit.* Emissions of PM from potlines must not exceed 2.45 kg/Mg (4.9 lb/ton) of aluminum produced.

(4) *Nickel limit.* Emissions of nickel shall not exceed 0.035 kg/Mg (0.07 lb/ton) of aluminum produced from each Soderberg potline at a primary aluminum reduction plant.

(5) *Arsenic limit.* Emissions of arsenic shall not exceed 0.003 kg/Mg (0.006 lb/ton) of aluminum produced from each Soderberg potline at a primary aluminum reduction plant.

(6) *PCB limit.* Emissions of PCB shall not exceed 2.0 μg TEQ/ton of aluminum produced from each Soderberg potline at a primary aluminum reduction plant.

(b) *Paste production plants.* (1) The owner or operator shall meet the requirements in § 63.843(b)(1) through (3) for existing paste production plants and shall not discharge or cause to be discharged into the atmosphere any emissions of PM in excess of the limit in paragraph (b)(2) of this section.

(2) Emissions of PM shall not exceed 0.0028 kg/Mg (0.0056 lb/ton) of green anode.

(c) *Anode bake furnaces.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF, PM, POM or mercury in excess of the limits in paragraphs (c)(1) through (4) of this section.

(1) *TF limit.* Emissions of TF shall not exceed 0.01 kg/Mg (0.02 lb/ton) of green anode;

(2) *POM limit.* Emissions of POM shall not exceed 0.025 kg/Mg (0.05 lb/ton) of green anode;

(3) *PM limit.* Emissions of PM shall not exceed 0.035 kg/Mg (0.07 lb/ton) of green anode; and

(4) *Mercury limit.* Emissions of mercury shall not exceed 1.7 μg/dscm.

(d) *Pitch storage tanks.* Each pitch storage tank shall be equipped with an emission control system designed and operated to reduce inlet emissions of POM by 95 percent or greater.

(e) *COS limit.* Emissions of COS must not exceed 1.55 kg/Mg (3.1 lb/ton) of aluminum produced for each potline.

(f) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on

information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records and inspection of the source.

[62 FR 52407, Oct. 7, 1997, as amended at 80 FR 62416, Oct. 15, 2015]

§ 63.845 Incorporation of new source performance standards for potroom groups.

(a) *Applicability.* The provisions in paragraphs (a) through (i) of this section shall apply to any Soderberg, CWPB2, and CWPB3 potline that adds a new potroom group to an existing potline or that is associated with a potroom group that meets the definition of ''modified potroom group'' or ''reconstructed potroom group.''

(1) The following shall not, by themselves, be considered to result in a potroom group modification:

(i) Maintenance, repair, and replacement that the applicable regulatory authority determines to be routine for the potroom group;

(ii) An increase in production rate of an existing potroom group, if that increase can be accomplished without a capital expenditure on that potroom group;

(iii) An increase in the hours of operation;

(iv) Use of an alternative fuel or raw material if, prior to the effective date of this subpart, the existing potroom group was designed to accommodate that alternative use;

(v) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system that the applicable regulatory authority determines to be less environmentally beneficial; and

(vi) The relocation or change in ownership of an existing potroom group.

(2) The provisions in paragraphs (a)(2)(i) through (a)(2)(iv) of this section apply when the applicable regulatory authority must determine if a potroom group meets the definition of reconstructed potroom group.

(i) ''Fixed capital cost'' means the capital needed to provide all the depreciable components.

(ii) If an owner or operator of an existing potroom group proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new potroom group, he/she shall notify the applicable regulatory authority of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(A) Name and address of the owner or operator;

(B) The location of the existing potroom group;

(C) A brief description of the existing potroom group and the components that are to be replaced;

(D) A description of the existing air pollution control equipment and the proposed air pollution control equipment;

(E) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new potroom group;

(F) The estimated life of the existing potroom group after the replacements; and

(G) A discussion of any economic or technical limitations the potroom group may have in complying with the applicable standards of performance after the proposed replacements.

(iii) The applicable regulatory authority will determine, within 30 days of the receipt of the notice required by paragraph (a)(2)(ii) of this section and any additional information he/she may reasonably require, whether the proposed replacement constitutes a reconstructed potroom group.

(iv) The applicable regulatory authority's determination under paragraph (a)(2)(iii) of this section shall be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new potroom group;

(B) The estimated life of the potroom group after the replacements compared

to the life of a comparable entirely new potroom group;

(C) The extent to which the components being replaced cause or contribute to the emissions from the potroom group; and

(D) Any economic or technical limitations on compliance with applicable standards of performance that are inherent in the proposed replacements.

(b) *Lower TF emission limit.* The owner or operator shall calculate a lower TF emission limit for any potline associated with the modified potroom group, reconstructed potroom group, or new potroom group using the following equation:

$$L_l = f_l \times L_{PG1} + (1 - f_l) \times L_{PL}$$

Where:

L_l = the lower TF emission limit in kg/Mg (lb/ton);

f_l = the fraction of the potline's total aluminum production capacity that is contained within all modified potroom groups, reconstructed potroom groups, and new potroom groups;

L_{PG1} = 0.95 kg/Mg (1.9 lb/ton) for prebake potlines and 1.0 kg/Mg (2.0 lb/ton) for Soderberg potlines; and

L_{PL} = the TF emission limit from § 63.843(a)(1) for the appropriate potline subcategory that would have otherwise applied to the potline.

(c) *Upper TF emission limit.* The owner or operator shall calculate an upper TF emission limit for any potline associated with the modified potroom group, reconstructed potroom group, or new potroom group using the following equation:

$$L_2 = f_l \times L_{PG2} + (1 - f_l) \times L_{PL}$$

Where:

L_2 = the upper TF emission limit in kg/Mg (lb/ton); and

L_{PG2} = 1.25 kg/Mg (2.5 lb/ton) for prebake potlines and 1.3 kg/Mg (2.6 lb/ton) for Soderberg potlines.

(d) *Recalculation.* The TF emission limits in paragraphs (b) and (c) of this section shall be recalculated each time a new potroom group is added to the potline and each time an additional potroom group meets the definition of ''modified potroom group'' or ''reconstructed potroom group.''

(e) *Emission limitation.* The owner or operator shall not discharge or cause to be discharged into the atmosphere emissions of TF from any potline associated with the modified potroom group, reconstructed potroom group, or new potroom group that exceed the lower emission limit calculated in paragraph (b) of this section, except that emissions less than the upper limit calculated in paragraph (c) of this section will be considered in compliance if the owner or operator demonstrates that exemplary operation and maintenance procedures were used with respect to the emission control system and that proper control equipment was operating at the potline during the performance test.

(f) *Report.* Within 30 days of any performance test that reveals emissions that fall between the lower limit calculated in paragraph (b) of this section and the upper limit calculated in paragraph (c) of this section, the owner or operator shall submit to the applicable regulatory authority a report indicating whether all necessary control devices were online and operating properly during the performance test, describing the operating and maintenance procedures followed, and setting forth any explanation for the excess emissions.

(g) *Procedures to determine TF emissions.* The owner or operator shall determine TF emissions for the potline using the following procedures:

(1) Determine the emission rate of TF in kg/Mg (lb/ton) from sampling secondary emissions and the primary control system for all new potroom groups, modified potroom groups, and reconstructed potroom groups using the procedures, equations, and test methods in §§ 63.847, 63.848, and 63.849.

(2) Determine the emission rate of TF in kg/Mg (lb/ton) from sampling secondary emissions and the primary control system for potroom groups or sections of potroom groups within the potline that are not new potroom groups, modified potroom groups, or reconstructed potroom groups according to paragraphs (g)(2)(i) or (g)(2)(ii) of this section.

(i) Determine the mass emission rate of TF in kg/Mg (lb/ton) from at least one potroom group within the potline that is not a new potroom group, modified potroom group, or reconstructed potroom group using the procedures,

equations, and test methods in §§ 63.847, 63.848, and 63.849, or

(ii) Use the results of the testing required by paragraph (g)(1) of this section to represent the entire potline based on a demonstration that the results are representative of the entire potline. Representativeness shall be based on showing that all of the potroom groups associated with the potline are substantially equivalent in terms of their structure, operability, type of emissions, volume of emissions, and concentration of emissions.

(3) Calculate the TF emissions for the potline in kg/Mg (lb/ton) based on the production-weighted average of the TF emission rates from paragraphs (g)(1) and (g)(2) of this section using the following equation:

$$E = f_l \times E_{PG1} + (1\text{-}f_l) \times E_{PL}$$

where:

E = the TF emission rate for the entire potline, kg/Mg (lb/ton);

f_l = the fraction of the potline's total aluminum production rate that is contained within all modified potroom groups, reconstructed potroom groups, and new potroom groups;

E_{PG1} = the TF emission rate from paragraph (g)(1) of this section for all modified potroom groups, reconstructed potroom groups, and new potroom groups, kg/Mg (lb/ton); and

E_{PL} = the TF emission rate for the balance of the potline from paragraph (g)(2) of this section, kg/Mg (lb/ton).

Compliance is demonstrated when TF emissions for the potline meet the requirements in paragraph (e) of this section.

(4) As an alternative to sampling as required in paragraphs (g)(1) and (g)(2) of this section, the owner or operator may perform representative sampling of the entire potline subject to the approval of the applicable regulatory authority. Such sampling shall provide coverage by the sampling equipment of both the new, modified, or reconstructed potroom group and the balance of the potline. The coverage for the new, modified, or reconstructed potroom group must meet the criteria specified in the reference methods in § 63.849. TF emissions shall be determined for the potline using the procedures, equations, and test methods in §§ 63.847, 63.848, and 63.849. Compliance is demonstrated when TF emissions for the potline meet the requirements in paragraph (e) of this section.

(h) *Opacity*. Except as provided in paragraph (i) of this section, the owner or operator shall not discharge or cause to be discharged into the atmosphere from the modified potroom group, reconstructed potroom group, or new potroom group any emissions of gases that exhibit 10 percent opacity or greater.

(i) *Alternative opacity limit*. An alternative opacity limit may be established in place of the opacity limit in paragraph (h) of this section using the following procedures:

(1) If the regulatory authority finds that a potline is in compliance with the applicable TF standard for which performance tests are conducted in accordance with the methods and procedures in § 63.849 but during the time such performance tests are being conducted fails to meet any applicable opacity standard, the regulatory authority shall notify and advise the owner or operator that he/she may petition the regulatory authority within 10 days of receipt of notification to make appropriate adjustment to the opacity standard.

(2) The regulatory authority will grant such a petition upon a demonstration by the owner or operator that the potroom group and associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the regulatory authority; and that the potroom group and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(3) As indicated by the performance and opacity tests, the regulatory authority will establish an opacity standard for any potroom group meeting the requirements in paragraphs (i)(1) and (i)(2) of this section such that the opacity standard could be met by the potroom group at all times during which the potline is meeting the TF emission limit.

(4) The alternative opacity limit established in paragraph (i)(3) of this section shall not be greater than 20 percent opacity.

§ 63.846 Emission averaging.

(a) *General.* The owner or operator of an existing potline or anode bake furnace in a State that does not choose to exclude emission averaging in the approved operating permit program may demonstrate compliance by emission averaging according to the procedures in this section.

(b) *Potlines.* The owner or operator may average emissions from potlines and demonstrate compliance with the limits in Tables 1 through 3 of this subpart using the procedures in paragraphs (b)(1) through (3) of this section.

(1) Semiannual average emissions of TF shall not exceed the applicable emission limit in Table 1 of this subpart. The emission rate shall be calculated based on the total primary and secondary emissions from all potlines comprising the averaging group over the period divided by the quantity of aluminum produced during the period, from all potlines comprising the averaging group. To determine compliance with the applicable emission limit in Table 1 of this subpart for TF emissions, the owner or operator shall determine the average emissions (in lb/ton) from each potline from at least three runs per potline semiannually for TF secondary emissions and at least three runs per potline primary control system each year using the procedures and methods in §§ 63.847 and 63.849. The owner or operator shall combine the results of secondary TF average emissions with the TF results for the primary control system and divide total emissions by total aluminum production.

(2) Semiannual average emissions of POM shall not exceed the applicable emission limit in Table 2 of this subpart. The emission rate shall be calculated based on the total primary and secondary emissions from all potlines comprising the averaging group over the period divided by the quantity of aluminum produced during the period, from all potlines comprising the averaging group. To determine compliance with the applicable emission limit in Table 2 of this subpart for POM emissions, the owner or operator shall determine the average emissions (in lb/ton) from each potline from at least three runs per potline semiannually for POM secondary emissions and at least three runs per potline primary control system each year for POM primary emissions using the procedures and methods in §§ 63.847 and 63.849. The owner or operator shall combine the results of secondary POM average emissions with the POM results for the primary control system and divide total emissions by total aluminum production.

(3) Semiannual average emissions of PM shall not exceed the applicable emission limit in Table 3 of this subpart. The emission rate shall be calculated based on the total primary and secondary emissions from all potlines comprising the potline group over the period divided by the quantity of aluminum produced during the period, from all potlines comprising the averaging group. To determine compliance with the applicable emission limit in Table 3 of this subpart for PM emissions, the owner or operator shall determine the average emissions (in lb/ton) from each potline from at least three runs per potline semiannually for PM secondary emissions and at least three runs per potline primary control system each year for PM primary emissions using the procedures and methods in §§ 63.847 and 63.849. The owner or operator shall combine the results of secondary PM average emissions with the PM results for the primary control system and divide total emissions by total aluminum production.

(c) *Anode bake furnaces.* The owner or operator may average TF emissions from anode bake furnaces and demonstrate compliance with the limits in Table 4 of this subpart using the procedures in paragraphs (c)(1) and (2) of this section. The owner or operator also may average POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 4 of this subpart using the procedures in paragraphs (c)(1) and (2) of this section. The owner or operator also may average PM emissions from anode bake furnaces and demonstrate compliance

with the limits in Table 4 of this subpart using the procedures in paragraphs (c)(1) and (2) of this section.

(1) Annual emissions of TF, POM and/or PM from a given number of anode bake furnaces making up each averaging group shall not exceed the applicable emission limit in Table 4 of this subpart in any one year; and

(2) To determine compliance with the applicable emission limit in Table 4 of this subpart for anode bake furnaces, the owner or operator shall determine TF, POM and/or PM emissions from the control device for each anode bake furnace at least once each year using the procedures and methods in §§ 63.847 and 63.849.

(d) *Implementation plan.* The owner or operator shall develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements:

(1) *Deadlines.* The owner or operator must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

(2) *Contents.* The owner or operator shall include the following information in the implementation plan or in the application for an operating permit for all emission sources to be included in an emissions average:

(i) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(ii) The assigned TF, POM and/or PM emission limit for each averaging group of potlines and/or anode bake furnaces;

(iii) The specific control technologies or pollution prevention measures to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measures reduce or eliminate emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of TF, POM and/or PM emissions in accordance with the requirements in § 63.847(b);

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If the owner or operator requests to monitor an alternative operating parameter pursuant to § 63.848(l):

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) *Approval criteria.* Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (d)(2) of this section; and

(ii) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

(4) *Prohibitions.* The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources. Emission averaging shall not be allowed between TF, POM and/or PM, and emission averaging shall not be allowed between potlines and anode bake furnaces;

(ii) The inclusion of any emission source other than an existing potline or existing anode bake furnace or the inclusion of any potline or anode bake furnace not subject to the same operating permit; or

(iii) The inclusion of any potline or anode bake furnace while it is shut down, in the emission calculations.

(5) *Term.* Following review, the applicable regulatory authority shall approve the plan or permit application, request changes, or request additional information. Once the applicable regulatory authority receives any additional information requested, the applicable regulatory authority shall approve or disapprove the plan or permit application within 120 days.

(i) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(ii) To revise the plan prior to the end of the permit term, the owner or operator shall submit a request to the applicable regulatory authority; and

(iii) The owner or operator may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

(6) *Operation.* While operating under an approved implementation plan, the owner or operator shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this subpart.

[62 FR 52407, Oct. 7, 1997, as amended at 80 FR 62416, Oct. 15, 2015]

§ 63.847 Compliance provisions.

(a) *Compliance dates.* The owner operator of a primary aluminum reduction plant must comply with the requirements of this subpart by the applicable compliance date in paragraph (a)(1), (a)(2) or (a)(4) of this section:

(1) Except as noted in paragraph (a)(2) of this section, the compliance date for an owner or operator of an existing plant or source subject to the provisions of this subpart is October 7, 1999.

(2) The compliance dates for existing plants and sources are:

(i) October 15, 2015 for the malfunction provisions of §63.850(d)(2) and (e)(4)(xvi) and (xvii) and the electronic reporting provisions of §63.850(b), (c) and (f) which became effective October 15, 2015.

(ii) October 17, 2016 for potline work practice standards in §63.854 and COS emission limit provisions of §63.843(e); for anode bake furnace startup practices in §63.847(l) and PM emission limits in §63.843(c)(3); for Soderberg potline PM and PCB emission limits in §63.843(a)(3)(v) and (a)(6); and for paste production plant startup practices in §63.847(m) and PM emission limits in §63.843(b)(4) which became effective October 15, 2015.

(iii) October 16, 2017 for prebake potline POM emission limits in §63.843(a)(2)(iv) through (vii); for Soderberg potline POM, As and Ni emission limits in §§63.843(a)(2)(iii), (a)(4) and (5); for prebake potline PM emission limits in §63.843(a)(3); for anode bake furnace Hg emission limits in §63.843(c)(4); and for the pitch storage tank POM limit provisions of §63.843(d) which became effective October 15, 2015.

(3) [Reserved]

(4) Upon startup, for an owner or operator of a new or reconstructed source.

(5) Except as provided in paragraphs (a)(6) and (7) of this section, a new affected source is one for which construction or reconstruction commenced after September 26, 1996.

(6) For the purposes of compliance with the emission standards for PM, a new affected potline, anode bake furnace or paste production plant is one for which construction or reconstruction commenced after December 8, 2014.

(7) For the purposes of compliance with the emission standards for POM and COS, a new affected prebake potline is one for which construction or reconstruction commenced after December 8, 2014.

(8) For the purposes of compliance with the emission standards for As, Ni and POM, a new affected Soderberg potline is one for which construction or reconstruction commenced after December 8, 2014.

(9) For the purposes of compliance with the emission standards for Hg, a new affected anode bake furnace is one for which construction or reconstruction commenced after December 8, 2014.

(b) *Test plan.* The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of §63.7(c) of this part. The test plan must include procedures for conducting the initial performance test and for subsequent performance tests required in

§ 63.848 for emission monitoring. In addition to the information required by § 63.7, the test plan shall include:

(1) Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

(2) For a source with a single control device exhausted through multiple stacks, procedures to ensure that at least three runs are performed annually by a representative sample of the stacks satisfactory to the applicable regulatory authority;

(3) For multiple control devices on a single source, procedures to ensure that at least one run is performed annually for each control device by a representative sample of the stacks satisfactory to the applicable regulatory authority;

(4) Procedures for sampling single stacks associated with multiple anode bake furnaces;

(5) For plants with roof scrubbers, procedures for rotating sampling among the scrubbers or other procedures to obtain representative samples as approved by the applicable regulatory authority;

(6) [Reserved]

(7) For a SWPB potline, procedures to ensure that the average of the sampling results for two fans (or two scrubbers) per potline is used for each run; and

(8) Procedures for establishing the frequency of testing to ensure that at least one run is performed before the 15th of the month, at least one run is performed after the 15th of the month, and that there are at least 6 days between two of the runs during the month, or that secondary emissions are measured according to an alternate schedule satisfactory to the applicable regulatory authority.

(c) Following approval of the site-specific test plan, the owner or operator must conduct a performance test to demonstrate initial compliance according to the procedures in paragraph (d) of this section. If a performance test has been conducted on the primary control system for potlines, the anode bake furnace, the paste production plant, or (if applicable) the pitch storage tank control device within the 12 months prior to the compliance date, the results of that performance test may be used to demonstrate initial compliance. The owner or operator must conduct the performance test:

(1) During the first month following the compliance date for an existing potline (or potroom group), anode bake furnace, paste production plant or pitch storage tank.

(2) By the date determined according to the requirements in paragraph (c)(2)(i), (ii), (iii), or (iv) of this section for a new or reconstructed potline, anode bake furnace, or pitch storage tank (for which the owner or operator elects to conduct an initial performance test):

(i) By the 180th day following startup for a potline or potroom group. The 180-day period starts when the first pot in a potline or potroom group is energized.

(ii) By the 45th day from the start of the second anode bake cycle (but no later than the 180th day from the startup of the anode bake furnace).

(iii) By the 30th day following startup for a pitch storage tank. The 30-day period starts when the tank is first used to store pitch.

(iv) By the 30th day following startup of a paste production plant. The 30-day period starts when the paste production plant produces green anodes.

(3) By the date determined according to the requirements in paragraph (c)(3)(i), (ii), (iii) or (iv) of this section for an existing potline, anode bake furnace, paste production plant, or pitch storage tank that was shut down at the time compliance would have otherwise been required and is subsequently restarted:

(i) By the 180th day following startup for a potline or potroom group. The 180-day period starts when the first pot in a potline or potroom group is energized.

(ii) By the 45th day from the start of the second anode bake cycle (but no later than the 180th day from the startup of the anode bake furnace).

(iii) By the 30th day following startup of a paste production plant. The 30-day period starts when the paste production plant produces green anodes.

(iv) By the 30th day following startup for a pitch storage tank. The 30-day period starts when the tank is first used to store pitch.

(d) *Performance test requirements.* The initial performance test and all subsequent performance tests must be conducted in accordance with the applicable requirements of the general provisions in subpart A of this part, the approved test plan and the procedures in this section. Performance tests must 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. Upon request, the owner or operator must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(1) *TF, POM and PM emissions from potlines.* For each potline, the owner or operator shall measure and record the emission rates of TF, POM and PM exiting the outlet of the primary control system and the rate of secondary emissions exiting through each roof monitor, or for a plant with roof scrubbers, exiting through the scrubbers. Using the equation in paragraph (e)(1) of this section, the owner or operator shall compute and record the average of at least three runs semiannually for secondary emissions and at least three runs each year for the primary control system to determine compliance with the applicable emission limit. Compliance is demonstrated when the emission rates of TF, POM, and PM are equal to or less than the applicable emission limits in § 63.843, § 63.844, or § 63.846.

(2) [Reserved]

(3) *Previous control device tests.* If the owner or operator has performed more than one test of primary emission control device(s) for a potline or for a bake furnace during the previous consecutive 12 months, the average of all runs performed in the previous 12-month period shall be used to determine the contribution from the primary emission control system.

(4) *TF, POM, PM and Hg emissions from anode bake furnaces.* For each anode bake furnace, the owner or operator shall measure and record the emission rate of TF, POM, PM and Hg exiting the exhaust stacks(s) of the primary emission control system. In accordance with paragraphs (e)(3) and (4) of this section, the owner or operator shall compute and record the average of at least three runs each year to determine compliance with the applicable emission limits for TF, POM, PM and Hg. Compliance is demonstrated when the emission rates of TF, POM, PM and Hg are equal to or less than the applicable TF, POM, PM and Hg emission limits in § 63.843, § 63.844 or § 63.846.

(5) *Nickel emissions from VSS2 Potlines and new Soderberg potlines.* (i) For each VSS2 potline, and for each new Soderberg potline, the owner or operator must measure and record the emission rate of nickel exiting the primary emission control system and the rate of secondary emissions of nickel exiting through each roof monitor, or for a plant with roof scrubbers, exiting through the scrubbers. Using the equation in paragraph (e)(1) of this section, the owner or operator must compute and record the average of at least three runs each year for secondary emissions and at least three runs each year for primary emissions.

(ii) Compliance is demonstrated when the emissions of nickel are equal to or less than the applicable emission limit in § 63.843(a)(4) or § 63.844(a)(4).

(6) *Arsenic emissions from VSS2 Potlines and from new Soderberg potlines.* (i) For each VSS2 potline, and for each new Soderberg potline, the owner or operator must measure and record the emission rate of arsenic exiting the primary emission control system and the rate of secondary emissions of arsenic exiting through each roof monitor, or for a plant with roof scrubbers, exiting through the scrubbers. Using the equation in paragraph (e)(1) of this section, the owner or operator must compute and record the average of at least three runs each year for secondary emissions and at least three runs each year for primary emissions.

(ii) Compliance is demonstrated when the emissions of arsenic are equal to or less than the applicable emission limit in § 63.843(a)(5) or § 63.844(a)(5).

(7) *PCB emissions from VSS2 Potlines and from new Soderberg potlines.* (i) For each VSS2 potline, and for each new

Soderberg potline, the owner or operator must measure and record the emission rate of PCB exiting the primary emission control system and the rate of secondary emissions of PCB exiting through each roof monitor, or for a plant with roof scrubbers, exiting through the scrubbers. Using the equation in paragraph (e)(1) of this section, the owner or operator must compute and record the average of at least three runs each year for secondary emissions and at least three runs each year for primary emissions.

(ii) Compliance is demonstrated when the emissions of PCB are equal to or less than the applicable emission limit in § 63.843(a)(6) or § 63.844(a)(6).

(e) The owner or operator shall determine compliance with the applicable TF, POM, PM, nickel, arsenic or PCB emission limits using the following equations and procedures:

(1) Compute the emission rate (E_p) of TF, POM, PM, nickel, arsenic or PCB from each potline using Equation 1:

$$E_p = \frac{\left[\left(C_{s1} \times Q_{sd}\right)_1 + \left(C_{s2} \times Q_{sd}\right)_2\right]}{\left(P \times K\right)} \qquad (Equation\ 1)$$

Where:

E_p = emission rate of TF, POM, PM, nickel or arsenic from a potline, kg/Mg (lb/ton) (or µg TEQ/ton for PCB);

C_{s1} = concentration of TF, POM, PM, nickel or arsenic from the primary control system, mg/dscm (mg/dscf) (or µg TEQ/dscf for PCB);

Q_{sd} = volumetric flow rate of effluent gas corresponding to the appropriate subscript location, dscm/hr (dscf/hr);

C_{s2} = concentration of TF, POM, PM, nickel or arsenic as measured for roof monitor emissions, mg/dscm (mg/dscf) (or µg TEQ/dscf for PCB);

P = aluminum production rate, Mg/hr (ton/hr);

K = conversion factor, 10^6 mg/kg (453,600 mg/lb) for TF, POM, PM, nickel or arsenic (= 1 for PCB);

$_1$ = subscript for primary control system effluent gas; and

$_2$ = subscript for secondary control system or roof monitor effluent gas.

(2) [Reserved]

(3) Compute the emission rate (E_b) of TF, POM or PM from each anode bake furnace using Equation 2,

$$E_b = \frac{\left(C_s \times Q_{sd}\right)}{\left(P_b \times K\right)} \qquad (Equation\ 2)$$

Where:

E_b = emission rate of TF, POM or PM, kg/mg (lb/ton) of green anodes;

C_s = concentration of TF, POM or PM, mg/dscm (mg/dscf);

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr);

P_b = quantity of green anode material placed in the furnace, mg/hr (ton/hr); and

K = conversion factor, 10^6 mg/kg (453,600 mg/lb).

(4) Compliance with the anode bake furnace Hg emission standard is demonstrated if the Hg concentration of the exhaust from the anode bake furnace control device is equal to or less than the applicable concentration standard in § 63.843(c)(4) or § 63.844(c)(4).

(5) Determine the weight of the aluminum tapped from the potline and the weight of the green anode material placed in the anode bake furnace using the monitoring devices required in § 63.848(j).

(6) Determine the aluminum production rate (P) by dividing the number of hours in the calendar month into the weight of aluminum tapped from the potline during the calendar month that includes the three runs of a performance test.

(7) Determine the rate of green anode material introduced into the furnace by dividing the number of operating hours in the calendar month into the weight of green anode material used during the calendar month in which the performance test was conducted.

(8) Compute the emission rate (E_{PMpp}) of PM from each paste production plant using Equation 3,

$$E_{PMpp} = \frac{(C_s \times Q_{sd})}{(P_b \times K)} \qquad \textit{Equation 3}$$

Where:

E_{PMpp} = emission rate of PM, kg/mg (lb/ton) of green anode material exiting the paste production plant;

C_s = concentration of PM, mg/dscm (mg/dscf);

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr);

P_b = quantity of green anode material exiting the paste production plant, mg/hr (ton/hr); and

K = conversion factor, 10^6 mg/kg (453,600 mg/lb).

(f) *Paste production plants.* (1) Initial compliance with the POM standards for existing and new paste production plants in §§ 63.843(b) and 63.844(b) will be demonstrated through site inspection(s) and review of site records by the applicable regulatory authority.

(2) For each paste production plant, the owner or operator shall measure and record the emission rate of PM exiting the exhaust stacks(s) of the primary emission control system. Using the equation in paragraph (e)(8) of this section, the owner or operator shall compute and record the average of at least three runs each year to determine compliance with the applicable emission limits for PM. Compliance with the PM standards for existing and new paste production plants is demonstrated when the PM emission rates are less than or equal to the applicable PM emission limits in §§ 63.843(b)(4) and 63.844(b)(2).

(g) *Pitch storage tanks.* The owner or operator must demonstrate initial compliance with the standard for pitch storage tanks in §§ 63.843(d) and 63.844(d) by preparing a design evaluation or by conducting a performance test. The owner or operator must submit for approval by the regulatory authority the information specified in paragraph (g)(1) of this section, along with the information specified in paragraph (g)(2) of this section where a design evaluation is performed or the information specified in paragraph (g)(3) of this section where a performance test is conducted.

(1) A description of the parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed; and

(2) Where a design evaluation is performed, documentation demonstrating that the control device used achieves the required control efficiency during reasonably expected maximum filling rate. The documentation shall include a description of the gas stream that enters the control device, including flow and POM content under varying liquid level conditions, and the information specified in paragraphs (g)(2)(i) through (g)(2)(vi) of this section, as applicable.

(i) If the control device receives vapors, gases, or liquids, other than fuels, from emission points other than pitch storage tanks, the efficiency demonstration is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device;

(ii) If an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760 degrees C (1,400 degrees F) is used to meet the emission reduction requirement specified in § 63.843(d) and § 63.844(d), documentation that those conditions exist is sufficient to meet the requirements of § 63.843(d) and § 63.844(d);

(iii) Except as provided in paragraph (g)(2)(ii) of this section, for thermal incinerators, the design evaluation shall

include the autoignition temperature of the organic HAP, the flow rate of the organic HAP emission stream, the combustion temperature, and the residence time at the combustion temperature;

(iv) If the pitch storage tank is vented to the emission control system installed for control of emissions from the paste production plant pursuant to § 63.843(b) or § 63.844(b)(1), documentation of compliance with the requirements of § 63.843(b) is sufficient to meet the requirements of § 63.843(d) or § 63.844(d);

(v) For carbon adsorbers, the design evaluation shall include the affinity of the organic vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity of the feed gases, the temperature of the feed gases, the flow rate of the organic HAP emission stream, and if applicable, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, the pressure drop shall be included; and

(vi) For condensers, the design evaluation shall include the final temperature of the organic HAP vapors, the type of condenser, and the design flow rate of the organic HAP emission stream.

(3) If a performance test is conducted, the owner or operator shall determine the control efficiency for POM during tank loading using Method 315 in appendix A to this part. The owner or operator shall include the following information:

(i) Identification of the pitch storage tank and control device for which the performance test will be submitted; and

(ii) Identification of the emission point(s) that share the control device with the pitch storage tank and for which the performance test will be conducted.

(h) *Selection of monitoring parameters.* The owner or operator shall determine the operating limits and monitoring frequency for each control device that is to be monitored as required in § 63.848(f).

(1) For potlines and anode bake furnaces, the owner or operator shall determine upper and/or lower operating limits, as appropriate, for each monitoring device for the emission control system from the values recorded during each of the runs performed during the initial performance test and from historical data from previous performance tests conducted by the methods specified in this subpart.

(2) For a paste production plant, the owner or operator shall specify and provide the basis or rationale for selecting parameters to be monitored and the associated operating limits for the emission control device.

(3) The owner or operator may redetermine the upper and/or lower operating limits, as appropriate, based on historical data or other information and submit an application to the applicable regulatory authority to change the applicable limit(s). The redetermined limits shall become effective upon approval by the applicable regulatory authority.

(i) [Reserved]

(j) *Carbonyl sulfide (COS) emissions.* The owner operator must calculate, for each potline, the emission rate of COS for each calendar month of operation using Equation 4:

$$E_{COS} = [K] \times \left[\frac{Y}{Z}\right] \times [S] \quad \cdots (Equation\ 4)$$

Where:

E_{COS} = the emission rate of COS during the calendar month, pounds per ton of aluminum produced;

K = factor accounting for molecular weights and conversion of sulfur to carbonyl sulfide = 234;

Y = the mass of anode consumed in the potline during the calendar month, tons;

Z = the mass of aluminum produced by the potline during the calendar month, tons; and

S = the weighted average fraction of sulfur in the anode coke consumed in the production of aluminum during the calendar month (e.g., if the weighted average sulfur content of the anode coke consumed during the calendar month was 2.5 percent, then S = 0.025). The weight of anode coke used during the calendar month of each different concentration of sulfur is used to calculate the overall weighted average fraction of sulfur.

Compliance is demonstrated if the calculated value of E_{COS} is less than the applicable standard for COS emissions in §§ 63.843(e) and 63.844(e).

(k) *Startup of potlines.* The owner or operator must develop a written startup plan as described in § 63.854(b) that contains specific procedures to be followed during startup periods of potline(s). Compliance with the applicable standards in § 63.854(b) will be demonstrated through site inspection(s) and review of site records by the regulatory authority.

(l) *Startup of anode bake furnaces.* The owner or operator must develop a written startup plan as described in paragraphs (l)(1) through (4) of this section, to be followed during startup periods of bake furnaces. Compliance with the startup plan will be demonstrated through site inspection(s) and review of site records by the regulatory authority. The written startup plan must contain specific procedures to be followed during startup periods of anode bake furnaces, including the following:

(1) A requirement to develop an anode bake furnace startup schedule.

(2) Records of time, date, duration of anode bake furnace startup and any nonroutine actions taken during startup of the furnaces.

(3) A requirement that the associated emission control system be operating within normal parametric limits prior to startup of the anode bake furnace.

(4) A requirement to take immediate actions to stop the startup process as soon as practicable and continue to comply with § 63.843(f) or § 63.844(f) if the associated emission control system is off line at any time during startup. The anode bake furnace restart may resume once the associated emission control system is back on line and operating within normal parametric limits.

(m) *Startup of paste production plants.* The owner or operator must develop a written startup plan as described in paragraphs (m)(1) through (3) of this section, to be followed during startup periods for paste production plants. Compliance with the startup plan will be demonstrated through site inspection(s) and review of site records by the regulatory authority. The written startup plan must contain specific procedures to be followed during startup periods of paste production plants, including the following:

(1) Records of time, date, duration of paste production plant startup and any nonroutine actions taken during startup of the paste production plants.

(2) A requirement that the associated emission control system be operating within normal parametric limits prior to startup of the paste production plant.

(3) A requirement to take immediate actions to stop the startup process as soon as practicable and continue to comply with § 63.843(f) or § 63.844(f) if the associated emission control system is off line at any time during startup. The paste production plant restart may resume once the associated emission control system is back on line and operating within normal parametric limits.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66284, Nov. 2, 2005; 80 FR 62417, Oct. 15, 2015]

§ 63.848 Emission monitoring requirements.

(a) *TF and PM emissions from potlines.* Using the procedures in § 63.847 and in the approved test plan, the owner or operator shall monitor emissions of TF and PM from each potline by conducting annual performance tests on the primary control system and semiannual performance tests on the secondary emissions. The owner or operator shall compute and record the average semiannually from at least three runs for secondary emissions and the average from at least three runs for the primary control system to determine compliance with the applicable emission limit. The owner or operator must include all valid runs in the semiannual average. The duration of each run for secondary emissions must represent a complete operating cycle. Potline emissions shall be recorded as the sum of the average of at least three

runs from the primary control system and the average of at least three runs from the roof monitor or secondary emissions control device.

(b) *POM emissions from potlines.* Using the procedures in § 63.847 and in the approved test plan, the owner or operator must monitor emissions of POM from each potline stack annually and secondary potline POM emissions semiannually. The owner or operator must compute and record the semiannual average from at least three runs for secondary emissions and at least three runs for the primary control systems to determine compliance with the applicable emission limit. The owner or operator must include all valid runs in the semiannual average. The duration of each run for secondary emissions must represent a complete operating cycle. The primary control system must be sampled over an 8-hour period, unless site-specific factors dictate an alternative sampling time subject to the approval of the regulatory authority. Potline emissions shall be recorded as the sum of the average of at least three runs from the primary control system and the average of at least three runs from the roof monitor or secondary emissions control device.

(c) *TF, PM, Hg and POM emissions from anode bake furnaces.* Using the procedures in § 63.847 and in the approved test plan, the owner or operator shall determine TF, PM, Hg and POM emissions from each anode bake furnace on an annual basis. The owner or operator shall compute and record the annual average of TF, PM, Hg and POM emissions from at least three runs to determine compliance with the applicable emission limits. A minimum of four dscm per run must be collected for monitoring of Hg emissions. The owner or operator must include all valid runs in the annual average.

(d) *Similar potlines.* As an alternative to semiannual monitoring of TF, POM or PM secondary emissions from each potline using the methods in § 63.849, the owner or operator may perform semiannual monitoring of TF, POM or PM secondary emissions from one potline using the test methods in § 63.849(a) or (b) to represent the performance of similar potline(s). The similar potline(s) must be monitored using an alternative method that meets the requirements of paragraphs (d)(1) through (7) of this section. Two or more potlines are similar if the owner or operator demonstrates that their structure, operability, type of emissions, volume of emissions and concentration of emissions are substantially equivalent.

(1) To demonstrate (to the satisfaction of the regulatory authority) that the level of emission control performance is the same or better, the owner or operator shall perform an emission test using an alternative monitoring procedure for the similar potline simultaneously with an emission test using the applicable test methods. The results of the emission test using the applicable test methods must be in compliance with the applicable emission limit for existing or new potlines in § 63.843 or § 63.844. An alternative method:

(i) For TF emissions, must account for or include gaseous fluoride and cannot be based on measurement of particulate matter or particulate fluoride alone; and

(ii) For TF, POM and PM emissions, must meet or exceed Method 14 criteria.

(2) An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

(3) An owner or operator electing to use an alternative monitoring procedure shall establish an alternative emission limit based on at least nine simultaneous runs using the applicable test methods and the alternative monitoring method. All runs must represent a full process cycle.

(4) The owner or operator shall derive an alternative emission limit for the HF continuous emission monitor or an alternative method using either of the following procedures:

(i) Use the highest value from the alternative method associated with a simultaneous run by the applicable test method that does not exceed the applicable emission limit; or

(ii) Correlate the results of the two methods (the applicable test method results and the alternative monitoring

method results) and establish an emission limit for the alternative monitoring system that corresponds to the applicable emission limit.

(5) The owner or operator shall submit the results required in paragraph (d)(4) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

(6) The regulatory authority shall review and approve or disapprove the request for an alternative method and alternative emission limit. The criterion for approval shall be a demonstration (to the satisfaction of the regulatory authority) that the alternative method and alternative emission limit achieve a level of emission control that is the same as or better than the level that would have otherwise been achieved by the applicable method and emission limit.

(7) If the alternative method is approved by the applicable regulatory authority, the owner or operator must perform semiannual emission monitoring using the approved alternative monitoring procedure to demonstrate compliance with the alternative emission limit for each similar potline.

(e) [Reserved]

(f) *Monitoring parameters for emission control devices.* The owner or operator shall install, operate, calibrate, and maintain a continuous parameter monitoring system for each emission control device. The owner or operator shall submit for approval by the regulatory authority a description of the parameter(s) to be monitored, the operating limits, and the monitoring frequency to ensure that the control device is being properly operated and maintained. An explanation of the criteria used for selection of the parameter(s), the operating limits, and the monitoring frequency, including how these relate to emission control also shall be submitted to the regulatory authority. Except as provided in paragraph (l) of this section, the following monitoring devices shall be installed:

(1) For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

(2) For dry coke scrubbers, devices for the measurement of coke flow and air flow;

(3) For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

(4) For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

(5) For wet roof scrubbers for secondary emission control:

(i) A device for the measurement of total water flow; and

(ii) The owner or operator shall inspect each control device at least once each operating day to ensure the control device is operating properly and record the results of each inspection.

(6) For emission sources control device exhaust streams for which the owner or operator chooses to demonstrate continuous compliance through bag leak detection systems you must install and operate a bag leak detection system according to the requirements in paragraph (o) of this section, and you must set your operating limit such that the sum of the durations of bag leak detection system alarms does not exceed 5 percent of the process operating time during a 6-month period.

(7) For emission sources control device exhaust streams for which the owner or operator chooses to demonstrate continuous compliance through a PM CEMS, you must install and operate a PM CEMS according to the requirements in paragraph (p) of this section. You must determine continuous compliance averaged on a rolling 30 operating day basis, updated at the end of each new operating day. All valid hours of data from 30 successive operating days shall be included in the arithmetic average. Compliance is demonstrated when the 30 operating day PM emissions are equal to or less than the applicable emission limits in §63.843, §63.844, or §63.846.

(g) The owner or operator of a new or reconstructed affected source that is subject to a PM limit shall comply with the requirements of either paragraph (f)(6) or (7) of this section. The owner or operator of an existing affected source that is equipped with a control device and is subject to a PM limit shall:

(1) Install and operate a bag leak detection system in accordance with paragraph (f)(6) of this section; or

(2) Install and operate a PM CEMS in accordance with paragraph (f)(7) of this section; or

(3) Visually inspect the exhaust stack(s) of each fabric filter using Method 22 on a twice daily basis (at least 4 hours apart) for evidence of any visible emissions indicating abnormal operations and, must initiate corrective actions within 1 hour of a visible emissions inspection that indicates abnormal operation. Corrective actions shall include, at a minimum, isolating, shutting down and conducting an internal inspection of the baghouse compartment that is the source of the visible emissions that indicate abnormal operations.

(h) *Corrective action.* If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to § 63.847(h), if visible emissions indicating abnormal operation are observed from the exhaust stack of a control device during a daily inspection, or if a problem is detected during the daily inspection of a wet roof scrubber for potline secondary emission control, the owner or operator shall initiate corrective action procedures within 1 hour. Failure to initiate the corrective action procedures within 1 hour or to take the necessary corrective actions to remedy the problem is a violation.

(i) *Exceedances.* If the limit for a given operating parameter associated with monitoring a specific control device is exceeded six times in any semiannual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any given 24-hour period.

(j) *Weight of aluminum and green anodes.* The owner or operator of a new or existing potline or anode bake furnace shall install, operate, and maintain a monitoring device to determine the daily weight of aluminum produced and the weight of green anode material placed in the anode bake furnace. The weight of green anode material may be determined by monitoring the weight of all anodes or by monitoring the number of anodes placed in the furnace and determining an average weight from measurements of a representative sample of anodes.

(k) *Accuracy and calibration.* The owner or operator shall submit recommended accuracy requirements to the regulatory authority for review and approval. All monitoring devices required by this section must be certified by the owner or operator to meet the accuracy requirements and must be calibrated in accordance with the manufacturer's instructions.

(l) *Alternative operating parameters.* The owner or operator may monitor alternative control device operating parameters subject to prior written approval by the applicable regulatory authority.

(m) *Other control systems.* An owner or operator using a control system not identified in this section shall request that the applicable regulatory authority include the recommended parameters for monitoring in the facility's part 70 permit.

(n) *PM emissions from paste production plants.* Using the procedures in § 63.847 and in the approved test plan, the owner or operator shall monitor PM emissions from each paste production plant on an annual basis. The owner or operator shall compute and record the annual average of PM emissions from at least three runs to determine compliance with the applicable emission limits. The owner or operator must include all valid runs in the annual average.

(o) *Bag leak detection system.* For each new affected source subject to a PM emissions limit, you must install, operate and maintain a bag leak detection system according to paragraphs (o)(1) through (3) of this section, unless a system meeting the requirements of paragraph (p) of this section, for a CEMS, is installed for monitoring the concentration of PM.

(1) You must develop and implement written procedures for control device maintenance that include, at a minimum, a preventative maintenance schedule that is consistent with the control device manufacturer's instructions for routine and long-term maintenance.

(2) Each bag leak detection system must meet the specifications and requirements in paragraphs (o)(2)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1.0 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings.

(iii) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loadings is detected over a preset level.

(iv) You must install, calibrate, operate and maintain the bag leak detection system according to the manufacturer's written specifications and recommendations.

(v) The initial adjustment of the system must, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(vi) Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except in accordance with the procedures developed under paragraph (o)(1) of this section. You cannot increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete PM control device inspection that demonstrates that the PM control device is in good operating condition.

(vii) You must install the bag leak detector downstream of the PM control device.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(3) You must include in the written procedures required by paragraph (o)(1) of this section a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan must include, at a minimum, the procedures that you will use to determine and record the time and cause of the alarm as well as the corrective actions taken to minimize emissions as specified in paragraphs (o)(3)(i) and (ii) of this section.

(i) The procedures used to determine the cause of the alarm must be initiated within 1 hour of the alarm.

(ii) The cause of the alarm must be alleviated by taking the necessary corrective action(s) that may include, but not be limited to, those listed in paragraphs (o)(3)(ii)(A) through (F) of this section.

(A) Inspecting the PM control device for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.

(B) Sealing off defective bags or filter media.

(C) Replacing defective bags or filter media, or otherwise repairing the control device.

(D) Sealing off a defective baghouse compartment.

(E) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(F) Shutting down the process producing the particulate emissions.

(p) *Particulate Matter CEMS.* If you are using a CEMS to measure particulate matter emissions to meet requirements of this subpart, you must install, certify, operate and maintain the particulate matter CEMS as specified in paragraphs (p)(1) through (4) of this section.

(1) You must conduct a performance evaluation of the PM CEMS according to the applicable requirements of §60.13, and Performance Specification 11 at 40 CFR part 60, Appendix B of this chapter.

(2) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, Appendix B of this chapter, collect data concurrently by both the CEMS and by conducting performance tests using Method 5, 5D or 5I at 40 CFR part 60, Appendix A–3.

(3) Operate and maintain the CEMS in accordance with Procedure 2 at 40 CFR part 60, Appendix F of this chapter. Relative Response Audits must be

performed annually and Response Correlation Audits must be performed every three years.

[62 FR 52407, Oct. 7, 1997, as amended at 71 FR 20458, Apr. 20, 2006; 80 FR 62420, Oct. 15, 2015]

§ 63.849 Test methods and procedures.

(a) The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF, POM, PM, Ni, As, Hg, PCB and conduct visible emissions observations:

(1) Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

(2) Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

(3) Method 3 in appendix A to part 60 of this chapter for gas analysis;

(4) Method 13A or Method 13B in appendix A to part 60 of this chapter, or an approved alternative, for the concentration of TF where stack or duct emissions are sampled;

(5) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to part 60 of this chapter or an approved alternative method for the concentration of TF where emissions are sampled from roof monitors not employing wet roof scrubbers;

(6) Method 315 in appendix A to this part or an approved alternative method for the concentration of POM where stack or duct emissions are sampled;

(7) Method 315 in appendix A to this part and Method 14 or 14A in appendix A to part 60 of this chapter or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers. Method 315 need not be set up as required in the method. Instead, when using Method 14A, replace the Method 14A monitor cassette filter with the filter specified by Method 315. Recover and analyze the filter according to Method 315. When using Method 14, test at ambient conditions, do not heat the filter and probe, and do not analyze the back half of the sampling train;

(8) Method 5 in appendix A to part 60 of this chapter or an approved alternative method for the concentration of PM where stack or duct emissions are sampled;

(9) Method 17 and Method 14 or Method 14A in appendix A to part 60 of this chapter or an approved alternative method for the concentration of PM where emissions are sampled from roof monitors not employing wet roof scrubbers. Method 17 need not be set up as required in the method. Instead, when using Method 14A, replace the Method 14A monitor cassette filter with the filter specified by Method 17. Recover and analyze the filter according to Method 17. When using Method 14, test at ambient conditions, do not heat the filter and probe, and do not analyze the back half of the sampling train;

(10) Method 29 in appendix A to part 60 of this chapter or an approved alternative method for the concentration of mercury, nickel and arsenic where stack or duct emissions are sampled;

(11) Method 29 and Method 14 or Method 14A in appendix A to part 60 of this chapter or an approved alternative method for the concentration of nickel and arsenic where emissions are sampled from roof monitors not employing wet roof scrubbers. Method 29 need not be set up as required in the method. Instead, replace the Method 14A monitor cassette filter with the filter specified by Method 29. Recover and analyze the filter according to Method 29. When using Method 14, test at ambient conditions, do not heat the filter and probe, and do not analyze the back half of the sampling train;

(12) Method 22 in Appendix A to part 60 of this chapter or an approved alternative method for determination of visual emissions;

(13) Method 23 of Appendix A–7 of 40 CFR part 60 for the measurement of Polychlorinated Biphenyls (PCBs) where stack or duct emissions are sampled; and

(14) Method 23 of Appendix A–7 of 40 CFR part 60 and Method 14 or Method 14A in Appendix A to Part 60 of this chapter or an approved alternative method for the concentration of PCB where emissions are sampled from roof monitors not employing wet roof scrubbers.

(b) The owner or operator of a VSS potline or a SWPB potline equipped with wet roof scrubbers for the control

of secondary emissions shall use methods that meet the intent of the sampling requirements of Method 14 in appendix A to part 60 of this chapter and that are approved by the State. Sample analysis shall be performed using Method 13A or Method 13B in appendix A to part 60 of this chapter for TF, Method 315 in appendix A to this part for POM, or an approved alternative method.

(c) Except as provided in § 63.845(g)(1), references to ''potroom'' or ''potroom group'' in Method 14 in appendix A to part 60 of this chapter shall be interpreted as ''potline'' for the purposes of this subpart.

(d) For sampling using Method 14 in appendix A to part 60 of this chapter, the owner or operator shall install one Method 14 manifold per potline in a potroom that is representative of the entire potline, and this manifold shall meet the installation requirements specified in section 2.2.1 of Method 14 in appendix A to part 60 of this chapter.

(e) The owner or operator may use an alternative test method for TF or POM emissions providing:

(1) The owner or operator has already demonstrated the equivalency of the alternative method for a specific plant and has received previous approval from the Administrator or the applicable regulatory authority for TF or POM measurements using the alternative method; or

(2) The owner or operator demonstrates to the satisfaction of the applicable regulatory authority that the results from the alternative method meet the criteria specified in §§ 63.848(d)(1) and (d)(3) through (d)(6). The results from the alternative method shall be based on simultaneous sampling using the alternative method and the following reference methods:

(i) For TF, Methods 13 and 14 or Method 14A in appendix A to part 60 of this chapter; or

(ii) For POM, Method 315 in appendix A to this part and Method 14 in appendix A to part 60 of this chapter.

(f) The owner or operator must use either ASTM D4239–14e1 or ASTM D6376–10 (incorporated by reference; see § 63.14) for determination of the sulfur content in anode coke shipments to determine compliance with the applicable emission limit for COS emissions.

[62 FR 52407, Oct. 7, 1997, as amended at 80 FR 62421, Oct. 15, 2015; 88 FR 16773, Mar. 20, 2023]

§ 63.850 Notification, reporting, and recordkeeping requirements.

(a) *Notifications.* The owner or operator shall submit the following written notifications:

(1) Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

(2) Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

(3) Notification that a source is subject to the standard, where the source is new or has been reconstructed, the initial startup is after the effective date of the standard, and for which an application for approval of construction or reconstruction is not required;

(4) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after the effective date of the standard, and for which an application for approval of construction or reconstruction is required [see §§ 63.9(b)(4) and (b)(5)];

(5) Notification of initial performance test;

(6) Notification of initial compliance status;

(7) One-time notification for each affected source of the intent to use an HF continuous emission monitor;

(8) *Notification of compliance approach.* The owner or operator shall develop and submit to the applicable regulatory authority, if requested, an engineering plan that describes the techniques that will be used to address the capture efficiency of the reduction cells for gaseous hazardous air pollutants in compliance with the emission limits in §§ 63.843, 63.844, and 63.846; and

(9) One-time notification of startup of an existing potline or potroom group, anode bake furnace, or paste production plant that was shut down

for a long period and subsequently restarted. The owner or operator must provide written notice to the Administrator at least 30 days before the startup.

(b) *Performance test reports.* Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests following the procedure specified in either paragraph (b)(1) or (b)(2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/epa_home.asp*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

(3) For data collected which requires summation of results from both ERT and non-ERT supported test methods in order to demonstrate compliance with an emission limit, you must submit the results of the performance test(s) used to demonstrate compliance with that emission limit to the Administrator at the appropriate address listed in § 63.13.

(c) *Performance evaluation reports.* Within 60 days after the date of completing each continuous emissions monitoring system performance evaluation (as defined in § 63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (c)(1) or (2) of this section.

(1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance evaluation data in an electronic file format consistent with the XML schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to

the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.

(d) *Reporting*. In addition to the information required under § 63.10 of the General Provisions, the owner or operator must provide semiannual reports containing the information specified in paragraphs (d)(1) and (2) of this section to the Administrator or designated authority.

(1) Excess emissions report. As required by § 63.10(e)(3), the owner or operator must submit a report (or a summary report) if measured emissions are in excess of the applicable standard. The report must contain the information specified in § 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

(2) If there was a malfunction during the reporting period, the owner or operator must submit a report that includes the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §§ 63.843(f) and 63.844(f), including actions taken to correct a malfunction.

(e) *Recordkeeping*. The owner or operator shall maintain files of all information (including all reports and notifications) required by § 63.10(b) and by this subpart.

(1) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained offsite;

(2) The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

(3) The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

(4) In addition to the general records required by § 63.10(b), the owner or operator shall maintain records of the following information:

(i) Daily production rate of aluminum;

(ii) Daily production rate of green anode material placed in the anode bake furnace;

(iii) [Reserved]

(iv) Records of design information for paste production plant capture systems;

(v) Records of design information for an alternative emission control device for a paste production plant;

(vi) Records supporting the monitoring of similar potlines demonstrating that the performance of similar potlines is the same as or better than that of potlines sampled by manual methods;

(vii) Records supporting a request for reduced sampling of potlines;

(viii) Records supporting the correlation of emissions measured by a continuous emission monitoring system to emissions measured by manual methods and the derivation of the alternative emission limit derived from the measurements;

(ix) The current implementation plan for emission averaging and any subsequent amendments;

(x) Records, such as a checklist or the equivalent, demonstrating that the daily inspection of a potline with wet roof scrubbers for secondary emission control has been performed as required in § 63.848(f)(5)(ii), including the results of each inspection;

(xi) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for each control device has been performed as required in § 63.848(g), including the results of each inspection;

(xii) For a potline equipped with an HF continuous emission monitor,

records of information and data required by § 63.10(c);

(xiii) Records documenting the corrective actions taken when the limit(s) for an operating parameter established under § 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under § 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in § 63.848(f)(5)(ii);

(xiv) Records documenting any POM data that are invalidated due to the installation and startup of a cathode;

(xv) Records documenting the portion of TF that is measured as particulate matter and the portion that is measured as gaseous when the particulate and gaseous fractions are quantified separately using an approved test method;

(xvi) Records of the occurrence and duration of each malfunction of operation (*i.e.* process equipment) or the air pollution control equipment and monitoring equipment; and

(xvii) Records of actions taken during periods of malfunction to minimize emissions in accordance with §§ 63.843(f) and 63.844(f), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(f) All reports required by this subpart not subject to the requirements in paragraph (b) or (c) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraph (b) of this section in paper format.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66285, Nov. 2, 2005; 71 FR 20458, Apr. 20, 2006; 80 FR 62421, Oct. 15, 2015]

§ 63.851 Regulatory authority review procedures.

(a) The applicable regulatory authority shall notify the owner or operator in writing of the need for additional time to review the submissions in paragraphs (a)(1) through (a)(5) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(1) through (a)(5) of this section within 60 calendar days after receipt of sufficient information to evaluate the submission. The 60-day period begins after the owner or operator has been notified that the submission is complete.

(1) The test plan in § 63.847(b);

(2) Request to change limits for operating parameters in § 63.847(h)(3);

(3) Request for similar potline monitoring in § 63.848(d)(5);

(4) Request for reduced sampling frequency in § 63.848(e); and

(5) Request for an alternative method in § 63.849(e)(2).

(b) The applicable regulatory authority shall notify the owner or operator in writing whether the submission is complete within 30 calendar days of receipt of the original submission or within 30 days of receipt of any supplementary information that is submitted. When a submission is incomplete, the applicable regulatory authority shall specify the information needed to complete the submission and shall give the owner or operator 30 calendar days after receipt of the notification to provide the information.

§ 63.852 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are not applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A of this subpart.

§ 63.853 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this regulation. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.840, 63.843 (with the exception of 63.843(b)(3)), 63.844, 63.845(a) introductory text, (a)(1), (b) through (e), (h), 63.846(a) through (c), and 63.847(a)(1) and (4).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

§ 63.854 Work practice standards for potlines.

(a) *Periods of operation other than startup.* If you own or operate a new or existing primary aluminum reduction affected source, you must comply with the requirements of paragraphs (a)(1) through (8) of this section during periods of operation other than startup.

(1) Ensure the potline scrubbers and exhaust fans are operational at all times.

(2) Ensure that the primary capture and control system is operating at all times.

(3) Hood covers should be replaced as soon as possible after each potroom operation.

(4) Inspect potlines daily and perform the work practices specified in paragraphs (a)(4)(i) through (iii) of this section.

(i) Identify unstable pots as soon as practicable but in no case more than 12 hours from the time the pot became unstable;

(ii) Reduce cell temperatures to as low as practicable, and follow the written operating plan described in paragraph (b)(4) of this section if the cell temperature exceeds the specified high temperature limit; and

(iii) Reseal pot crusts that have been broken as often and as soon as practicable.

(5) Ensure that hood covers fit properly and are in good condition.

(6) If the exhaust system is equipped with an adjustable damper system, the hood exhaust rate for individual pots must be increased whenever hood covers are removed from a pot, provided that the exhaust system will not be overloaded by placing too many pots on high exhaust.

(7) Dust entrainment must be minimized during material handling operations and sweeping of the working aisles.

(8) Only tapping crucibles with functional aspirator air return systems (for returning gases under the collection hooding) can be used, unless the regulatory authority approves an alternative tapping crucible.

(b) *Periods of startup.* If you own or operate a new or existing primary aluminum reduction affected source, you must comply with the requirements of paragraphs (a)(1) through (8) and (b)(1) through (4) of this section during periods of startup for each affected potline.

(1) Develop a potline startup schedule before starting up the potline.

(2) Keep records of the number of pots started each day.

(3) Inspect potlines daily and adjust pot parameters to their optimum levels, as specified in the operating plan described in paragraph (b)(4) of this section, including, but not limited to: alumina addition rate, exhaust air flow rate, cell voltage, feeding level, anode current and liquid and solid bath levels.

(4) Prepare a written operating plan to minimize emissions during startup to include, but not limited to, the requirements in (b)(1) through (3) of this section. The operating plan must include a specified high temperature limit for pots that will trigger corrective action.

[80 FR 62423, Oct. 15, 2015]

§ 63.855 Alternative emissions limits for co-controlled new and existing anode bake furnaces.

(a) *Applicability*. The owner or operator of a new anode bake furnace meeting the criteria of paragraphs (a)(1) and (2) of this section may demonstrate compliance with alternative TF and POM emission limits according to the procedures of this section.

(1) The new anode bake furnace must have been permitted to operate prior to May 1, 1998; and

(2) The new anode bake furnace must share a common control device with one or more existing anode bake furnaces.

(b) *TF emission limit*. (1) Prior to the date on which each TF emission test is required to be conducted, the owner or operator must determine the applicable TF emission limit using Equation 6–A,

$$L_{TFC} = [(L_{TFE} \times P_E) + (0.018 \times P_N)]/(P_E + P_N) \qquad Eq.\ 6\text{-}A$$

Where:

L_{TFC} = Combined emission limit for TF, lb/ton green anode material placed in the bake furnace;

L_{TFE} = TF limit for emission averaging for the total number of new and existing anode bake furnaces from Table 4 to this subpart;

P_E = Mass of green anode placed in existing anode bake furnaces in the twelve months preceding the compliance test, ton/year; and

P_N = Mass of green anode placed in new anode bake furnaces in the twelve months preceding the compliance test, ton/year.

(2) The owner or operator of a new anode bake furnace that is controlled by a control device that also controls emissions of TF from one or more existing anode bake furnaces must not discharge, or cause to be discharged into the atmosphere, any emissions of TF in excess of the emission limits established in paragraph (b)(1) of this section.

(c) *POM emission limits*. (1) Prior to the date on which each POM emission test is required to be conducted, the owner or operator must determine the applicable POM emission limit using Equation 6–B,

$$L_{POMC} = [(0.17 \times P_E) + (0.045 \times P_N)]/(P_E + P_N) \qquad Eq.\ 6\text{-}B$$

Where:

L_{POMC} = Combined emission limit for POM, lb/ton green anode material placed in the bake furnace.

(2) The owner or operator of a new anode bake furnace that is controlled by a control device that also controls emissions of POM from one or more existing anode bake furnaces must not discharge, or cause to be discharged into the atmosphere, any emissions of TF in excess of the emission limits established in paragraph (c)(1) of this section.

[80 FR 62423, Oct. 15, 2015]

§§ 63.856–63.859 [Reserved]

TABLE 1 TO SUBPART LL OF PART 63—POTLINE TF LIMITS FOR EMISSION AVERAGING

Type	Semiannual TF limit (lb/ton) [for given number of potlines]						
	2 lines	3 lines	4 lines	5 lines	6 lines	7 lines	8 lines
CWPB1	1.7	1.6	1.5	1.5	1.4	1.4	1.4
CWPB2	2.9	2.8	2.7	2.7	2.6	2.6	2.6
CWPB3	2.3	2.2	2.2	2.1	2.1	2.1	2.1

Type	Semiannual TF limit (lb/ton) [for given number of potlines]						
	2 lines	3 lines	4 lines	5 lines	6 lines	7 lines	8 lines
SWPB	1.4	1.3	1.3	1.2	1.2	1.2	1.2
VSS2	2.6	2.5	2.5	2.4	2.4	2.4	2.4

[80 FR 62424, Oct. 15, 2015

TABLE 2 TO SUBPART LL OF PART 63—POTLINE POM LIMITS FOR EMISSION AVERAGING

Type	Semiannual POM limit (lb/ton) [for given number of potlines]						
	2 lines	3 lines	4 lines	5 lines	6 lines	7 lines	8 lines
CWPB1	1	0.9	0.9	0.9	0.8	0.8	0.8
CWPB2	11.6	11.2	10.8	10.8	10.4	10.4	10.4
CWPB3	2.5	2.4	2.4	2.3	2.3	2.3	2.3
SWPB	14.8	13.8	13.8	13.8	13.8	13.8	13.8
VSS2	1.7	1.6	1.5	1.5	1.4	1.4	1.4

[80 FR 62424, Oct. 15, 2015]

TABLE 3 TO SUBPART LL OF PART 63—POTLINE PM LIMITS FOR EMISSION AVERAGING

Type	Semiannual PM limit (lb/ton) [for given number of potlines]						
	2 lines	3 lines	4 lines	5 lines	6 lines	7 lines	8 lines
CWPB1	6.1	6.1	5.3	5.3	5.0	5.0	5.0
CWPB2	10.6	10.3	9.9	9.9	9.5	9.5	9.5
CWPB3	18.4	17.6	17.6	16.8	16.8	16.8	16.8
SWPB	4.3	3.9	3.9	3.7	3.7	3.7	3.7
VSS2	25	24.1	24.1	23.1	23.1	23.1	23.1

[80 FR 62425, Oct. 15, 2015]

TABLE 4 TO SUBPART LL OF PART 63—ANODE BAKE FURNACE LIMITS FOR EMISSION AVERAGING

Number of furnaces	Emission limit (lb/ton of anode)		
	TF	POM	PM
2	0.11	0.17	0.11
3	0.09	0.17	0.091
4	0.077	0.17	0.076
5	0.07	0.17	0.071

[80 FR 62424, Oct. 15, 2015]

APPENDIX A TO SUBPART LL OF PART 63—APPLICABILITY OF GENERAL PROVISIONS

Reference section(s)	Requirement	Applies to subpart LL	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	[Reserved].
63.1(a)(6)		Yes.	
63.1(a)(7) through (9)		No	[Reserved].
63.1(a)(10) through (12)		Yes.	
63.1(b)(1) through (3)	Initial Applicability Determination	Yes	(b)(2) Reserved.
63.1(c)(1)	Applicability after standard Established.	Yes.	
63.1(c)(2)		Yes	Area sources are not subject to this subpart.
63.1(c)(3) and (4)		No	[Reserved].
63.1(c)(5)		Yes.	
63.1(c)(6)	Reclassification	Yes.	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	

Reference section(s)	Requirement	Applies to subpart LL	Comment
63.2	Definitions	Yes	Reconstruction defined in § 63.842.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) and (2)	Prohibited activities	Yes.	
63.4(a)(3) through (5)		No	[Reserved].
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability.	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements.	Yes.	
63.5(b)(2)		No	[Reserved].
63.5(b)(3) and (4)		Yes.	
63.5(b)(5)		No	[Reserved].
63.5(b)(6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
63.5(e)	Approval of Construction/Reconstruction.	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review.	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability.	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Source Dates.	Yes	See § 847(a)(6) and (7).
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Source Dates	No	See § 847(a).
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].
63.6(e)(1)(i)		No	See §§ 63.843(f) and 63.844(f) for general duty requirement.
63.6(e)(1)(ii)		No.	
63.6(e)(1)(iii)		Yes.	
63.6(e)(2)		No	[Reserved].
63.6(e)(3)	Startup, Shutdown and Malfunction Plan.	No.	
63.6(f)(1)	Compliance with Emissions Standards.	No.	
63.6(f)(2)	Methods/Finding of Compliance	Yes.	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards.	Only in § 63.845	Opacity standards applicable only when incorporating the NSPS requirements under § 63.845.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability.	Yes.	
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing facilities	Yes.	
63.7(e)(1)	Conduct of Tests	No	See § 63.847(d).
63.7(e)(2) through (4)		Yes.	
63.7(f), (g), (h)	Alternative Test Method	Yes.	
63.8(a)(1) and (2)	Monitoring Requirements Applicability.	Yes.	
63.8(a)(3)		No	[Reserved].
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1)(i)		No	See §§ 63.843(f) and 63.844(f) for general duty requirement.
63.8(c)(1)(ii)		Yes.	
63.8(c)(1)(iii)		No.	
63.8(c)(2) through (d)(2)		Yes.	
63.8(d)(3)		Yes, except for last sentence.	
63.8(e) through (g)		Yes.	
63.9(a)	Notification Requirements Applicability.	Yes.	
63.9(b)	Initial Notifications	Yes	Notification of re-start specified in § 63.850(a)(9).

Reference section(s)	Requirement	Applies to subpart LL	Comment
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements.	Yes.	
63.9(e)	Notification of Performance Test	No.	
63.9(f)	Notification of VE/Opacity Test	No.	
63.9(g)	Additional CMS Notifications	No.	
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.9(k)	Electronic reporting procedures	Yes	Only as specified in § 63.9(j).
63.10(a)	Recordkeeping/Reporting Applicability.	Yes.	
63.10(b)(1)	General Recordkeeping Requirements.	Yes.	
63.10(b)(2)(i)		No.	
63.10(b)(2)(ii)		No	See §§ 63.850(e)(4)(xvi) and (xvii) for recordkeeping of occurrence and duration of malfunctions and recordkeeping of actions taken during malfunction.
63.10(b)(2)(iii)		Yes.	
63.10(b)(2)(iv) and (v)		No.	
63.10(b)(2)(vi) through (xiv)		Yes.	
63.(10)(b)(3)		Yes.	
63.10(c)(1) through (9)		Yes.	
63.10(c)(10) and (11)		No	See §§ 63.850(e)(4)(xvi) and (xvii) for recordkeeping of malfunctions.
63.10(c)(12) through (14)		Yes.	
63.10(c)(15)		No.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)		No	See § 63.850(b).
63.10(d)(3) and (4)		Yes.	
63.10(d)(5)	Startup-Shutdown and Malfunction Reports.	No	See § 63.850(d)(2) for reporting of malfunctions.
63.10(e) and (f)	Additional CMS Reports and Recordkeeping/Reporting Waiver.	Yes.	
63.11	Control Device/work practices requirements Applicability.	No.	
63.12	State Authority and Delegations	Yes.	
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	
63.16	Performance Track Provisions	No.	

[80 FR 62425, Oct. 15, 2015, as amended at 85 FR 73896, Nov. 19, 2020]

Subpart MM—National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

SOURCE: 66 FR 3193, Jan. 12, 2001, unless otherwise noted.

§ 63.860 Applicability and designation of affected source.

(a) The requirements of this subpart apply to the owner or operator of each kraft, soda, sulfite, or stand-alone semichemical pulp mill that is a major source of hazardous air pollutants (HAP) emissions as defined in § 63.2.

(b) *Affected sources.* The requirements of this subpart apply to each new or existing affected source listed in paragraphs (b)(1) through (7) of this section:

(1) Each existing chemical recovery system (as defined in § 63.861) located at a kraft or soda pulp mill.

(2) Each new nondirect contact evaporator (NDCE) recovery furnace and associated smelt dissolving tank(s) located at a kraft or soda pulp mill.

(3) Each new direct contact evaporator (DCE) recovery furnace system (as defined in § 63.861) and associated

smelt dissolving tank(s) located at a kraft or soda pulp mill.

(4) Each new lime kiln located at a kraft or soda pulp mill.

(5) Each new or existing sulfite combustion unit located at a sulfite pulp mill, except such existing units at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. AP–10).

(6) Each new or existing semichemical combustion unit located at a stand-alone semichemical pulp mill.

(7) The requirements of the alternative standard in §63.862(d) apply to the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14).

(c) The requirements of the General Provisions in subpart A of this part that apply to the owner or operator subject to the requirements of this subpart are identified in Table 1 to this subpart.

(d) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[66 FR 3193, Jan. 12, 2001, as amended at 68 FR 7713, Feb. 18, 2003; 82 FR 47347, Oct. 11, 2017]

§63.861 Definitions.

All terms used in this subpart are defined in the Clean Air Act, in subpart A of this part, or in this section. For the purposes of this subpart, if the same term is defined in subpart A or any other subpart of this part and in this section, it must have the meaning given in this section.

Bag leak detection system means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative PM loadings.

Black liquor means spent cooking liquor that has been separated from the pulp produced by the kraft, soda, or semichemical pulping process.

Black liquor oxidation (BLO) system means the vessels used to oxidize the black liquor, with air or oxygen, and the associated storage tank(s).

Black liquor solids (BLS) means the dry weight of the solids in the black liquor that enters the recovery furnace or semichemical combustion unit.

Black liquor solids firing rate means the rate at which black liquor solids are fed to the recovery furnace or the semichemical combustion unit.

Chemical recovery combustion source means any source in the chemical recovery area of a kraft, soda, sulfite or stand-alone semichemical pulp mill that is an NDCE recovery furnace, a DCE recovery furnace system, a smelt dissolving tank, a lime kiln, a sulfite combustion unit, or a semichemical combustion unit.

Chemical recovery system means all existing DCE and NDCE recovery furnaces, smelt dissolving tanks, and lime kilns at a kraft or soda pulp mill. Each existing recovery furnace, smelt dissolving tank, or lime kiln is considered a process unit within a chemical recovery system.

Direct contact evaporator (DCE) recovery furnace means a kraft or soda recovery furnace equipped with a direct contact evaporator that concentrates strong black liquor by direct contact between the hot recovery furnace exhaust gases and the strong black liquor.

Direct contact evaporator (DCE) recovery furnace system means a direct contact evaporator recovery furnace and any black liquor oxidation system, if present, at the pulp mill.

Dry electrostatic precipitator (ESP) system means an electrostatic precipitator with a dry bottom (*i.e.,* no black liquor, water, or other fluid is used in the ESP bottom) and a dry particulate matter return system (*i.e.,* no black liquor, water, or other fluid is used to transport the collected PM to the mix tank).

Fabric filter means an air pollution control device used to capture PM by filtering a gas stream through filter media; also known as a baghouse.

Hazardous air pollutants (HAP) metals means the sum of all emissions of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A–8).

Hog fuel dryer means the equipment that combusts fine particles of wood waste (hog fuel) in a fluidized bed and directs the heated exhaust stream to a rotary dryer containing wet hog fuel to be dried prior to combustion in the hog fuel boiler at Cosmo Specialty Fibers' Cosmopolis, Washington facility. The hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility is Emission Unit no. HD–14.

Kraft pulp mill means any stationary source that produces pulp from wood by cooking (digesting) wood chips in a solution of sodium hydroxide and sodium sulfide. The recovery process used to regenerate cooking chemicals is also considered part of the kraft pulp mill.

Kraft recovery furnace means a recovery furnace that is used to burn black liquor produced by the kraft pulping process, as well as any recovery furnace that burns black liquor produced from both the kraft and semichemical pulping processes, and includes the direct contact evaporator, if applicable.

Lime kiln means the combustion unit (*e.g.,* rotary lime kiln or fluidized-bed calciner) used at a kraft or soda pulp mill to calcine lime mud, which consists primarily of calcium carbonate, into quicklime, which is calcium oxide (CaO).

Lime production rate means the rate at which dry lime, measured as CaO, is produced in the lime kiln.

Method detection limit means the minimum concentration of an analyte that can be determined with 99 percent confidence that the true value is greater than zero.

Modification means, for the purposes of §63.862(a)(1)(ii)(D)(*1*), any physical change (excluding any routine part replacement or maintenance) or operational change that is made to the air pollution control device that could result in an increase in PM emissions.

Nondetect data means, for the purposes of this subpart, any value that is below the method detection limit.

Nondirect contact evaporator (NDCE) recovery furnace means a kraft or soda recovery furnace that burns black liquor that has been concentrated by indirect contact with steam.

No-load fan amperage means, for purposes of this subpart, the amperage pulled by the fan motor when the fan is operating under no-load, specifically the amperage value the motor would use if the fan belt was removed or the coupling to a direct drive fan was disconnected.

Particulate matter (PM) means total filterable particulate matter as measured by EPA Method 5 (40 CFR part 60, appendix A–3), EPA Method 17 (§63.865(b)(1)) (40 CFR part 60, appendix A–6), or EPA Method 29 (40 CFR part 60, appendix A–8).

Process unit means an existing DCE or NDCE recovery furnace, smelt dissolving tank, or lime kiln in a chemical recovery system at a kraft or soda mill.

Recovery furnace means an enclosed combustion device where concentrated black liquor produced by the kraft or soda pulping process is burned to recover pulping chemicals and produce steam.

Regenerative thermal oxidizer (RTO) means a thermal oxidizer that transfers heat from the exhaust gas stream to the inlet gas stream by passing the exhaust stream through a bed of ceramic stoneware or other heat-absorbing medium before releasing it to the atmosphere, then reversing the gas flow so the inlet gas stream passes through the heated bed, raising the temperature of the inlet stream close to or at its ignition temperature.

Semichemical combustion unit means any equipment used to combust or pyrolyze black liquor at stand-alone

semichemical pulp mills for the purpose of chemical recovery.

Similar process units means all existing DCE and NDCE recovery furnaces, smelt dissolving tanks, or lime kilns at a kraft or soda pulp mill.

Smelt dissolving tank (SDT) means a vessel used for dissolving the smelt collected from a kraft or soda recovery furnace.

Soda pulp mill means any stationary source that produces pulp from wood by cooking (digesting) wood chips in a sodium hydroxide solution. The recovery process used to regenerate cooking chemicals is also considered part of the soda pulp mill.

Soda recovery furnace means a recovery furnace used to burn black liquor produced by the soda pulping process and includes the direct contact evaporator, if applicable.

Stand-alone semichemical pulp mill means any stationary source that produces pulp from wood by partially digesting wood chips in a chemical solution followed by mechanical defibrating (grinding), and has an onsite chemical recovery process that is not integrated with a kraft pulp mill.

Sulfite combustion unit means a combustion device, such as a recovery furnace or fluidized-bed reactor, where spent liquor from the sulfite pulping process (i.e., red liquor) is burned to recover pulping chemicals.

Sulfite pulp mill means any stationary source that produces pulp from wood by cooking (digesting) wood chips in a solution of sulfurous acid and bisulfite ions. The recovery process used to regenerate cooking chemicals is also considered part of the sulfite pulp mill.

Total hydrocarbons (THC) means the sum of organic compounds measured as carbon using EPA Method 25A (40 CFR part 60, appendix A–7).

[66 FR 3193, Jan. 12, 2001, as amended at 66 FR 16408, Mar. 26, 2001; 68 FR 7713, Feb. 18, 2003; 82 FR 47347, Oct. 11, 2017; 85 FR 70493, Nov. 5, 2020]

§ 63.862 Standards.

(a) *Standards for HAP metals: existing sources.* (1) Each owner or operator of an existing kraft or soda pulp mill must comply with the requirements of either paragraph (a)(1)(i) or (ii) of this section.

(i) Each owner or operator of a kraft or soda pulp mill must comply with the PM emissions limits in paragraphs (a)(1)(i)(A) through (C) of this section.

(A) The owner or operator of each existing kraft or soda recovery furnace must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 gram per dry standard cubic meter (g/dscm) (0.044 grain per dry standard cubic foot (gr/dscf)) corrected to 8 percent oxygen.

(B) The owner or operator of each existing kraft or soda smelt dissolving tank must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 kilogram per megagram (kg/Mg) (0.20 pound per ton (lb/ton)) of black liquor solids fired.

(C) The owner or operator of each existing kraft or soda lime kiln must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.15 g/dscm (0.064 gr/dscf) corrected to 10 percent oxygen.

(ii) As an alternative to meeting the requirements of § 63.862(a)(1)(i), each owner or operator of a kraft or soda pulp mill may establish PM emissions limits for each existing kraft or soda recovery furnace, smelt dissolving tank, and lime kiln that operates 6,300 hours per year or more by:

(A) Establishing an overall PM emission limit for each existing process unit in the chemical recovery system at the kraft or soda pulp mill using the methods in § 63.865(a)(1) and (2).

(B) The emissions limits for each kraft recovery furnace, smelt dissolving tank, and lime kiln that are used to establish the overall PM limit in paragraph (a)(1)(ii)(A) of this section must not be less stringent than the emissions limitations required by § 60.282 of part 60 of this chapter for any kraft recovery furnace, smelt dissolving tank, or lime kiln that is subject to the requirements of § 60.282.

(C) Each owner or operator of an existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln must ensure that the PM emissions discharged to the atmosphere from each of these sources are less than or equal to the applicable PM emissions limits,

established using the methods in § 63.865(a)(1), that are used to establish the overall PM emissions limits in paragraph (a)(1)(ii)(A) of this section.

(D) Each owner or operator of an existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln must reestablish the emissions limits determined in paragraph (a)(1)(ii)(A) of this section if either of the actions in paragraphs (a)(1)(ii)(D)(*1*) and (*2*) of this section are taken:

(*1*) The air pollution control system for any existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln for which an emission limit was established in paragraph (a)(1)(ii)(A) of this section is modified (as defined in § 63.861) or replaced; or

(*2*) Any kraft or soda recovery furnace, smelt dissolving tank, or lime kiln for which an emission limit was established in paragraph (a)(1)(ii)(A) of this section is shut down for more than 60 consecutive days.

(iii) Each owner or operator of an existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln that operates less than 6,300 hours per year must comply with the applicable PM emissions limits for that process unit provided in paragraph (a)(1)(i) of this section.

(2) Except as specified in paragraph (d) of this section, the owner or operator of each existing sulfite combustion unit must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.092 g/dscm (0.040 gr/dscf) corrected to 8 percent oxygen.

(b) *Standards for HAP metals: new sources.* (1) The owner or operator of any new kraft or soda recovery furnace must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.034 g/dscm (0.015 gr/dscf) corrected to 8 percent oxygen.

(2) The owner or operator of any new kraft or soda smelt dissolving tank must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.06 kg/Mg (0.12 lb/ton) of black liquor solids fired.

(3) The owner or operator of any new kraft or soda lime kiln must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.023 g/dscm (0.010 gr/dscf) corrected to 10 percent oxygen.

(4) The owner or operator of any new sulfite combustion unit must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.046 g/dscm (O.020 gr/dscf) corrected to 8 percent oxygen.

(c) *Standards for gaseous organic HAP.* (1) The owner or operator of any new recovery furnace at a kraft or soda pulp mill must ensure that the concentration of gaseous organic HAP, as measured by methanol, discharged to the atmosphere is no greater than 0.012 kg/Mg (0.025 lb/ton) of black liquor solids fired.

(2) The owner or operator of each existing or new semichemical combustion unit must ensure that:

(i) The concentration of gaseous organic HAP, as measured by total hydrocarbons reported as carbon, discharged to the atmosphere is less than or equal to 1.49 kg/Mg (2.97 lb/ton) of black liquor solids fired; or

(ii) The gaseous organic HAP emissions, as measured by total hydrocarbons reported as carbon, are reduced by at least 90 percent prior to discharge of the gases to the atmosphere.

(d) *Alternative standard.* As an alternative to meeting the requirements of paragraph (a)(2) of this section, the owner or operator of the existing hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14) must ensure that the mass of PM in the exhaust gases discharged to the atmosphere from the hog fuel dryer is less than or equal to 4.535 kilograms per hour (kg/hr) (10.0 pounds per hour (lb/hr)).

[66 FR 3193, Jan. 12, 2001, as amended at 68 FR 7713, Feb. 18, 2003; 68 FR 67954, Dec. 5, 2003; 82 FR 47347, Oct. 11, 2017]

§ 63.863 Compliance dates.

(a) The owner or operator of an existing affected source or process unit must comply with the requirements in this subpart no later than March 13, 2004, except as noted in paragraph (c) of this section.

(b) The owner or operator of a new affected source that has an initial startup date after March 13, 2001 must comply with the requirements in this subpart immediately upon startup of the affected source, except as specified in § 63.6(b).

(c) The owner or operator of an existing source or process unit must comply with the revised requirements published on October 11, 2017 no later than October 11, 2019, with the exception of the following:

(1) The first of the 5-year periodic performance tests must be conducted by October 13, 2020, and thereafter within 5 years following the previous performance test; and

(2) The date to submit performance test data through the CEDRI is within 60 days after the date of completing each performance test.

[66 FR 3193, Jan. 12, 2001, as amended at 66 FR 16408, Mar. 26, 2001; 66 FR 37593, July 19, 2001; 68 FR 46108, Aug. 5, 2003; 82 FR 47347, Oct. 11, 2017]

§ 63.864 Monitoring requirements.

(a)–(c) [Reserved]

(d) *Continuous opacity monitoring system (COMS).* The owner or operator of each affected kraft or soda recovery furnace or lime kiln equipped with an ESP must install, calibrate, maintain, and operate a COMS in accordance with Performance Specification 1 (PS–1) in appendix B to 40 CFR part 60 and the provisions in §§ 63.6(h) and 63.8 and paragraphs (d)(3) and (4) of this section.

(1)–(2) [Reserved]

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) As specified in § 63.8(g)(2), each 6-minute COMS data average must be calculated as the average of 36 or more data points, equally spaced over each 6-minute period.

(e) *Continuous parameter monitoring system (CPMS).* For each CPMS required in this section, the owner or operator of each affected source or process unit must meet the requirements in paragraphs (e)(1) through (14) of this section.

(1) For any kraft or soda recovery furnace or lime kiln using an ESP emission control device, the owner or operator must maintain proper operation of the ESP's automatic voltage control (AVC).

(2) For any kraft or soda recovery furnace or lime kiln using an ESP followed by a wet scrubber, the owner or operator must follow the parameter monitoring requirements specified in paragraphs (e)(1) and (10) of this section. The opacity monitoring system specified in paragraph (d) of this section is not required for combination ESP/wet scrubber control device systems.

(3)–(9) [Reserved]

(10) The owner or operator of each affected kraft or soda recovery furnace, kraft or soda lime kiln, sulfite combustion unit, or kraft or soda smelt dissolving tank equipped with a wet scrubber must install, calibrate, maintain, and operate a CPMS that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in § 63.8(c), as well as the procedures in paragraphs (e)(10)(i) and (ii) of this section:

(i) A monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate to within a gage pressure of ±500 pascals (±2 inches of water gage pressure); and

(ii) A monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate.

(iii) As an alternative to pressure drop measurement under paragraph (e)(10)(i) of this section, a monitoring device for measurement of fan amperage or fan revolutions per minute (RPM) may be used for smelt dissolving tank dynamic scrubbers that operate at ambient pressure or for low-energy entrainment scrubbers where the fan speed does not vary.

(11) The owner or operator of each affected semichemical combustion unit equipped with an RTO must install, calibrate, maintain, and operate a

CPMS that can be used to determine and record the operating temperature of the RTO at least once every successive 15-minute period using the procedures in §63.8(c). The monitor must compute and record the operating temperature at the point of incineration of effluent gases that are emitted using a temperature monitor accurate to within ±1 percent of the temperature being measured.

(12) The owner or operator of the affected hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14) must meet the requirements in paragraphs (e)(12)(i) through (xi) of this section for each bag leak detection system.

(i) The owner or operator must install, calibrate, maintain, and operate each triboelectric bag leak detection system according to EPA–454/R–98–015, ''Fabric Filter Bag Leak Detection Guidance'' (incorporated by reference—see §63.14). The owner or operator must install, calibrate, maintain, and operate other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations.

(ii) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(iii) The bag leak detection system sensor must provide an output of relative PM loadings.

(iv) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(v) The bag leak detection system must be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(vi) For positive pressure fabric filter systems, a bag leak detector must be installed in each baghouse compartment or cell.

(vii) For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(ix) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the ''Fabric Filter Bag Leak Detection Guidance'' (incorporated by reference—see §63.14).

(x) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted except as detailed in the site-specific monitoring plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition, as defined in section 5.2 of the ''Fabric Filter Bag Leak Detection Guidance,'' (incorporated by reference—see §63.14). Record each adjustment.

(xi) The owner or operator must record the results of each inspection, calibration, and validation check.

(13) The owner or operator of each affected source or process unit that uses an ESP, wet scrubber, RTO, or fabric filter may monitor alternative control device operating parameters subject to prior written approval by the Administrator. The request for approval must also include the manner in which the parameter operating limit is to be set.

(14) The owner or operator of each affected source or process unit that uses an air pollution control system other than an ESP, wet scrubber, RTO, or fabric filter must provide to the Administrator an alternative monitoring request that includes a description of the control device, test results verifying the performance of the control device, the appropriate operating parameters that will be monitored, how the operating limit is to be set, and the frequency of measuring and recording to establish continuous compliance with the standards. The alternative monitoring request is subject to

the Administrator's approval. The owner or operator of the affected source or process unit must install, calibrate, operate, and maintain the monitor(s) in accordance with the alternative monitoring request approved by the Administrator. The owner or operator must include in the information submitted to the Administrator proposed performance specifications and quality assurance procedures for the monitors. The Administrator may request further information and will approve acceptable test methods and procedures. The owner or operator must monitor the parameters as approved by the Administrator using the methods and procedures in the alternative monitoring request.

(f) *Data quality assurance.* The owner or operator shall keep CMS data quality assurance procedures consistent with the requirements in § 63.8(d)(1) and (2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan in § 63.8(d)(2) is revised, the owner or operator shall keep previous (*i.e.*, superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under § 63.8(d)(2).

(g) *Gaseous organic HAP.* The owner or operator of each affected source or process unit complying with the gaseous organic HAP standard of § 63.862(c)(1) through the use of an NDCE recovery furnace equipped with a dry ESP system is not required to conduct any continuous monitoring to demonstrate compliance with the gaseous organic HAP standard.

(h) *Monitoring data.* As specified in § 63.8(g)(5), monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high level adjustments must not be included in any data average computed under this subpart.

(i) [Reserved]

(j) *Determination of operating limits.* (1) During the initial or periodic performance test required in § 63.865, the owner or operator of any affected source or process unit must establish operating limits for the monitoring parameters in paragraphs (e)(10) through (14) of this section, as appropriate; or

(2) The owner or operator may base operating limits on values recorded during previous performance tests or conduct additional performance tests for the specific purpose of establishing operating limits, provided that data used to establish the operating limits are or have been obtained during testing that used the test methods and procedures required in this subpart. The owner or operator of the affected source or process unit must certify that all control techniques and processes have not been modified subsequent to the testing upon which the data used to establish the operating parameter limits were obtained.

(3) The owner or operator of an affected source or process unit may establish expanded or replacement operating limits for the monitoring parameters listed in paragraphs (e)(10) through (14) of this section and established in paragraph (j)(1) or (2) of this section during subsequent performance tests using the test methods in § 63.865.

(4) The owner or operator of the affected source or process unit must continuously monitor each parameter and determine the arithmetic average value of each parameter during each performance test run. Multiple performance tests may be conducted to establish a range of parameter values. Operating outside a previously established parameter limit during a performance test to expand the operating limit range does not constitute a monitoring exceedance. Operating limits must be confirmed or reestablished during performance tests.

(5) New, expanded, or replacement operating limits for the monitoring parameter values listed in paragraphs (e)(10) through (14) of this section should be determined as described in paragraphs (j)(5)(i) and (ii) of this section.

(i) The owner or operator of an affected source or process unit that uses

a wet scrubber must set minimum operating limits as described in paragraph (j)(5)(i)(A) and (B) of this section.

(A) Set the minimum scrubbing liquid flow rate operating limit as the lowest of the 1-hour average scrubbing liquid flow rate values associated with each test run demonstrating compliance with the applicable emission limit in § 63.862.

(B) Set the minimum scrubber pressure drop operating limit as the lowest of the 1-hour average pressure drop values associated with each test run demonstrating compliance with the applicable emission limit in § 63.862; or for a smelt dissolving tank dynamic wet scrubber operating at ambient pressure or for low-energy entrainment scrubbers where fan speed does not vary, set the minimum operating limit using one of the methods in paragraph (j)(5)(i)(B)(*1*) through (*3*) of this section.

(*1*) The minimum fan amperage operating limit must be set as the midpoint between the lowest of the 1-hour average fan amperage values associated with each test run demonstrating compliance with the applicable emission limit in § 63.862 and the no-load amperage value. The no-load amperage value must be determined using manufacturers specifications, or by performing a no-load test of the fan motor for each smelt dissolving tank scrubber; or

(*2*) The minimum percent full load amperage (PFLA) to the fan motor must be set as the percent of full load amperage under no-load, plus 10 percent. The PFLA is calculated by dividing the no-load amperage value by the highest of the 1-hour average fan amperage values associated with each test run demonstrating compliance with the applicable emission limit in § 63.862 multiplied by 100 and then adding 10 percent. The no-load amperage value must be determined using manufacturers specifications, or by performing a no-load test of the fan motor for each smelt dissolving tank scrubber; or

(*3*) The minimum RPM must be set as 5 percent lower than the lowest 1-hour average RPM associated with each test run demonstrating compliance with the applicable emission limit.

(ii) [Reserved]

(k) *On-going compliance provisions.* (1) Following the compliance date, owners or operators of all affected sources or process units are required to implement corrective action if the monitoring exceedances in paragraphs (k)(1)(i) through (vii) of this section occur during times when spent pulping liquor or lime mud is fed (as applicable). Corrective action can include completion of transient startup and shutdown conditions as expediently as possible.

(i) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP, when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity;

(ii) For a new or existing kraft or soda recovery furnace, kraft or soda smelt dissolving tank, kraft or soda lime kiln, or sulfite combustion unit equipped with a wet scrubber, when any 3-hour average parameter value is below the minimum operating limit established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(iii) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP followed by a wet scrubber, when any 3-hour average scrubber parameter value is below the minimum operating limit established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(iv) For a new or existing semichemical combustion unit equipped with an RTO, when any 1-hour average temperature falls below the minimum temperature operating limit established in paragraph (j) of this section;

(v) For the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14), when the bag leak detection system alarm sounds;

(vi) For an affected source or process unit equipped with an ESP, wet scrubber, RTO, or fabric filter and monitoring alternative operating parameters established in paragraph (e)(13) of this section, when any 3-hour average value does not meet the operating limit established in paragraph (j) of this section; and

(vii) For an affected source or process unit equipped with an alternative air pollution control system and monitoring operating parameters approved by the Administrator as established in paragraph (e)(14) of this section, when any 3-hour average value does not meet the operating limit established in paragraph (j) of this section.

(2) Following the compliance date, owners or operators of all affected sources or process units are in violation of the standards of § 63.862 if the monitoring exceedances in paragraphs (k)(2)(i) through (ix) of this section occur during times when spent pulping liquor or lime mud is fed (as applicable):

(i) For an existing kraft or soda recovery furnace equipped with an ESP, when opacity is greater than 35 percent for 2 percent or more of the operating time within any semiannual period;

(ii) For a new kraft or soda recovery furnace equipped with an ESP, when opacity is greater than 20 percent for 2 percent or more of the operating time within any semiannual period;

(iii) For a new or existing kraft or soda lime kiln equipped with an ESP, when opacity is greater than 20 percent for 3 percent or more of the operating time within any semiannual period;

(iv) For a new or existing kraft or soda recovery furnace, kraft or soda smelt dissolving tank, kraft or soda lime kiln, or sulfite combustion unit equipped with a wet scrubber, when six or more 3-hour average parameter values within any 6-month reporting period are below the minimum operating limits established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(v) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP followed by a wet scrubber, when six or more 3-hour average scrubber parameter values within any 6-month reporting period are outside the range of values established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(vi) For a new or existing semichemical combustion unit equipped with an RTO, when any 3-hour average temperature falls below the temperature established in paragraph (j) of this section;

(vii) For the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14), when corrective action is not initiated within 1 hour of a bag leak detection system alarm and the alarm is engaged for more than 5 percent of the total operating time in a 6-month block reporting period. In calculating the operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; if corrective action is required, each alarm is counted as a minimum of 1 hour; if corrective action is not initiated within 1 hour, the alarm time is counted as the actual amount of time taken to initiate corrective action;

(viii) For an affected source or process unit equipped with an ESP, wet scrubber, RTO, or fabric filter and monitoring alternative operating parameters established in paragraph (e)(13) of this section, when six or more 3-hour average values within any 6-month reporting period do not meet the operating limits established in paragraph (j) of this section; and

(ix) For an affected source or process unit equipped with an alternative air pollution control system and monitoring operating parameters approved by the Administrator as established in paragraph (e)(14) of this section, when six or more 3-hour average values within any 6-month reporting period do not meet the operating limits established in paragraph (j) of this section.

(3) For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period.

[68 FR 7713, Feb. 18, 2003, as amended at 68 FR 42605, July 18, 2003; 68 FR 67955, Dec. 5, 2003; 71 FR 20458, Apr. 20, 2006; 82 FR 47348, Oct. 11, 2017; 85 FR 70493, Nov. 5, 2020]

§ 63.865 Performance test requirements and test methods.

The owner or operator of each affected source or process unit subject to the requirements of this subpart is required to conduct an initial performance test and periodic performance

tests using the test methods and procedures listed in § 63.7 and paragraph (b) of this section. The owner or operator must conduct the first of the periodic performance tests within 3 years of the effective date of the revised standards and thereafter within 5 years following the previous performance test. Performance tests shall be conducted based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. 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.

(a) The owner or operator of a process unit seeking to comply with a PM emission limit under § 63.862(a)(1)(ii)(A) must use the procedures in paragraphs (a)(1) and (2) of this section:

(1) Determine the overall PM emission limit for the chemical recovery system at the mill using Equation 1 of this section as follows:

$$EL_{PM} = \frac{\left[\left(C_{ref,RF}\right)\left(Q_{RFtot}\right)+\left(C_{ref,LK}\right)\left(Q_{LKtot}\right)\right](F1)}{\left(BLS_{tot}\right)} + ER1_{ref,SDT} \qquad \text{(Eq. 1)}$$

Where:

EL_{PM} = overall PM emission limit for all existing process units in the chemical recovery system at the kraft or soda pulp mill, kg/Mg (lb/ton) of black liquor solids fired.

$C_{ref,\ RF}$ = reference concentration of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen for existing kraft or soda recovery furnaces.

Q_{RFtot} = sum of the average volumetric gas flow rates measured during the performance test and corrected to 8 percent oxygen for all existing recovery furnaces in the chemical recovery system at the kraft or soda pulp mill, dry standard cubic meters per minute (dscm/min) (dry standard cubic feet per minute (dscf/min)).

$C_{ref,LK}$ = reference concentration of 0.15 g/dscm (0.064 gr/dscf) corrected to 10 percent oxygen for existing kraft or soda lime kilns.

Q_{LKtot} = sum of the average volumetric gas flow rates measured during the performance test and corrected to 10 percent oxygen for all existing lime kilns in the chemical recovery system at the kraft or soda pulp mill, dscm/min (dscf/min).

F1 = conversion factor, 1.44 minutes·kilogram/day·gram (min·kg/d·g) (0.206 minutes·pound/day·grain (min·b/d·gr)).

BLS_{tot} = sum of the average black liquor solids firing rates of all existing recovery furnaces in the chemical recovery system at the kraft or soda pulp mill measured during the performance test, megagrams per day (Mg/d) (tons per day (ton/d)) of black liquor solids fired.

$ER1_{ref,\ SDT}$ = reference emission rate of 0.10 kg/Mg (0.20 lb/ton) of black liquor solids fired for existing kraft or soda smelt dissolving tanks.

(2) Establish an emission limit for each kraft or soda recovery furnace, smelt dissolving tank, and lime kiln; and, using these emissions limits, determine the overall PM emission rate for the chemical recovery system at the mill using the procedures in paragraphs (a)(2)(i) through (v) of this section, such that the overall PM emission rate calculated in paragraph (a)(2)(v) of this section is less than or equal to the overall PM emission limit determined in paragraph (a)(1) of this section, as appropriate.

(i) The PM emission rate from each affected recovery furnace must be determined using Equation 2 of this section as follows:

$$ER_{RF} = (F1)(C_{EL,\,RF})(Q_{RF})/(BLS) \qquad (Eq.\ 2)$$

Where:

ER_{RF} = emission rate from each recovery furnace, kg/Mg (lb/ton) of black liquor solids.

F1 = conversion factor, 1.44 min·kg/d·g (0.206 min·/d·gr).

$C_{EL,\,RF}$ = PM emission limit proposed by owner or operator for the recovery furnace, g/dscm (gr/dscf) corrected to 8 percent oxygen.

Q_{RF} = average volumetric gas flow rate from the recovery furnace measured during the performance test and corrected to 8 percent oxygen, dscm/min (dscf/min).

BLS = average black liquor solids firing rate of the recovery furnace measured during the performance test, Mg/d (ton/d) of black liquor solids.

(ii) The PM emission rate from each affected smelt dissolving tank must be determined using Equation 3 of this section as follows:

$$ER_{SDT} = (F1)(C_{EL,\,SDT})(Q_{SDT})/(BLS) \qquad (Eq.\ 3)$$

Where:

ER_{SDT} = emission rate from each SDT, kg/Mg (lb/ton) of black liquor solids fired.

F1 = conversion factor, 1.44 min·kg/d•g (0.206 min·lb/d·gr).

$C_{EL,\,SDT}$ = PM emission limit proposed by owner or operator for the smelt dissolving tank, g/dscm (gr/dscf).

Q_{SDT} = average volumetric gas flow rate from the smelt dissolving tank measured during the performance test, dscm/min (dscf/min).

BLS = average black liquor solids firing rate of the associated recovery furnace measured during the performance test, Mg/d (ton/d) of black liquorsolids fired. If more than one SDT is used to dissolve the smelt from a given recovery furnace, then the black liquor solids firing rate of the furnace must be proportioned according to the size of the SDT.

(iii) The PM emission rate from each affected lime kiln must be determined using Equation 4 of this section as follows:

$$ER_{LK} = (F1)(C_{EL,\,LK})(Q_{LK})(CaO_{tot}/BLS_{tot})/(CaO_{LK}) \qquad (Eq.\ 4)$$

Where:

ER_{LK} = emission rate from each lime kiln, kg/Mg (lb/ton) of black liquor solids.

F1 = conversion factor, 1.44 min·kg/d·g (0.206 min·lb/d·gr).

$C_{EL,LK}$ = PM emission limit proposed by owner or operator for the lime kiln, g/dscm (gr/dscf) corrected to 10 percent oxygen.

Q_{LK} = average volumetric gas flow rate from the lime kiln measured during the performance test and corrected to 10 percent oxygen, dscm/min (dscf/min).

CaO_{LK} = lime production rate of the lime kiln, measured as CaO during the performance test, Mg/d (ton/d) of CaO.

CaO_{tot} = sum of the average lime production rates for all existing lime kilns in the chemical recovery system at the mill measured as CaO during the performance test, Mg/d (ton/d).

BLS_{tot} = sum of the average black liquor solids firing rates of all recovery furnaces in the chemical recovery system at the mill measured during the performance test, Mg/d (ton/d) of black liquor solids.

(iv) If more than one similar process unit is operated in the chemical recovery system at the kraft or soda pulp mill, Equation 5 of this section must be used to calculate the overall PM emission rate from all similar process units in the chemical recovery system at the mill and must be used in determining the overall PM emission rate for the chemical recovery system at the mill:

$$ER_{PUtot} = ER_{PU1}(PR_{PU1}/PR_{tot}) + \ldots + (ER_{PUi})(PR_{PUi}/PR_{tot}) \qquad (Eq.\ 5)$$

Where:

ER_{PUtot} = overall PM emission rate from all similar process units, kg/Mg (lb/ton) of black liquor solids fired.

ER_{PU1} = PM emission rate from process unit No. 1, kg/Mg (lb/ton) of black liquor solids fired, calculated using Equation 2, 3, or 4 in paragraphs (a)(2)(i) through (iii) of this section.

PR_{PU1} = black liquor solids firing rate in Mg/d (ton/d) for process unit No. 1, if process unit is a recovery furnace or SDT. The CaO production rate in Mg/d (ton/d) for process unit No. 1, if process unit is a lime kiln.

PR_{tot} = total black liquor solids firing rate in Mg/d (ton/d) for all recovery furnaces in the chemical recovery system at the kraft or soda pulp mill if the similar process units are recovery furnaces or SDT, or the total CaO production rate in Mg/d (ton/d) for all lime kilns in the chemical recovery system at the mill if the similar process units are lime kilns.

ER_{PUi} = PM emission rate from process unit No. i, kg/Mg (lb/ton) of black liquor solids fired.

PR_{PUi} = black liquor solids firing rate in Mg/d (ton/d) for process unit No. i, if process unit is a recovery furnace or SDT. The CaO production rate in Mg/d (ton/d) for process unit No. i, if process unit is a lime kiln.

i = number of similar process units located in the chemical recovery system at the kraft or soda pulp mill.

(v) The overall PM emission rate for the chemical recovery system at the mill must be determined using Equation 6 of this section as follows:

$$ER_{tot} = ER_{RFtot} + ER_{SDTtot} + ER_{LKtot} \qquad (Eq.\ 6)$$

Where:

ER_{tot} = overall PM emission rate for the chemical recovery system at the mill, kg/Mg (lb/ton) of black liquor solids fired.

ER_{RFtot} = PM emission rate from all kraft or soda recovery furnaces, calculated using Equation 2 or 5 in paragraphs (a)(2)(i) and (iv) of this section, where applicable, kg/Mg (lb/ton) of black liquor solids fired.

ER_{SDTtot} = PM emission rate from all smelt dissolving tanks, calculated using Equation 3 or 5 in paragraphs (a)(2)(ii) and (iv) of this section, where applicable, kg/Mg (lb/ton) of black liquor solids fired.

ER_{LKtot} = PM emission rate from all lime kilns, calculated using Equation 4 or 5 in paragraphs (a)(2)(iii) and (iv) of this section, where applicable, kg/Mg (lb/ton) of black liquor solids fired.

(vi) After the Administrator has approved the PM emissions limits for each kraft or soda recovery furnace, smelt dissolving tank, and lime kiln, the owner or operator complying with an overall PM emission limit established in §63.862(a)(1)(ii) must demonstrate compliance with the HAP metals standard by demonstrating compliance with the approved PM emissions limits for each affected kraft or soda recovery furnace, smelt dissolving tank, and lime kiln, using the test methods and procedures in paragraph (b) of this section.

(b) The owner or operator seeking to determine compliance with §63.862(a), (b), or (d) must use the procedures in paragraphs (b)(1) through (6) of this section.

(1) For purposes of determining the concentration or mass of PM emitted from each kraft or soda recovery furnace, sulfite combustion unit, smelt dissolving tank, lime kiln, or the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14), Method 5 in appendix A–3 of 40 CFR part 60 or Method 29 in appendix A–8 of 40 CFR part 60 must be used, except that Method 17 in appendix A–6 of 40 CFR part 60 may be used in lieu of Method 5 or Method 29 if a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of Method 17, and the stack temperature is no greater than 205 °C (400 °F). For Methods 5, 29, and 17, the sampling time and sample volume for each run must be at least 60 minutes and 0.90 dscm (31.8 dscf), and water must be used as the

cleanup solvent instead of acetone in the sample recovery procedure.

(2) For sources complying with § 63.862(a) or (b), the PM concentration must be corrected to the appropriate oxygen concentration using Equation 7 of this section as follows:

$$C_{corr} = C_{meas} \times (20.9-X)/(20.9-Y) \quad \text{(Eq. 7)}$$

Where:

C_{corr} = the measured concentration corrected for oxygen, g/dscm (gr/dscf);

C_{meas} = the measured concentration uncorrected for oxygen, g/dscm (gr/dscf);

X = the corrected volumetric oxygen concentration (8 percent for kraft or soda recovery furnaces and sulfite combustion units and 10 percent for kraft or soda lime kilns); and

Y = the measured average volumetric oxygen concentration.

(3) Method 3A or 3B in appendix A–2 of 40 CFR part 60 must be used to determine the oxygen concentration. The voluntary consensus standard ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference—see § 63.14) may be used as an alternative to using Method 3B. The gas sample must be taken at the same time and at the same traverse points as the particulate sample.

(4) For purposes of complying with § 63.862(a)(1)(ii)(A), the volumetric gas flow rate must be corrected to the appropriate oxygen concentration using Equation 8 of this section as follows:

$$Q_{corr} = Q_{meas} \times (20.9-Y)/(20.9-X) \quad \text{(Eq. 8)}$$

Where:

Q_{corr} = the measured volumetric gas flow rate corrected for oxygen, dscm/min (dscf/min).

Q_{meas} = the measured volumetric gas flow rate uncorrected for oxygen, dscm/min (dscf/min).

Y = the measured average volumetric oxygen concentration.

X = the corrected volumetric oxygen concentration (8 percent for kraft or soda recovery furnaces and 10 percent for kraft or soda lime kilns).

(5)(i) For purposes of selecting sampling port location and number of traverse points, Method 1 or 1A in appendix A–1 of 40 CFR part 60 must be used;

(ii) For purposes of determining stack gas velocity and volumetric flow rate, Method 2, 2A, 2C, 2D, or 2F in appendix A–1 of 40 CFR part 60 or Method 2G in appendix A–2 of 40 CFR part 60 must be used;

(iii) For purposes of conducting gas analysis, Method 3, 3A, or 3B in appendix A–2 of 40 CFR part 60 must be used. The voluntary consensus standard ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference—see § 63.14) may be used as an alternative to using Method 3B; and

(iv) For purposes of determining moisture content of stack gas, Method 4 in appendix A–3 of 40 CFR part 60 must be used.

(6) Process data measured during the performance test must be used to determine the black liquor solids firing rate on a dry basis and the CaO production rate.

(c) The owner or operator of each affected source or process unit complying with the gaseous organic HAP standard in § 63.862(c)(1) must demonstrate compliance according to the provisions in paragraphs (c)(1) and (2) of this section.

(1) The owner or operator complying through the use of an NDCE recovery furnace equipped with a dry ESP system is required to conduct periodic performance testing using Method 308 in appendix A of this part, as well as the methods listed in paragraphs (b)(5)(i) through (iv) of this section to

demonstrate compliance with the gaseous organic HAP standard. The requirements and equations in paragraph (c)(2) of this section must be met and utilized, respectively.

(2) The owner or operator complying without using an NDCE recovery furnace equipped with a dry ESP system must use Method 308 in appendix A of this part, as well as the methods listed in paragraphs (b)(5)(i) through (iv) of this section. The sampling time and sample volume for each Method 308 run must be at least 60 minutes and 0.014 dscm (0.50 dscf), respectively.

(i) The emission rate from any new NDCE recovery furnace must be determined using Equation 9 of this section as follows:

$$ER_{NDCE} = \frac{(MR_{meas})}{BLS} \qquad \text{(Eq. 9)}$$

Where:

ER_{NDCE} = Methanol emission rate from the NDCE recovery furnace, kg/Mg (lb/ton) of black liquor solids fired;

MR_{meas} = Measured methanol mass emission rate from the NDCE recovery furnace, kg/hr (lb/hr); and

BLS = Average black liquor solids firing rate of the NDCE recovery furnace, megagrams per hour (Mg/hr) (tons per hour (ton/hr)) determined using process data measured during the performance test.

(ii) The emission rate from any new DCE recovery furnace system must be determined using Equation 10 of this section as follows:

$$ER_{DCE} = \left[\frac{(MR_{meas,\,RF})}{BLS_{RF}}\right] + \left[\frac{MR_{meas,\,BLO}}{BLS_{BLO}}\right] \qquad \text{(Eq. 10)}$$

Where:

ER_{DCE} = Methanol emission rate from each DCE recovery furnace system, kg/Mg (lb/ton) of black liquor solids fired;

$MR_{meas,RF}$ = Average measured methanol mass emission rate from each DCE recovery furnace, kg/hr (lb/hr);

$MR_{meas,BLO}$ = Average measured methanol mass emission rate from the black liquor oxidation system, kg/hr (lb/hr);

BLS_{RF} = Average black liquor solids firing rate for each DCE recovery furnace, Mg/hr (ton/hr) determined using process data measured during the performance test; and

BLS_{BLO} = The average mass rate of black liquor solids treated in the black liquor oxidation system, Mg/hr (ton/hr) determined using process data measured during the performance test.

(d) The owner or operator seeking to determine compliance with the gaseous organic HAP standards in § 63.862(c)(2) for semichemical combustion units must use Method 25A in appendix A–7 of 40 CFR part 60, as well as the methods listed in paragraphs (b)(5)(i) through (iv) of this section. The sampling time for each Method 25A run must be at least 60 minutes. The calibration gas for each Method 25A run must be propane.

(1) The emission rate from any new or existing semichemical combustion unit must be determined using Equation 11 of this section as follows:

$$ER_{SCCU} = \frac{(THC_{meas})}{BLS} \qquad \text{(Eq. 11)}$$

Where:

ER_{SCCU} = THC emission rate reported as carbon from each semichemical combustion unit, kg/Mg (lb/ton) of black liquor solids fired;

THC_{meas} = Measured THC mass emission rate reported as carbon, kg/hr (lb/hr); and

BLS = Average black liquor solids firing rate, Mg/hr (ton/hr); determined using process data measured during the performance test.

(2) If the owner or operator of the semichemical combustion unit has selected the percentage reduction standards for THC, under § 63.862(c)(2)(ii), the percentage reduction in THC emissions is computed using Equation 12 of this section as follows, provided that Ei and Eo are measured simultaneously:

$$(\%R_{THC}) = \left(\frac{E_i - E_o}{E_i}\right) \times 100 \qquad (Eq.\ 12)$$

Where:

$\%R_{THC}$ = percentage reduction of total hydrocarbons emissions achieved.

E_i = measured THC mass emission rate at the THC control device inlet, kg/hr (lb/hr).

E_o = measured THC mass emission rate at the THC control device outlet, kg/hr (lb/hr).

[66 FR 3193, Jan. 12, 2001, as amended at 66 FR 37593, July 19, 2001; 68 FR 7716, Feb. 18, 2003; 68 FR 67955, Dec. 5, 2003; 82 FR 47350, Oct. 11, 2017]

§ 63.866 Recordkeeping requirements.

(a) [Reserved]

(b) The owner or operator of an affected source or process unit must maintain records of any occurrence when corrective action is required under § 63.864(k)(1), and when a violation is noted under § 63.864(k)(2).

(c) In addition to the general records required by § 63.10(b)(2)(iii) and (vi) through (xiv), the owner or operator must maintain records of the information in paragraphs (c)(1) through (8) of this section:

(1) Records of black liquor solids firing rates in units of Mg/d or ton/d for all recovery furnaces and semichemical combustion units;

(2) Records of CaO production rates in units of Mg/d or ton/d for all lime kilns;

(3) Records of parameter monitoring data required under § 63.864, including any period when the operating parameter levels were inconsistent with the levels established during the performance test, with a brief explanation of the cause of the monitoring exceedance, the time the monitoring exceedance occurred, the time corrective action was initiated and completed, and the corrective action taken;

(4) Records and documentation of supporting calculations for compliance determinations made under § 63.865(a) through (d);

(5) Records of parameter operating limits established for each affected source or process unit;

(6) Records certifying that an NDCE recovery furnace equipped with a dry ESP system is used to comply with the gaseous organic HAP standard in § 63.862(c)(1);

(7) For the bag leak detection system on the hog fuel dryer fabric filter at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD–14), records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken; and

(8) Records demonstrating compliance with the requirement in § 63.864(e)(1) to maintain proper operation of an ESP's AVC.

(d)(1) In the event that an affected unit fails to meet an applicable standard, including any emission limit in § 63.862 or any opacity or CPMS operating limit in § 63.864, record the number of failures. For each failure record the date, start time, and duration of each failure.

(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, and the following information:

(i) For any failure to meet an emission limit in § 63.862, record an estimate of the quantity of each regulated pollutant emitted over the emission limit and a description of the method used to estimate the emissions.

(ii) For each failure to meet an operating limit in § 63.864, maintain sufficient information to estimate the quantity of each regulated pollutant emitted over the emission limit. This information must be sufficient to provide a reliable emissions estimate if requested by the Administrator.

(3) Record actions taken to minimize emissions in accordance with § 63.860(d) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[66 FR 3193, Jan. 12, 2001, as amended at 66 FR 16408, Mar. 26, 2001; 68 FR 7718, Feb. 18, 2003; 69 FR 25323, May 6, 2004; 71 FR 20458, Apr. 20, 2006; 82 FR 47351, Oct. 11, 2017]

§ 63.867 Reporting requirements.

(a) *Notifications.* (1) The owner or operator of any affected source or process unit must submit the applicable notifications from subpart A of this part, as specified in Table 1 of this subpart.

(2) [Reserved]

(3) In addition to the requirements in subpart A of this part, the owner or operator of the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington, facility (Emission Unit no. HD–14) must include analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.864(e)(12) in the Notification of Compliance Status.

(b) *Additional reporting requirements for HAP metals standards.* (1) Any owner or operator of a group of process units in a chemical recovery system at a mill complying with the PM emissions limits in § 63.862(a)(1)(ii) must submit the PM emissions limits determined in § 63.865(a) for each affected kraft or soda recovery furnace, smelt dissolving tank, and lime kiln to the Administrator for approval. The emissions limits must be submitted as part of the notification of compliance status required under subpart A of this part.

(2) Any owner or operator of a group of process units in a chemical recovery system at a mill complying with the PM emissions limits in § 63.862(a)(1)(ii) must submit the calculations and supporting documentation used in § 63.865(a)(1) and (2) to the Administrator as part of the notification of compliance status required under subpart A of this part.

(3) After the Administrator has approved the emissions limits for any process unit, the owner or operator of a process unit must notify the Administrator before any of the actions in paragraphs (b)(3)(i) through (iv) of this section are taken:

(i) The air pollution control system for any process unit is modified or replaced;

(ii) Any kraft or soda recovery furnace, smelt dissolving tank, or lime kiln in a chemical recovery system at a kraft or soda pulp mill complying with the PM emissions limits in § 63.862(a)(1)(ii) is shut down for more than 60 consecutive days;

(iii) A continuous monitoring parameter or the value or range of values of a continuous monitoring parameter for any process unit is changed; or

(iv) The black liquor solids firing rate for any kraft or soda recovery furnace during any 24-hour averaging period is increased by more than 10 percent above the level measured during the most recent performance test.

(4) An owner or operator of a group of process units in a chemical recovery system at a mill complying with the PM emissions limits in § 63.862(a)(1)(ii) and seeking to perform the actions in paragraph (b)(3)(i) or (ii) of this section must recalculate the overall PM emissions limit for the group of process units and resubmit the documentation required in paragraph (b)(2) of this section to the Administrator. All modified PM emissions limits are subject to approval by the Administrator.

(c) *Excess emissions report.* The owner or operator must submit semiannual excess emissions reports containing the information specified in paragraphs (c)(1) through (5) of this section. The owner or operator must submit semiannual excess emission reports and summary reports following the procedure specified in paragraph (d)(2) of this section as specified in § 63.10(e)(3)(v).

(1) If the total duration of excess emissions or process control system parameter exceedances for the reporting period is less than 1 percent of the total reporting period operating time, and CMS downtime is less than 5 percent of the total reporting period operating time, only the summary report is required to be submitted. This report will be titled ''Summary Report—Gaseous and Opacity Excess Emissions and Continuous Monitoring System Performance'' and must contain the information specified in paragraphs (c)(1)(i) through (x) of this section.

(i) The company name and address and name of the affected facility.

(ii) Beginning and ending dates of the reporting period.

(iii) An identification of each process unit with the corresponding air pollution control device, being included in the semiannual report, including the pollutants monitored at each process

unit, and the total operating time for each process unit.

(iv) An identification of the applicable emission limits, operating parameter limits, and averaging times.

(v) An identification of the monitoring equipment used for each process unit and the corresponding model number.

(vi) Date of the last CMS certification or audit.

(vii) An emission data summary, including the total duration of excess emissions (recorded in minutes for opacity and hours for gases), the duration of excess emissions expressed as a percent of operating time, the number of averaging periods recorded as excess emissions, and reason for the excess emissions (*e.g.*, startup/shutdown, control equipment problems, other known reasons, or other unknown reasons).

(viii) A CMS performance summary, including the total duration of CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period (*e.g.*, monitoring equipment malfunction, nonmonitoring equipment malfunction, quality assurance, quality control calibrations, other known causes, or other unknown causes).

(ix) A description of changes to CMS, processes, or controls since last reporting period.

(x) A certification by a certifying official of truth, accuracy and completeness. This will state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(2) [Reserved]

(3) If measured parameters meet any of the conditions specified in §63.864(k)(1) or (2), the owner or operator of the affected source must submit a semiannual report describing the excess emissions that occurred. If the total duration of monitoring exceedances for the reporting period is 1 percent or greater of the total reporting period operating time, or the total CMS downtime for the reporting period is 5 percent or greater of the total reporting period operating time, or any violations according to §63.864(k)(2) occurred, information from both the summary report and the excess emissions and continuous monitoring system performance report must be submitted. This report will be titled ''Excess Emissions and Continuous Monitoring System Performance Report'' and must contain the information specified in paragraphs (c)(1)(i) through (x) of this section, in addition to the information required in §63.10(c)(5) through (14), as specified in paragraphs (c)(3)(i) through (vi) of this section. Reporting monitoring exceedances does not constitute a violation of the applicable standard unless the violation criteria in §63.864(k)(2) and (3) are reached.

(i) An identification of the date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks.

(ii) An identification of the date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7).

(iii) The specific identification of each period of excess emissions and parameter monitoring exceedances as described in paragraphs (c)(3)(iii)(A) through (E) of this section.

(A) For opacity:

(*1*) The total number of 6-minute averages in the reporting period (excluding process unit downtime).

(*2*) [Reserved]

(*3*) The number of 6-minute averages in the reporting period that exceeded the relevant opacity limit.

(*4*) The percent of 6-minute averages in the reporting period that exceed the relevant opacity limit.

(*5*) An identification of each exceedance by start and end time, date, and cause of exceedance (including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(B) [Reserved]

(C) For wet scrubber operating parameters:

(*1*) The operating limits established during the performance test for scrubbing liquid flow rate and pressure drop across the scrubber (or alternatively,

fan amperage or RPM if used for smelt dissolving tank scrubbers).

(*2*) The number of 3-hour wet scrubber parameter averages below the minimum operating limit established during the performance test, if applicable.

(*3*) An identification of each exceedance by start and end time, date, and cause of exceedance (including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(D) For RTO operating temperature:

(*1*) The operating limit established during the performance test.

(*2*) The number of 1-hour and 3-hour temperature averages below the minimum operating limit established during the performance test.

(*3*) An identification of each exceedance by start and end time, date, and cause of exceedance including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(E) For alternative parameters established according to § 63.864(e)(13) or (14) subject to the requirements of § 63.864(k)(1) and (2):

(*1*) The type of operating parameters monitored for compliance.

(*2*) The operating limits established during the performance test.

(*3*) The number of 3-hour parameter averages outside of the operating limits established during the performance test.

(*4*) An identification of each exceedance by start and end time, date, and cause of exceedance including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(iv) The nature and cause of the event (if known).

(v) The corrective action taken or preventative measures adopted.

(vi) The nature of repairs and adjustments to the CMS that was inoperative or out of control.

(4) If a source fails to meet an applicable standard, including any emission limit in § 63.862 or any opacity or CPMS operating limit in § 63.864, report such events in the semiannual excess emissions report. Report the number of failures to meet an applicable standard. For each instance, report the date, time and duration of each failure. For each failure, the report must include a list of the affected sources or equipment, and for any failure to meet an emission limit under § 63.862, provide an estimate of the quantity of each regulated pollutant emitted over the emission limit, and a description of the method used to estimate the emissions.

(5) The owner or operator of an affected source or process unit subject to the requirements of this subpart and subpart S of this part may combine excess emissions and/or summary reports for the mill.

(d) *Electronic reporting.* (1) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, the owner or operator must submit the results of the performance test following the procedure specified in either paragraph (d)(1)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test, the owner or operator must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*).) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old

Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (d)(1)(i).

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13 unless the Administrator agrees to or specifies an alternative reporting method.

(2) The owner or operator must submit the notifications required in § 63.9(b) and § 63.9(h) (including any information specified in § 63.867(b)) and semiannual reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (*https://cdx.epa.gov*).) You must upload an electronic copy of each notification in CEDRI beginning with any notification specified in this paragraph that is required after October 11, 2019. The owner or operator must use the appropriate electronic report in CEDRI for this subpart listed on the CEDRI Web site (*https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri*) for semiannual reports. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at all the appropriate addresses listed in § 63.13. Once the form has been available in CEDRI for 1 year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

(3) If you are required to electronically submit a report through CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(4) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.,* hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.,* large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the

event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

[66 FR 3193, Jan. 12, 2001, as amended at 66 FR 16408, Mar. 26, 2001; 68 FR 7718, Feb. 18, 2003; 68 FR 42605, July 18, 2003; 68 FR 46108, Aug. 5, 2003; 69 FR 25323, May 6, 2004; 82 FR 47351, Oct. 11, 2017; 85 FR 70494, Nov. 5, 2020]

§ 63.868 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Clean Air Act, the authorities contained in paragraph (b) of this section must be retained by the Administrator and not transferred to a State.

(b) The authorities which will not be delegated to States are listed in paragraphs (b)(1) through (4) of this section:

(1) Approval of alternatives to standards in § 63.862 under § 63.6(g).

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

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

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

[66 FR 3193, Jan. 12, 2001, as amended at 82 FR 47353, Oct. 11, 2017]

TABLE 1 TO SUBPART MM OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART MM

General provisions reference	Summary of requirements	Applies to subpart MM	Explanation
63.1(a)(1)	General applicability of the General Provisions.	Yes	Additional terms defined in § 63.861; when overlap between subparts A and MM of this part, subpart MM takes precedence.
63.1(a)(2)–(14)	General applicability of the General Provisions.	Yes.	
63.1(b)(1)	Initial applicability determination.	No	Subpart MM specifies the applicability in § 63.860.
63.1(b)(2)	Title V operating permit—see 40 CFR part 70.	Yes	All major affected sources are required to obtain a title V permit.
63.1(b)(3)	Record of the applicability determination.	No	All affected sources are subject to subpart MM according to the applicability definition of subpart MM.
63.1(c)(1)	Applicability of subpart A of this part after a relevant standard has been set.	Yes	Subpart MM clarifies the applicability of each paragraph of subpart A of this part to sources subject to subpart MM.
63.1(c)(2)	Title V permit requirement	Yes	All major affected sources are required to obtain a title V permit. There are no area sources in the pulp and paper mill source category.
63.1(c)(3)	[Reserved]	No.	
63.1(c)(4)	Requirements for existing source that obtains an extension of compliance.	Yes.	
63.1(c)(5)	Notification requirements for an area source that increases HAP emissions to major source levels.	Yes.	
63.1(c)(6)	Reclassification	Yes.	

General provisions reference	Summary of requirements	Applies to subpart MM	Explanation
63.1(d)	[Reserved]	No.	
63.1(e)	Applicability of permit program before a relevant standard has been set.	Yes.	
63.2	Definitions	Yes	Additional terms defined in §63.861; when overlap between subparts A and MM of this part occurs, subpart MM takes precedence.
63.3	Units and abbreviations	Yes.	
63.4	Prohibited activities and circumvention.	Yes.	
63.5(a)	Construction and reconstruction—applicability.	Yes.	
63.5(b)(1)	Upon construction, relevant standards for new sources.	Yes.	
63.5(b)(2)	[Reserved]	No.	
63.5(b)(3)	New construction/reconstruction.	Yes.	
63.5(b)(4)	Construction/reconstruction notification.	Yes.	
63.5(b)(5)	Construction/reconstruction compliance.	Yes.	
63.5(b)(6)	Equipment addition or process change.	Yes.	
63.5(c)	[Reserved]	No.	
63.5(d)	Application for approval of construction/reconstruction.	Yes.	
63.5(e)	Construction/reconstruction approval.	Yes.	
63.5(f)	Construction/reconstruction approval based on prior State preconstruction review.	Yes.	
63.6(a)(1)	Compliance with standards and maintenance requirements—applicability.	Yes.	
63.6(a)(2)	Requirements for area source that increases emissions to become major.	Yes.	
63.6(b)	Compliance dates for new and reconstructed sources.	Yes.	
63.6(c)	Compliance dates for existing sources.	Yes, except for sources granted extensions under 63.863(c).	Subpart MM specifically stipulates the compliance schedule for existing sources.
63.6(d)	[Reserved]	No.	
63.6(e)(1)(i)	General duty to minimize emissions.	No	See §63.860(d) for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP.	No.	
63.6(e)(1)(iii)	Operation and maintenance requirements enforceable independent of emissions limitations.	Yes.	
63.6(e)(2)	[Reserved]	No.	
63.6(e)(3)	Startup, shutdown, and malfunction plan (SSMP).	No.	
63.6(f)(1)	Compliance with nonopacity emissions standards except during SSM.	No.	
63.6(f)(2)–(3)	Methods for determining compliance with nonopacity emissions standards.	Yes.	
63.6(g)	Compliance with alternative nonopacity emissions standards.	Yes.	
63.6(h)(1)	Compliance with opacity and visible emissions (VE) standards except during SSM.	No.	

General provisions reference	Summary of requirements	Applies to subpart MM	Explanation
63.6(h)(2)–(9)	Compliance with opacity and VE standards.	Yes	Subpart MM does not contain any opacity or VE standards; however, §63.864 specifies opacity monitoring requirements.
63.6(i)	Extension of compliance with emissions standards.	Yes.	
63.6(j)	Exemption from compliance with emissions standards.	Yes.	
63.7(a)(1)	Performance testing requirements—applicability.	Yes.	
63.7(a)(2)	Performance test dates	Yes.	
63.7(a)(3)	Performance test requests by Administrator under CAA section 114.	Yes.	
63.7(a)(4)	Notification of delay in performance testing due to force majeure.	Yes.	
63.7(b)(1)	Notification of performance test.	Yes.	
63.7(b)(2)	Notification of delay in conducting a scheduled performance test.	Yes.	
63.7(c)	Quality assurance program	Yes.	
63.7(d)	Performance testing facilities	Yes.	
63.7(e)(1)	Conduct of performance tests	No	See §63.865.
63.7(e)(2)–(3)	Conduct of performance tests	Yes.	
63.7(e)(4)	Testing under section 114	Yes.	
63.7(f)	Use of an alternative test method.	Yes.	
63.7(g)	Data analysis, recordkeeping, and reporting.	Yes.	
63.7(h)	Waiver of performance tests	Yes	§63.865(c)(1) specifies the only exemption from performance testing allowed under subpart MM.
63.8(a)(1)	Monitoring requirements—applicability.	Yes	See §63.864.
63.8(a)(2)	Performance Specifications	Yes.	
63.8(a)(3)	[Reserved]	No.	
63.8(a)(4)	Monitoring with flares	No	The use of flares to meet the standards in subpart MM is not anticipated.
63.8(b)(1)	Conduct of monitoring	Yes	See §63.864.
63.8(b)(2)–(3)	Specific requirements for installing and reporting on monitoring systems.	Yes.	
63.8(c)(1)	Operation and maintenance of CMS.	Yes	See §63.864.
63.8(c)(1)(i)	General duty to minimize emissions and CMS operation.	No.	
63.8(c)(1)(ii)	Reporting requirements for SSM when action not described in SSMP.	Yes.	
63.8(c)(1)(iii)	Requirement to develop SSM plan for CMS.	No.	
63.8(c)(2)–(3)	Monitoring system installation	Yes.	
63.8(c)(4)	CMS requirements	Yes.	
63.8(c)(5)	Continuous opacity monitoring system (COMS) minimum procedures.	Yes.	
63.8(c)(6)	Zero and high level calibration check requirements.	Yes.	
63.8(c)(7)–(8)	Out-of-control periods	Yes.	
63.8(d)(1)–(2)	CMS quality control program	Yes	See §63.864.
63.8(d)(3)	Written procedures for CMS	No	See §63.864(f).
63.8(e)(1)	Performance evaluation of CMS.	Yes.	
63.8(e)(2)	Notification of performance evaluation.	Yes.	

General provisions reference	Summary of requirements	Applies to subpart MM	Explanation
63.8(e)(3)	Submission of site-specific performance evaluation test plan.	Yes.	
63.8(e)(4)	Conduct of performance evaluation and performance evaluation dates.	Yes.	
63.8(e)(5)	Reporting performance evaluation results.	Yes.	
63.8(f)	Use of an alternative monitoring method.	Yes.	
63.8(g)	Reduction of monitoring data ..	Yes.	
63.9(a)	Notification requirements—applicability and general information.	Yes.	
63.9(b)	Initial notifications	Yes.	
63.9(c)	Request for extension of compliance.	Yes.	
63.9(d)	Notification that source subject to special compliance requirements.	Yes.	
63.9(e)	Notification of performance test.	Yes.	
63.9(f)	Notification of opacity and VE observations.	Yes	Subpart MM does not contain any opacity or VE standards; however, §63.864 specifies opacity monitoring requirements.
63.9(g)(1)	Additional notification requirements for sources with CMS.	Yes.	
63.9(g)(2)	Notification of compliance with opacity emissions standard.	Yes	Subpart MM does not contain any opacity or VE emissions standards; however, §63.864 specifies opacity monitoring requirements.
63.9(g)(3)	Notification that criterion to continue use of alternative to relative accuracy testing has been exceeded.	Yes.	
63.9(h)	Notification of compliance status.	Yes.	
63.9(i)	Adjustment to time periods or postmark deadlines for submittal and review of required communications.	Yes.	
63.9(j)	Change in information already provided.	Yes.	
63.9(k)	Electronic reporting procedures.	Yes	Only as specified in §63.9(j).
63.10(a)	Recordkeeping requirements—applicability and general information.	Yes	See §63.866.
63.10(b)(1)	Records retention	Yes.	
63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups and shutdowns.	No.	
63.10(b)(2)(ii)	Recordkeeping of failures to meet a standard.	No	See §63.866(d) for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
63.10(b)(2)(iii)	Maintenance records	Yes.	
63.10(b)(2)(iv)–(v)	Actions taken to minimize emissions during SSM.	No.	
63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions.	Yes.	
63.10(b)(2)(vii)–(xiv)	Other CMS requirements	Yes.	

General provisions reference	Summary of requirements	Applies to subpart MM	Explanation
63.10(b)(3)	Records retention for sources not subject to relevant standard.	Yes	Applicability requirements are given in § 63.860.
63.10(c)(1)–(14)	Additional recordkeeping requirements for sources with CMS.	Yes.	
63.10(c)(15)	Use of SSM plan	No.	
63.10(d)(1)	General reporting requirements.	Yes.	
63.10(d)(2)	Reporting results of performance tests.	Yes.	
63.10(d)(3)	Reporting results of opacity or VE observations.	Yes	Subpart MM does not include any opacity or VE standards; however, § 63.864 specifies opacity monitoring requirements.
63.10(d)(4)	Progress reports	Yes.	
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports.	No	See § 63.867(c)(3) for malfunction reporting requirements.
63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports.	No	See § 63.867(c)(3) for malfunction reporting requirements.
63.10(e)(1)	Additional reporting requirements for sources with CMS—General.	Yes.	
63.10(e)(2)	Reporting results of CMS performance evaluations.	Yes.	
63.10(e)(3)(i)–(iv)	Requirement to submit excess emissions and CMS performance report and/or summary report and frequency of reporting.	No	§ 63.867(c)(1) and (3) require submittal of the excess emissions and CMS performance report and/or summary report on a semi-annual basis.
63.10(e)(3)(v)	General content and submittal dates for excess emissions and monitoring system performance reports.	Yes.	
63.10(e)(3)(vi)	Specific summary report content.	No	§ 63.867(c)(1) specifies the summary report content.
63.10(e)(3)(vii)–(viii)	Conditions for submitting summary report versus detailed excess emission report.	No	§ 63.867(c)(1) and (3) specify the conditions for submitting the summary report or detailed excess emissions and CMS performance report.
63.10(e)(4)	Reporting continuous opacity monitoring system data produced during a performance test.	Yes.	
63.10(f)	Waiver of recordkeeping and reporting requirements.	Yes.	
63.11	Control device requirements for flares.	No	The use of flares to meet the standards in subpart MM is not anticipated.
63.12	State authority and delegations.	Yes.	
63.13	Addresses of State air pollution control agencies and EPA Regional Offices.	Yes.	
63.14	Incorporations by reference	Yes.	
63.15	Availability of information and confidentiality.	Yes.	
63.16	Requirements for Performance Track member facilities.	Yes.	

[66 FR 3193, Jan. 12, 2001, as amended at 66 FR 16408, Mar. 26, 2001; 82 FR 47353, Oct. 11, 2017; 85 FR 73896, Nov. 19, 2020]

Subpart NN—National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing at Area Sources

SOURCE: 80 FR 45325, July 29, 2015, unless otherwise noted.

§ 63.880 Applicability.

(a) The requirements of this subpart apply to the owner or operator of each wool fiberglass manufacturing facility that is an area source or is located at a facility that is an area source.

(b) The requirements of this subpart apply to emissions of chromium compounds, as measured according to the methods and procedures in this subpart, emitted from each new and existing gas-fired glass-melting furnace located at a wool fiberglass manufacturing facility that is an area source.

(c) The provisions of subpart A of this part that apply and those that do not apply to this subpart are specified in Table 1 to this subpart.

(d) Gas-fired glass-melting furnaces that are not subject to subpart NNN of this part are subject to this subpart.

(e) Gas-fired glass-melting furnaces using electricity as a supplemental energy source are subject to this subpart.

§ 63.881 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, or in this section as follows:

Bag leak detection system means systems that include, but are not limited to, devices using triboelectric, light scattering, and other effects to monitor relative or absolute particulate matter emissions.

Gas-fired glass-melting furnace means a unit comprising a refractory vessel in which raw materials are charged, melted at high temperature using natural gas and other fuels, refined, and conditioned to produce molten glass. The unit includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation, and appendages for conditioning and distributing molten glass to forming processes. The forming apparatus, including flow channels, is not considered part of the gas-fired glass-melting furnace. Cold-top electric glass-melting furnaces as defined in subpart NNN of this part are not gas-fired glass-melting furnaces.

Glass pull rate means the mass of molten glass that is produced by a single glass-melting furnace or that is used in the manufacture of wool fiberglass at a single manufacturing line in a specified time period.

Incinerator means an enclosed air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases. For the purposes of this subpart, the term ''incinerator'' means ''regenerative thermal oxidizer''.

Manufacturing line means the manufacturing equipment for the production of wool fiberglass that consists of a forming section where molten glass is fiberized and a fiberglass mat is formed and which may include a curing section where binder resin in the mat is thermally set and a cooling section where the mat is cooled.

New source means any affected source the construction or reconstruction of which is commenced after April 15, 2013.

Wool fiberglass means insulation materials composed of glass fibers made from glass produced or melted at the same facility where the manufacturing line is located.

Wool fiberglass manufacturing facility means any facility manufacturing wool fiberglass.

§ 63.882 Emission standards.

(a) *Emission limits for gas-fired glass-melting furnaces.* For each existing, new, or reconstructed gas-fired glass-melting furnace, on and after the compliance date specified in § 63.887 whichever date is earlier, you must not discharge or cause to be discharged into the atmosphere emissions in excess of 0.00025 lb of chromium compounds per ton of glass pulled (0.25 lb per thousand tons glass pulled).

(b) *Operating limits.* On and after the date on which the performance test required by §§ 63.7 and 63.1384 is completed, you must operate all affected

control equipment and processes according to the following requirements.

(1)(i) You must initiate corrective action within one hour of an alarm from a bag leak detection system and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) You must implement a Quality Improvement Plan consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the bag leak detection system alarm is sounded for more than 5 percent of the total operating time in a 6-month block reporting period.

(2)(i) You must initiate corrective action within one hour when any 3-hour block average of the monitored electrostatic precipitator (ESP) parameter is outside the limit(s) established during the performance test as specified in § 63.884 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) You must implement a Quality Improvement Plan consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the monitored ESP parameter is outside the limit(s) established during the performance test as specified in § 63.884 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) You must operate the ESP such that the monitored ESP parameter is not outside the limit(s) established during the performance test as specified in § 63.884 for more than 10 percent of the total operating time in a 6-month block reporting period.

(3)(i) You must initiate corrective action within one hour when any 3-hour block average value for the monitored parameter(s) for a gas-fired glass-melting furnace, which uses no add-on controls, is outside the limit(s) established during the performance test as specified in § 63.884 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) You must implement a Quality Improvement Plan consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the monitored parameter(s) is outside the limit(s) established during the performance test as specified in § 63.884 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) You must operate a gas-fired glass-melting furnace, which uses no add-on technology, such that the monitored parameter(s) is not outside the limit(s) established during the performance test as specified in § 63.884 for more than 10 percent of the total operating time in a 6-month block reporting period.

(4)(i) You must initiate corrective action within one hour when the average glass pull rate of any 4-hour block period for gas-fired glass-melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass-melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in § 63.884, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) You must implement a Quality Improvement Plan consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in § 63.884 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) You must operate each gas-fired glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the most recent successful performance test as specified in § 63.884 for more than 10 percent of the total operating time in a 6-month block reporting period.

(5)(i) You must initiate corrective action within one hour when the average pH (for a caustic scrubber) or pressure drop (for a venturi scrubber) for any 3-hour block period is outside the limits established during the performance tests as specified in § 63.884 for each wet scrubbing control device and complete corrective actions in a timely manner

according to the procedures in the operations, maintenance, and monitoring plan.

(ii) You must implement a Quality Improvement Plan consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in § 63.884 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) You must operate each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specified in § 63.884 for more than 10 percent of the total operating time in a 6-month block reporting period.

§ 63.883 Monitoring requirements.

You must meet all applicable monitoring requirements contained in subpart NNN of this part.

§ 63.884 Performance test requirements.

(a) If you are subject to the provisions of this subpart you must conduct a performance test to demonstrate compliance with the applicable emission limits in § 63.882. For existing sources, compliance is demonstrated when the emission rate of the pollutant is equal to or less than each of the applicable emission limits in § 63.882 by July 31, 2017. For new sources compliance is demonstrated when the emission rate of the pollutant is equal to or less than each of the applicable emission limits in § 63.882 by January 25, 2016 or 180 days after initial startup, whichever is later. You must conduct the performance test according to the procedures in subpart A of this part and in this section.

(b) You must meet all applicable performance test requirements contained in subpart NNN of this part.

§ 63.885 Test methods and procedures.

(a) You must use the following methods to determine compliance with the applicable emission limits:

(1) Method 1 at 40 CFR part 60, appendix A–1 for the selection of the sampling port location and number of sampling ports;

(2) Method 2 at 40 CFR part 60, appendix A–1 for volumetric flow rate;

(3) Method 3 or 3A (40 CFR part 60, appendix A–2) for oxygen and carbon dioxide for diluent measurements needed to correct the concentration measurements to a standard basis;

(4) Method 4 at 40 CFR part 60, appendix A–4 for moisture content of the stack gas;

(5) Method 29 (40 CFR part 60, appendix A–8) for the concentration of chromium compounds. Each run must consist of a minimum sample volume of two dry standard cubic meters.

(6) An alternative method, subject to approval by the Administrator.

(b) Each performance test must consist of three runs. You must use the average of the three runs in the applicable equation for determining compliance.

§ 63.886 Notification, recordkeeping, and reporting requirements.

You must meet all applicable notification, recordkeeping and reporting requirements contained in subpart NNN of this part.

§ 63.887 Compliance dates.

(a) *Compliance dates.* The owner or operator subject to the provisions of this subpart must be in compliance with the requirements of this subpart by no later than:

(1) Except as noted in paragraph (a)(3) of this section, the compliance date for an owner or operator of an existing source subject to the provisions in this subpart would be July 31, 2017.

(2) Except as noted in paragraph (a)(3) of this section, the compliance date for new and reconstructed sources is upon initial startup of a new gas-fired glass-melting furnace or on July 29, 2015, whichever is later.

(3) The compliance date for the provisions related to the electronic reporting provisions of § 63.886 is on July 29, 2015.

(b) *Compliance extension.* The owner or operator of an existing source subject to this subpart may request from the Administrator an extension of the compliance date for the emission standards for one additional year if such additional period is necessary for the installation of controls. You must

submit a request for an extension according to the procedures in § 63.6(i)(3).

§ 63.888 Startups and shutdowns.

You must meet all applicable startup and shutdown provisions contained in subpart NNN of this part.

§§ 63.889–63.899 [Reserved]

TABLE 1 TO SUBPART NN OF PART 63—APPLICABILITY OF GENERAL PROVISIONS (40 CFR PART 63, SUBPART A) TO SUBPART NN

General provisions citation	Requirement	Applies to subpart NN	Explanation
§ 63.1(a)(1)–(5)	Applicability	Yes	
§ 63.1(a)(6)		Yes	
§ 63.1(a)(7)–(9)		No	[Reserved].
§ 63.1(a)(10)–(12)		Yes	
§ 63.1(b)(1)	Initial Applicability Determination	Yes	
§ 63.1(b)(2)		No	[Reserved].
§ 63.1(b)(3)		Yes	
§ 63.1(c)(1)–(2)		Yes	
§ 63.1(c)(3)–(4)		No	[Reserved].
§ 63.1(c)(5)–(e)		Yes	
§ 63.2	Definitions	Yes	Additional definitions in § 63.881.
§ 63.3	Units and Abbreviations	Yes	
§ 63.4(a)(1)–(2)	Prohibited Activities	Yes	
§ 63.4(a)(3)–(5)		No	[Reserved].
§ 63.4(b)–(c)		Yes	
§ 63.5(a)–(b)(2)	Construction/Reconstruction Applicability.	Yes	
§ 63.5(b)(3)–(4)		Yes	
§ 63.5(b)(5)		No	[Reserved].
§ 63.5(b)(6)		Yes	
§ 63.5(c)		No	[Reserved].
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes	
§ 63.5(f)	Approval of Construction/Reconstruction Based on State Review.	Yes	
§ 63.6(a)–(d)	Compliance with Standards and Maintenance Requirements.	Yes	
§ 63.6(e)(1)(i)	General Duty to Minimize Emissions	No	See § 63.882 for general duty requirements.
§ 63.6(e)(1)(ii)	Requirement to Correct Malfunctions As Soon As Possible.	No	
§ 63.6(e)(1)(iii)		Yes	
§ 63.6(e)(2)		No	[Reserved].
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan.	No	Startups and shutdowns addressed in § 63.888.
§ 63.6(f)(1)	SSM Exemption	No	
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes	
§ 63.6(g)	Use of an Alternative Nonopacity Emission.	Yes	
§ 63.6(h)(1)	SSM Exemption	No	
§ 63.6(h)(2)–(j)		Yes	
§ 63.7(a)–(d)		Yes	§ 63.884 has specific requirements.
§ 63.7(e)(1)	Performance Testing	No	See § 63.882.
§ 63.7(e)(2)–(4)		Yes	
§ 63.7(f)	Alternative Test Method	Yes	
§ 63.7(g)(1)	Data Analysis	Yes	
§ 63.7(g)(2)		No	[Reserved].
§ 63.7(g)(3)		Yes	
§ 63.7(h)	Waiver of Performance Test	Yes	
§ 63.8(a)–(b)	Monitoring Requirements	Yes	
§ 63.8(c)(1)(i)	General Duty to Minimize Emissions and CMS Operation.	No	See § 63.882(b) for general duty requirement.
§ 63.8(c)(1)(ii)		Yes	
§ 63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS.	No	
§ 63.8(c)(2)–(d)(2)		Yes	

General provisions citation	Requirement	Applies to subpart NN	Explanation
§ 63.8(d)(3)	Written Procedures for CMS	Yes, except for last sentence, which refers to SSM plan. SSM plans are not required	
§ 63.8(e)–(g)		Yes	
§ 63.9(a)	Notification Requirements	Yes	
§ 63.9(b)(1)–(2)	Initial Notifications	Yes	
§ 63.9(b)(3)		No	[Reserved].
§ 63.9(b)(4)–(5)		Yes	
§ 63.9(c)–(j)		Yes	
§ 63.10(a)	Recordkeeping and Reporting-Requirements.	Yes	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	
§ 63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns.	No	
§ 63.10(b)(2)(ii)	Recordkeeping of Malfunctions	No	See § 63.886 for recordkeeping of occurrence and duration of malfunctions and recordkeeping of actions taken during malfunction.
§ 63.10(b)(2)(iii)	Maintenance Records	Yes	
§ 63.10(b)(2)(iv)–(v)	Actions Taken to Minimize Emissions During SSM.	No	
§ 63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions	Yes	
§ 63.10(b)(2)(vii)–(xiv).	Other CMS Requirements	Yes	
§ 63.10(b)(3)	Recordkeeping Requirement for Applicability Determinations.	Yes	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes	
§ 63.10(c)(7)–(8)	Additional Recordkeeping Requirements for CMS—Identifying Exceedances and Excess Emissions.	Yes	
§ 63.10(c)(9)		No	[Reserved].
§ 63.10(c)(10)–(11)		No	See § 63.886 for recordkeeping of malfunctions.
§ 63.10(c)(12)–(14)		Yes	
§ 63.10(c)(15)	Use of SSM Plan	No	
§ 63.10(d)(1)–(4)	General Reporting Requirements	Yes	
§ 63.10(d)(5)	SSM Reports	No	See § 63.886(c)(2) for reporting of malfunctions.
§ 63.10(e)–(f)	Additional CMS Reports Excess Emission/CMS Performance Reports COMS Data Reports Recordkeeping/Reporting Waiver.	Yes	
§ 63.11(a)–(b)	Control Device Requirements Applicability Flares.	No	Flares will not be used to comply with the emissions limits.
§ 63.11(c)	Alternative Work Practice for Monitoring Equipment for Leaks.	Yes	
§ 63.11(d)	Alternative Work Practice Standard	Yes	
§ 63.11(e)	Alternative Work Practice Requirements	Yes	
§ 63.12	State Authority and Delegations	Yes	
§ 63.13	Addresses	Yes	
§ 63.14	Incorporation by Reference	Yes	
§ 63.15	Information Availability/Confidentiality	Yes	
§ 63.16	Performance Track Provisions	Yes	

Subpart OO—National Emission Standards for Tanks—Level 1

SOURCE: 61 FR 34184, July 1, 1996, unless otherwise noted.

§ 63.900 Applicability.

The provisions of this subpart apply to the control of air emissions from tanks for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for tanks are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart A—General Provisions do not apply to this

subpart except as noted in the subpart that references this subpart.

§ 63.901 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that, when the device is secured in the closed position, prevents or reduces air emissions to the atmosphere by blocking an opening in a fixed roof. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Fixed roof means a cover that is mounted on a tank in a stationary position and does not move with fluctuations in the level of the liquid managed in the tank.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.905(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in tanks using air emission controls in accordance with the standards specified in this subpart.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

[61 FR 34184, July 1, 1996, as amended at 64 FR 38985, July 20, 1999]

§ 63.902 Standards—Tank fixed roof.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from a tank using a fixed roof. This section does not apply to a fixed-roof tank that is also equipped with an internal floating roof.

(b) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

(2) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(3) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(i) equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the

closure device or between the perimeter of the opening and the closure device; or

(ii) connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever regulated material is managed in the tank.

(4) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(c) Whenever a regulated-material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(1) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(ii) To remove accumulated sludge or other residues from the bottom of tank.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(3) Opening of a safety device, as defined in § 63.901 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the air emission control equipment in accordance with the requirements specified in § 63.906(a) of this subpart.

[61 FR 34184, July 1, 1996, as amended at 64 FR 38986, July 20, 1999]

§§ 63.903–63.904 [Reserved]

§ 63.905 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (a)(8)(i) or (a)(8)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (a)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (a)(9)(i) and (a)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 10,000 ppmv.

(b) [Reserved]

[64 FR 38986, July 20, 1999]

§ 63.906 Inspection and monitoring requirements.

(a) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of § 63.902 of this subpart shall meet the following requirements:

(1) The fixed roof and its closure devices shall be visually inspected by the

owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (d) of this section.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.907 (a) of this subpart.

(b) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (b)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the regulated material normally managed in the tank. In this case, the owner or operator shall repair the defect the next time alternative tank capacity becomes available and the tank can be emptied or temporarily removed from service, as necessary to complete the repair.

(c) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.907(b) of this subpart.

(d) *Alternative inspection and monitoring interval.* Following the initial inspection and monitoring of a fixed roof in accordance with this section, subsequent inspection and monitoring of the equipment may be performed at intervals longer than 1 year when an owner or operator determines that performing the required inspection or monitoring procedures would expose a worker to dangerous, hazardous, or otherwise unsafe conditions and the owner or operator complies with the requirements specified in paragraphs (d)(1) and (d)(2) of this section.

(1) The owner or operator must prepare and maintain at the plant site written documentation identifying the specific air pollution control equipment designated as ''unsafe to inspect and monitor.'' The documentation must include for each piece of air pollution control equipment designated as such a written explanation of the reasons why the equipment is unsafe to inspect or monitor using the applicable procedures under this section.

(2) The owner or operator must develop and implement a written plan and schedule to inspect and monitor the air pollution control equipment using the applicable procedures specified in this section during times when a worker can safely access the air pollution control equipment. The required inspections and monitoring must be performed as frequently as practicable but do not need to be performed more frequently than the periodic schedule that would be otherwise applicable to the air pollution control equipment under the provisions of this section. A copy of the written plan and schedule must be maintained at the plant site.

[61 FR 34184, July 1, 1996, as amended at 64 FR 38986, July 20, 1999]

§ 63.907 Recordkeeping requirements.

(a) Each owner or operator shall prepare and maintain a record for each tank that includes the following information:

(1) A tank identification number (or other unique identification description as selected by the owner or operator).

(2) A description of the tank dimensions and the tank design capacity.

(3) The date that each inspection required by § 63.906 of this subpart is performed.

(b) The owner or operator shall record the following information for each defect detected during inspections

required by § 63.906 of this subpart: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.907(b)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

§ 63.908 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.900 and 63.902.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

Subpart PP—National Emission Standards for Containers

SOURCE: 61 FR 34186, July 1, 1996, unless otherwise noted.

§ 63.920 Applicability.

The provisions of this subpart apply to the control of air emissions from containers for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for containers are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.921 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Container means a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as ''portable tanks'' or ''totes,'' cargo tank trucks, and tank railcars.

Closure device means a cover, cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air emissions to the atmosphere by blocking an opening in a container or its cover when the device is secured in the closed position. Closure devices include devices that are detachable from the container (e.g., a drum head, a threaded plug), manually operated (e.g., a hinged dumpster lid, a truck tank hatch), or automatically operated (e.g., a spring loaded pressure relief valve).

Empty container means a container for which either of the following conditions exists: the container meets the

conditions for an empty container specified in 40 CFR 261.7(b); or all regulated-material has been removed from the container except for any regulated-material that remains on the interior surfaces of the container as clingage or in pools on the container bottom due to irregularities in the container.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.925(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in containers using air emission controls in accordance with the standards specified in this subpart.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

[61 FR 34186, July 1, 1996, as amended at 64 FR 38987, July 20, 1999]

§ 63.922 Standards—Container Level 1 controls.

(a) This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 1 controls.

(b) A container using Container Level 1 controls is one of the following:

(1) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section.

(2) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum, a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a bulk cargo container equipped with a screw-type cap).

(3) An open-top container in which an organic vapor-suppressing barrier is placed on or over the regulated-material in the container such that no regulated-material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(c) A container used to meet the requirements of either paragraph (b)(2) or (b)(3) of this section shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the regulated-material to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability, the effects of contact with the material or its vapor managed in the container; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for container on which the cover is installed.

(d) Whenever a regulated-material is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices

for the container, and secure and maintain each closure device in the closed position except as follows:

(1) Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows:

(i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaves the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(2) Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows:

(i) For the purpose of meeting the requirements of this section, an empty container as defined in §63.921 of this subpart may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container).

(ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in §63.921 of this subpart, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes, or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(3) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(4) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(5) Opening of a safety device, as defined in §63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(e) The owner or operator shall inspect containers using Container Level

1 controls in accordance with the procedures specified in § 63.926(a) of this subpart.

(f) For the purpose of compliance with paragraph (b)(1) of this section, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packagings or 49 CFR part 179—Specifications for Tank Cars.

(2) Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107 subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packaging; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with this subpart, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in paragraph (f)(4) of this section.

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with this subpart, an owner or operator may comply with the exceptions for those packagings specified in 49 CFR 173.12(b).

§ 63.923 Standards—Container Level 2 controls.

(a) This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 2 controls.

(b) A container using Container Level 2 controls is one of the following:

(1) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section.

(2) A container that has been demonstrated to operate with no detectable organic emissions as defined in § 63.921 of this subpart.

(3) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 in appendix A of 40 CFR part 60 in accordance with the procedure specified in § 63.925(b) of this subpart.

(c) Transfer of regulated-material in to or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the regulated-material to the atmosphere, to the extent practical, considering the physical properties of the regulated-material and good engineering and safety practices for handling flammable, ignitable, explosive, or other hazardous materials. Examples of container loading procedures that meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the regulated-material is filled, with subsequent purging of the transfer line before removing it from the container opening.

(d) Whenever a regulated-material is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(1) Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows:

(i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled

to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaves the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(2) Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows:

(i) For the purpose of meeting the requirements of this section, an empty container as defined in §63.921 of this subpart may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container).

(ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in §63.921 of this subpart, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(3) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(4) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(5) Opening of a safety device, as defined in §63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(e) The owner or operator shall inspect containers using Container Level 2 controls in accordance with the procedures specified in §63.926(a) of this subpart.

(f) For the purpose of compliance with paragraph (b)(1) of this section, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packagings or 49 CFR part 179—Specifications for Tank Cars.

(2) Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107 subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training

Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packaging; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with this subpart, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in paragraph (f)(4) of this section.

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with this subpart, an owner or operator may comply with the exceptions for those packagings specified in 49 CFR 173.12(b).

§ 63.924 Standards—Container Level 3 controls.

(a) This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 3 controls.

(b) A container using Container Level 3 controls is one of the following:

(1) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of paragraphs (c)(2) of this section.

(2) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (c)(1) and (c)(2) of this section.

(c) The owner or operator shall meet the following requirements as applicable to the type of air emission control equipment selected by the owner or operator:

(1) The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' initially when the enclosure is first installed and, thereafter, annually.

(2) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693.

(d) Safety devices, as defined in § 63.921 of this subpart, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with this section.

[61 FR 34184, July 1, 1996, as amended at 66 FR 1267, Jan. 8, 2001]

§ 63.925 Test methods and procedures.

(a) Procedures for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in

Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (a)(8)(i) or (a)(8)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (a)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (a)(9)(i) and (a)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 10,000 ppmv.

(b) Procedure for determining a container to be vapor-tight for the purpose of complying with this subpart.

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A of this chapter.

(2) A pressure measurement device shall be used that has a precision of ±2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

[61 FR 34186, July 1, 1996, as amended at 64 FR 38987, July 20, 1999]

§ 63.926 Inspection and monitoring requirements.

(a) Owners and operators of containers using either Container Level 1 or Container Level 2 controls in accordance with the provisions of § 63.922 and § 63.923 of this subpart, respectively, shall inspect the container and its cover and closure devices as follows:

(1) In the case when a regulated-material already is in the container at the time the owner or operator first accepts possession of the container at the facility site and the container is not emptied (i.e., does not meet the conditions for an empty container as defined in § 63.921 of this subpart) within 24 hours after the container has been accepted at the facility site, the container and its cover and closure devices shall be visually inspected by the owner or operator to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. This inspection of the container must be conducted on or before the date that the container is accepted at the facility (i.e., the date that the container becomes subject to the standards under this subpart). For the purpose of this requirement, the date of acceptance is the date of signature of the facility owner or operator on the manifest or shipping papers accompanying the container. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (a)(3) of this section.

(2) In the case when a container filled or partially filled with regulated-material remains unopened at the facility site for a period of 1 year or more, the container and its cover and closure devices shall be visually inspected by the owner or operator initially and thereafter, at least once every calendar year, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (a)(3) of this section.

(3) When a defect is detected for the container, cover, or closure devices, the owner or operator must either empty the regulated-material from the defective container in accordance with paragraph (a)(3)(i) of this section or repair the defective container in accordance with paragraph (a)(3)(ii) of this section.

(i) If the owner or operator elects to empty the regulated-material from the defective container, the owner or operator must remove the regulated-material from the defective container to meet the conditions for an empty container (as defined in § 63.921 of this subpart) and transfer the removed regulated-material to either a container that meets the applicable standards under this subpart or to a tank, process, or treatment unit that meets the applicable standards under the subpart referencing this subpart. Transfer of the regulated-material must be completed no later than 5 calendar days after detection of the defect. The emptied defective container must be either repaired, destroyed, or used for purposes other than management of regulated-material.

(ii) If the owner or operator elects not to empty the regulated-material from the defective container, the owner or operator must repair the defective container. First efforts at repair of the defect must be made no later than 24 hours after detection and repair must be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the regulated-material must be emptied from the container and the container must not be used to manage regulated-material until the defect is repaired.

(b) Owners and operators using Container Level 3 controls in accordance with the provisions of § 63.924 of this subpart shall inspect and monitor the closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

[61 FR 34186, July 1, 1996, as amended at 64 FR 38988, July 20, 1999]

§ 63.927 Recordkeeping requirements.

(a) Owners and operators that use Container Level 3 controls in accordance with the provisions of § 63.924 of this subpart shall prepare and maintain the following records:

(1) Records for the most recent set of calculations and measurements performed by the owner or operator to

verify that the enclosure meets the criteria of a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of §63.693 in 40 CFR part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(b) [Reserved]

§63.928 Reporting requirements.

(a) For owners and operators that use Container Level 3 controls in accordance with the provisions of §63.924 of this subpart, the owner or operator shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of §63.693 in 40 CFR part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(b) [Reserved]

§63.929 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§63.920 and 63.922 through 63.924. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37355, June 23, 2003]

Subpart QQ—National Emission Standards for Surface Impoundments

SOURCE: 61 FR 34190, July 1, 1996, unless otherwise noted.

§63.940 Applicability.

The provisions of this subpart apply to the control of air emissions from surface impoundments for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for surface impoundments are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart AA—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§63.941 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air emissions to the atmosphere by blocking an

opening in a surface impoundment cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring loaded pressure relief valve).

Cover means a device or system that provides a continuous barrier over the material managed in a surface impoundment to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings needed for operation, inspection, sampling, maintenance, and repair of the surface impoundment provided that each opening is closed when not in use (e.g., access hatches, sampling ports). Examples of a cover for a surface impoundment include, but are not limited to, a floating membrane cover placed on the surface of the material in the surface impoundment or an air-supported structure installed over the surface impoundment.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in §63.944(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in containers using air emission controls in accordance with the standards specified in this subpart.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

[61 FR 34186, July 1, 1996, as amended at 64 FR 38988, July 20, 1999]

§ 63.942 Standards—Surface impoundment floating membrane cover.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from a surface impoundment using a floating membrane cover.

(b) The surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:

(1) The floating membrane cover shall be designed to float on the liquid surface during normal operations, and form a continuous barrier over the entire surface area of the liquid.

(2) The cover shall be fabricated from a synthetic membrane material that is either:

(i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm); or

(ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in paragraph (b)(2)(i) of this section; and chemical and physical properties that maintain the material integrity for the intended service life of the material.

(3) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or

between the interface of the cover edge and its foundation mountings.

(4) Except as provided for in paragraph (b)(5) of this section, each opening in the floating membrane cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(5) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(6) The closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

(c) Whenever a regulated-material is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:

(1) Opening of closure devices or removal of the cover is allowed at the following times:

(i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

(ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the pressure in the vapor headspace underneath the cover in accordance with the cover design specifications. The device shall be designed to operate with no detectable organic emissions as defined in § 63.941 of this subpart when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the cover vapor headspace pressure is within the pressure operating range determined by the owner or operator based on the cover manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitible, explosive, reactive, or hazardous materials.

(3) Opening of a safety device, as defined in § 63.941 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the floating membrane cover in accordance with the procedures specified in § 63.946(a) of this subpart.

§ 63.943 Standards—Surface impoundment vented to control device.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from a surface impoundment using a cover and venting the vapor headspace underneath the cover through a closed-vent system to a control device.

(b) The surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(1) The cover and its closure devices shall be designed to form a continuous

barrier over the entire surface area of the liquid in the surface impoundment.

(2) Each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in § 63.945(a) of this subpart.

(3) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

(4) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(c) Whenever a regulated-material is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

(1) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

(i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

(ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(2) Opening of a safety device, as defined in § 63.941 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in § 63.946(b) of this subpart.

§ 63.944 [Reserved]

§ 63.945 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover

and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (a)(8)(i) or (a)(8)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (a)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (a)(9)(i) and (a)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 10,000 ppmv.

(b) [Reserved]

[64 FR 38988, July 20, 1999]

§ 63.946 Inspection and monitoring requirements.

(a) Owners and operators that use a surface impoundment equipped with a floating membrane cover in accordance with the provisions of § 63.942 of this subpart shall meet the following requirements:

(1) The floating membrane cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or

gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator must perform an initial inspection following installation of the floating membrane cover. Thereafter, the owner or operator must perform the inspections at least once per calendar year except as provided for in paragraph (d) of this section.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.947(a)(2) of this subpart.

(b) Owners and operators that use a surface impoundment equipped with a cover and vented through a closed-vent system to a control device in accordance with the provisions of § 63.943 of this subpart shall inspect the air emission control equipment as follows:

(1) The owner or operator shall visually inspect the cover in accordance with the following requirements:

(i) The cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the interface of the roof edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator must perform an initial inspection following installation of the cover. Thereafter, the owner or operator must perform the inspections at least once per calendar year except as provide for in paragraph (d) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.947(a)(2) of this subpart.

(2) The owner or operator shall inspect and monitor the closed-vent system and the control device in accordance with the requirements specified in § 63.693 in 40 CFR part 63 subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(c) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (c)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative surface impoundment or tank capacity is available at the site to accept the regulated-material normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect at the next time the process or unit that is generating the regulated-material managed in the surface impoundment stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(3) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.947 of this subpart.

(d) *Alternative inspection and monitoring interval.* Following the initial inspection and monitoring of a piece of air pollution control equipment in accordance with the applicable provisions of this section, subsequent inspection and monitoring of the equipment may be performed at intervals longer than 1 year when an owner or operator determines that performing the required inspection or monitoring procedures would expose a worker to dangerous, hazardous, or otherwise unsafe conditions and the owner or operator complies with the requirements specified in

paragraphs (d)(1) and (d)(2) of this section.

(1) The owner or operator must prepare and maintain at the plant site written documentation identifying the specific air pollution control equipment designated as ''unsafe to inspect and monitor.'' The documentation must include for each piece of air pollution control equipment designated as such a written explanation of the reasons why the equipment is unsafe to inspect or monitor using the applicable procedures under this section.

(2) The owner or operator must develop and implement a written plan and schedule to inspect and monitor the air pollution control equipment using the applicable procedures specified in this section during times when a worker can safely access the air pollution control equipment. The required inspections and monitoring must be performed as frequently as practicable but do not need to be performed more frequently than the periodic schedule that would be otherwise applicable to the air pollution control equipment under the provisions of this section. A copy of the written plan and schedule must be maintained at the plant site.

[61 FR 34186, July 1, 1996, as amended at 64 FR 38989, July 20, 1999]

§ 63.947 Recordkeeping requirements.

(a) Each owner or operator shall prepare and maintain the following records:

(1) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment.

(2) A record for each inspection required by § 63.946 of this subpart that includes the following information: a surface impoundment identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by § 63.946 of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.946(c)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) Owners and operators that use a surface impoundment equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.943 of this subpart shall prepare and maintain the records required for the closed-vent system and control device in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

§ 63.948 Reporting requirements.

Owners and operators that use a surface impoundment equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.943 of this subpart shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

§ 63.949 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.940, 63.942, and 63.943. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37355, June 23, 2003]

Subpart RR—National Emission Standards for Individual Drain Systems

SOURCE: 61 FR 34193, July 1, 1996, unless otherwise noted.

§ 63.960 Applicability.

(a) The provisions of this subpart apply to the control of air emissions from individual drain systems for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for individual drain systems are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

(b) [Reserved]

§ 63.961 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, cover, hatch, lid, plug, seal, valve, or other type of fitting that, when the device is secured in the closed position, prevents or reduces air emissions to the atmosphere by blocking an opening to the individual drain system. Closure devices include devices that are detachable (e.g., a plug or manhole cover), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Hard-piping means pipe or tubing that is manufactured and properly installed in accordance with relevant standards (e.g., ANSI B31–3) and good engineering practices.

Individual drain system means a stationary system used to convey regulated-material to a waste management unit or to discharge or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer lines and other junction boxes (e.g., manholes, sumps, and lift stations) conveying regulated-material. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (e.g., stormwater sewer system) and is segregated from all other individual drain systems.

Junction box means a sump, manhole, or access point to a sewer line or a lift station.

Regulated-material means the wastewater streams, residuals, and any other materials specified by the referencing subpart to be managed in accordance with the standards under this subpart.

Sewer line means a lateral, trunk line, branch line, or other conduit used to convey regulated-material to a downstream waste management unit. Sewer lines include pipes, grates, and trenches.

Waste management unit means the equipment, structure, or device used to convey, store, treat, or dispose of regulated-material. Examples of waste management units include: wastewater tanks, surface impoundments, individual drain systems, and biological wastewater treatment units. Examples

of equipment that may be waste management units include containers, air flotation units, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units.

Water seal means a seal pot, p-leg trap, or other type of trap filled with water (e.g., flooded sewers that maintain liquid levels adequate to prevent air flow through the system) that creates a liquid barrier between the sewer line and the atmosphere. The liquid level of the seal must be maintained in the vertical leg of a drain in order to be considered a water seal.

[61 FR 34193, July 1, 1996, as amended at 64 FR 38989, July 20, 1999]

§ 63.962 Standards.

(a) The owner or operator subject to this subpart shall control air emissions from the individual drain system using one or a combination of the following:

(1) Covers, water seals, and other air emission control equipment as specified in paragraph (b) of this section.

(2) Hard-piping.

(3) Venting of the individual drain system through a closed vent system to a control device in accordance with the following requirements:

(i) The individual drain system is designed and operated such that an internal pressure in the vapor headspace in the system is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed vent system and control device are designed and operated in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(b) Owners and operators controlling air emissions from an individual drain system in accordance with paragraph (a)(1) of this section shall meet the following requirements:

(1) The individual drain system shall be designed to segregate the organic vapors from regulated material managed in the controlled individual drain system from entering any other individual drain system that is not controlled for air emissions in accordance with the standards specified in this subpart.

(2) *Drain control requirements.* Each drain shall be equipped with either a water seal or a closure device in accordance with the following requirements:

(i) When a water seal is used, the water seal shall be designed such that either:

(A) The outlet to the pipe discharging the regulated-material extends below the liquid surface in the water seal of the drain; or

(B) A flexible shield or other device is installed which restricts wind motion across the open space between the outlet of the pipe discharging the regulated material and the drain.

(ii) When a closure device is used (e.g., securing a cap or plug on a drain that is not receiving regulated-material), the closure device shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the drain opening and the closure device.

(3) *Junction box control requirements.* Each junction box shall be equipped with controls as follows:

(i) The junction box shall be equipped with a closure device (e.g., manhole cover, access hatch) that is designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the junction box opening and the closure device.

(ii) If the junction box is vented, the junction box shall be vented in accordance with the following requirements:

(A) The junction box shall be vented through a closed vent system to a control device except as provided for in paragraph (b)(3)(ii)(B) of this section. The closed vent system and control device shall be designed and operated in accordance with the standards specified in § 63.693.

(B) As an alternative to paragraph (b)(3)(ii)(A) of this section, the owner or operator may vent the junction box directly to the atmosphere when all of the following conditions are met:

(*1*) The junction box is filled and emptied by gravity flow (i.e., there is no pump) or is operated with no more than slight fluctuations in the liquid level. Large changes in the size of the junction box vapor headspace created by using a pump to repeatedly empty and then refill the junction box do not meet this condition.

(*2*) The vent pipe installed on the junction box shall be at least 90 centimeters in length and no greater than 10 centimeters in nominal inside diameter.

(*3*) Water seals are installed at the liquid entrance(s) to or exit from the junction box to restrict ventilation in the individual drain system and between components in the individual drain system. The owner or operator shall demonstrate (e.g., by visual inspection or smoke test) upon request by the Administrator that the junction box water seal is properly designed and restricts ventilation.

(4) *Sewer line control requirements.* Each sewer line shall not be open to the atmosphere and shall be covered or closed in a manner such that there are no visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.

(5) *Operating requirements.* The owner or operator shall operate the air emission controls required by paragraphs (b)(2) through (b)(4) of this section in accordance with the following requirements:

(i) Each closure device shall be maintained in a closed position whenever regulated-material is in the individual drain system except when it is necessary to remove or open the closure device for sampling or removing material in the individual drain system, or for equipment inspection, maintenance, or repair.

(ii) Each drain equipped with a water seal and open to the atmosphere shall be operated to ensure that the liquid in the water seal is maintained at the appropriate level. Examples of acceptable means for complying with this provision include but are not limited to using a flow-monitoring device indicating positive flow from a main to a branch water line supplying a trap; continuously dripping water into the trap using a hose; or regular visual observations.

(iii) Each closed-vent system and the control device used to comply with paragraph (b)(3)(ii)(A) of this section shall be operated in accordance with the standards specified in 40 CFR 63.693.

[61 FR 34193, July 1, 1996, as amended at 64 FR 38990, July 20, 1999; 66 FR 1267, Jan. 8, 2001]

§ 63.963 [Reserved]

§ 63.964 Inspection and monitoring requirements.

(a) The owner or operator shall inspect the individual drain system in accordance with the following requirements:

(1) The individual drain system shall be visually inspected by the owner or operator as follows to check for defects that could result in air emissions to the atmosphere.

(i) The owner or operator shall visually inspect each drain as follows:

(A) In the case when the drain is using a water seal to control air emissions, the owner or operator shall verify appropriate liquid levels are being maintained and identify any other defects that could reduce water seal control effectiveness.

(B) In the case when the drain is using a closure device to control air emissions, the owner or operator shall visually inspect each drain to verify that the closure device is in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing plugs, caps, or other closure devices.

(ii) The owner or operator shall visually inspect each junction box to verify that closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(iii) The owner or operator shall visually inspect the unburied portion of

each sewer line to verify that all closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.

(iv) The owner or operator shall perform the inspections initially at the time of installation of the water seals and closure devices for the individual drain system and, thereafter, at least once every year.

(v) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b) of this section.

(vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.965(a) of this subpart.

(2) The owner or operator shall inspect and monitor the closed-vent system and the control device in accordance with the requirements specified in § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(b) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 15 calendar days after detection except as provided in paragraph (b)(2) of this section.

(2) Repair of a defect may be delayed beyond 15 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the individual drain system and no alternative capacity is available at the facility site to accept the regulated-material normally managed in the individual drain system. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the regulated-material managed in the individual drain system stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(3) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.965(a)(3) of this subpart.

[61 FR 34193, July 1, 1996, as amended at 64 FR 38990, July 20, 1999]

§ 63.965 Recordkeeping requirements.

(a) Each owner or operator complying with § 63.962(a)(1) of this subpart shall prepare and maintain the following records:

(1) A written site-specific individual drain system inspection plan that includes a drawing or schematic of the individual drain system and identifies each drain, junction box, and sewer line location.

(2) A record of the date that each inspection required by § 63.964(a) of this subpart is performed.

(3) When applicable, a record for each defect detected during inspections required by § 63.964(a) of this subpart that includes the following information: the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and the date that the corrective action was completed. In the event that repair of the defect is delayed in accordance with the provisions of § 63.964(b)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) Owners and operators that use a closed-vent system and a control device in accordance with the provisions of § 63.962 shall prepare and maintain the records required for the closed-vent system and control device in accordance with the requirements of § 63.693.

[61 FR 34193, July 1, 1996, as amended at 64 FR 38991, July 20, 1999; 66 FR 1267, Jan. 8, 2001]

§ 63.966 Reporting requirements.

Owners and operators that use a closed-vent system and a control device in accordance with the provisions of § 63.962 shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of § 63.693.

[66 FR 1267, Jan. 8, 2001]

§ 63.967 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.960 and 63.962. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions subpart DD of this part.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37355, June 23, 2003]

Subpart SS—National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process

SOURCE: 64 FR 34866, June 29, 1999, unless otherwise noted.

§ 63.980 Applicability.

The provisions of this subpart include requirements for closed vent systems, control devices and routing of air emissions to a fuel gas system or process. These provisions apply when another subpart references the use of this subpart for such air emission control. These air emission standards are placed here for administrative convenience and only apply to those owners and operators of facilities subject to a referencing subpart. The provisions of 40 CFR part 63, subpart A (General Provisions) do not apply to this subpart except as specified in a referencing subpart.

§ 63.981 Definitions.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a reference test or equivalent method, and that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part 63, or previously approved by the Administrator prior to the promulgation date of standards for an affected source or affected facility under a referencing subpart, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this subpart.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

By compound means by individual stream components, not carbon equivalents.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device. Closed vent system does not include the vapor collection system that is part of any tank truck or railcar.

Closed vent system shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a closed vent system or part of a closed vent system consistent with safety constraints and during which repairs can be effected.

An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a closed vent system shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the closed vent system or part of the closed vent system of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled closed vent system shutdown, is not a closed vent system shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not closed vent system shutdowns.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every 15 minutes and recorded at the frequency specified in § 63.998(b).

Control device means, with the exceptions noted below, a combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart or a referencing subpart. For process vents from continuous unit operations at affected sources in subcategories where the applicability criteria includes a TRE index value, recovery devices are not considered to be control devices. Primary condensers on steam strippers or fuel gas systems are not considered to be control devices.

Control System means the combination of the closed vent system and the control devices used to collect and control vapors or gases from a regulated emission source.

Day means a calendar day.

Ductwork means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Final recovery device means the last recovery device on a process vent stream from a continuous unit operation at an affected source in a subcategory where the applicability criteria includes a TRE index value. The final recovery device usually discharges to a combustion device, recapture device, or directly to the atmosphere.

First attempt at repair, for the purposes of this subpart, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in § 63.983(c) to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Flame zone means the portion of the combustion chamber in a boiler or process heater occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is, or whether the valve position would allow gas flow to be, present in a line.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous streams generated by onsite operations, may blend them with other sources of gas, and transports the gaseous streams for use as fuel gas in combustion devices or in-process combustion equipment such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards, such as ANSI B31.3.

High throughput transfer rack means those transfer racks that transfer a total of 11.8 million liters per year or greater of liquid containing regulated material.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas. The above energy recovery section limitation does not apply to an energy recovery section used solely to preheat the incoming vent stream or combustion air.

Low throughput transfer rack means those transfer racks that transfer less than a total of 11.8 million liters per year of liquid containing regulated material.

Operating parameter value means a minimum or maximum value established for a control device parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limit or operating limit.

Organic monitoring device means a unit of equipment used to indicate the concentration level of organic compounds based on a detection principle such as infra-red, photo ionization, or thermal conductivity.

Owner or operator means any person who owns, leases, operates, controls, or supervises a regulated source or a stationary source of which a regulated source is a part.

Performance level means the level at which the regulated material in the gases or vapors vented to a control or recovery device is removed, recovered, or destroyed. Examples of control device performance levels include: achieving a minimum organic reduction efficiency expressed as a percentage of regulated material removed or destroyed in the control device inlet stream on a weight-basis; achieving an organic concentration in the control device exhaust stream that is less than a maximum allowable limit expressed in parts per million by volume on a dry basis corrected to 3 percent oxygen if a combustion device is the control device and supplemental combustion air is used to combust the emissions; or maintaining appropriate control device operating parameters indicative of the device performance at specified values.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission limit as specified in the performance test section of this subpart or in the referencing subpart.

Primary fuel means the fuel that provides the principal heat input to a device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed combustion device that transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water. A process heater may, as a secondary function, heat water in unfired heat recovery sections.

Recapture device means an individual unit of equipment capable of and used for the purpose of recovering chemicals, but not normally for use, reuse, or sale. For example, a recapture device may recover chemicals primarily for disposal. Recapture devices include, but are not limited to, absorbers, carbon adsorbers, and condensers. For purposes of the monitoring, recordkeeping and reporting requirements of this subpart, recapture devices are considered recovery devices.

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. For purposes of the monitoring, recordkeeping, and reporting requirements of this subpart, recapture devices are considered recovery devices.

Recovery operations equipment means the equipment used to separate the

components of process streams. Recovery operations equipment includes distillation units, condensers, etc. Equipment used for wastewater treatment shall not be considered recovery operations equipment.

Referencing subpart means the subpart which refers an owner or operator to this subpart.

Regulated material, for purposes of this subpart, refers to vapors from volatile organic liquids (VOL), volatile organic compounds (VOC), or hazardous air pollutants (HAP), or other chemicals or groups of chemicals that are regulated by a referencing subpart.

Regulated source for the purposes of this subpart, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to a referencing subpart.

Repaired, for the purposes of this subpart, means that equipment; is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of this subpart; and unless otherwise specified in applicable provisions of this subpart, is inspected as specified in §63.983(c) to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the gas streams are conveyed to any enclosed portion of a process unit where the emissions are recycled and/or consumed in the same manner as a material that fulfills the same function in the process; and/or transformed by chemical reaction into materials that are not regulated materials; and/or incorporated into a product; and/or recovered.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this subpart. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Secondary fuel means a fuel fired through a burner other than the primary fuel burner that provides supplementary heat in addition to the heat provided by the primary fuel.

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Specific gravity monitoring device means a unit of equipment used to monitor specific gravity and having a minimum accuracy of ±0.02 specific gravity units.

Supplemental combustion air means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not considered supplemental combustion air. Air required to operate combustion device burner(s) is not considered supplemental combustion air. Air required to ensure the proper operation of catalytic oxidizers, to include the intermittent addition of air upstream of the catalyst bed to maintain a minimum threshold flow rate through the catalyst bed or to avoid excessive temperatures in the catalyst bed, is not considered to be supplemental combustion air.

Temperature monitoring device means a unit of equipment used to monitor temperature and having a minimum accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±1.2 degrees Celsius (°C), whichever is greater.

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999; 67 FR 46277, July 12, 2002]

§63.982 Requirements.

(a) *General compliance requirements for storage vessels, process vents, transfer racks, and equipment leaks.* An owner or operator who is referred to this subpart for controlling regulated material emissions from storage vessels, process vents, low and high throughput transfer racks, or equipment leaks by venting emissions through a closed vent system to a flare, nonflare control device or routing to a fuel gas system or process shall comply with the applicable requirements of paragraphs (a)(1) through (4) of this section.

(1) *Storage vessels.* The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(1), and (d) of this section.

(2) *Process vents.* The owner or operator shall comply with the applicable

provisions of paragraphs (b), (c)(2), and (e) of this section.

(3) *Transfer racks.* (i) For low throughput transfer racks, the owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(1), and (d) of this section.

(ii) For high throughput transfer racks, the owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(2), and (d) of this section.

(4) *Equipment leaks.* The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(3), and (d) of this section.

(b) *Closed vent system and flare.* Owners or operators that vent emissions through a closed vent system to a flare shall meet the requirements in § 63.983 for closed vent systems; § 63.987 for flares; § 63.997 (a), (b) and (c) for provisions regarding flare compliance assessments; the monitoring, recordkeeping, and reporting requirements referenced therein; and the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999. No other provisions of this subpart apply to emissions vented through a closed vent system to a flare.

(c) *Closed vent system and nonflare control device.* Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in § 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999, and the applicable requirements listed in paragraphs (c)(1) through (3) of this section.

(1) For storage vessels and low throughput transfer racks, the owner or operator shall meet the requirements in § 63.985 for nonflare control devices and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to low throughput transfer rack emissions or storage vessel emissions vented through a closed vent system to a nonflare control device unless specifically required in the monitoring plan submitted under § 63.985(c).

(2) For process vents and high throughput transfer racks, the owner or operator shall meet the requirements applicable to the control devices being used in § 63.988, § 63.990 or § 63.995; the applicable general monitoring requirements of § 63.996 and the applicable performance test requirements and procedures of § 63.997; and the monitoring, recordkeeping and reporting requirements referenced therein. Owners or operators subject to halogen reduction device requirements under a referencing subpart must also comply with § 63.994 and the monitoring, recordkeeping, and reporting requirements referenced therein. The requirements of §§ 63.984 through 63.986 do not apply to process vents or high throughput transfer racks.

(3) For equipment leaks, owners or operators shall meet the requirements in § 63.986 for nonflare control devices used for equipment leak emissions and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to equipment leak emissions vented through a closed vent system to a nonflare control device.

(d) *Route to a fuel gas system or process.* Owners or operators that route emissions to a fuel gas system or to a process shall meet the requirements in § 63.984, the monitoring, recordkeeping, and reporting requirements referenced therein, and the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999. No other provisions of this subpart apply to emissions being routed to a fuel gas system or process.

(e) *Final recovery devices.* Owners or operators who use a final recovery device to maintain a TRE above a level specified in a referencing subpart shall meet the requirements in § 63.993 and the monitoring, recordkeeping, and reporting requirements referenced therein that are applicable to the recovery device being used; the applicable monitoring requirements in § 63.996 and the recordkeeping and reporting requirements referenced therein; and the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999. No other provisions of this subpart apply to process vent emissions routed to a final recovery device.

(f) *Combined emissions.* When emissions from different emission types (e.g., emissions from process vents,

transfer racks, and/or storage vessels) are combined, an owner or operator shall comply with the requirements of either paragraph (f)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of emissions in the stream (e.g., the requirements of paragraph (a)(2) of this section for process vents, and the requirements of paragraph (a)(3) of this section for transfer racks); or

(2) Comply with the first set of requirements identified in paragraphs (f)(2)(i) through (iii) of this section which applies to any individual emission stream that is included in the combined stream. Compliance with paragraphs (f)(2)(i) through (iii) of this section constitutes compliance with all other emissions requirements for other emission streams.

(i) The requirements of § 63.982(a)(2) for process vents, including applicable monitoring, recordkeeping, and reporting;

(ii) The requirements of § 63.982(a)(3)(ii) for high throughput transfer racks, including applicable monitoring, recordkeeping, and reporting;

(iii) The requirements of § 63.982(a)(1) or (a)(3)(i) for control of emissions from storage vessels or low throughput transfer racks, including applicable monitoring, recordkeeping, and reporting.

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999]

§ 63.983 Closed vent systems.

(a) *Closed vent system equipment and operating requirements.* Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) *Collection of emissions.* Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.

(2) *Period of operation.* Closed vent systems used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to, or collected by, them.

(3) *Bypass monitoring.* Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the owner or operator shall comply with the provisions of either paragraphs (a)(3)(i) or (ii) of this section for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

(i) Properly install, maintain, and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in § 63.998(d)(1)(ii)(A). The flow indicator shall be installed at the entrance to any bypass line.

(ii) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records shall be generated as specified in § 63.998(d)(1)(ii)(B).

(4) *Loading arms at transfer racks.* Each closed vent system collecting regulated material from a transfer rack shall be designed and operated so that regulated material vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere.

(5) *Pressure relief devices in a transfer rack's closed vent system.* The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's closed vent system shall open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to this paragraph.

(b) *Closed vent system inspection and monitoring requirements.* The provisions of this subpart apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in § 63.998(d)(1)(iii) and (iv) of this section.

(1) Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs (b)(2) and (3) of this section, each closed vent system shall be inspected as specified in paragraph (b)(1)(i) or (ii) of this section.

(i) If the closed vent system is constructed of hard-piping, the owner or

operator shall comply with the requirements specified in paragraphs (b)(1)(i)(A) and (B) of this section.

(A) Conduct an initial inspection according to the procedures in paragraph (c) of this section; and

(B) Conduct annual inspections for visible, audible, or olfactory indications of leaks.

(ii) If the closed vent system is constructed of ductwork, the owner or operator shall conduct an initial and annual inspection according to the procedures in paragraph (c) of this section.

(2) Any parts of the closed vent system that are designated, as described in § 63.998(d)(1)(i), as unsafe to inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the conditions of paragraphs (b)(2)(i) and (ii) of this section are met.

(i) The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (b)(1) of this section; and

(ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.

(3) Any parts of the closed vent system that are designated, as described in § 63.998(d)(1)(i), as difficult-to-inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the provisions of paragraphs (b)(3)(i) and (ii) of this section apply.

(i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and

(ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

(4) For each bypass line, the owner or operator shall comply with paragraph (b)(4)(i) or (ii) of this section.

(i) If a flow indicator is used, take a reading at least once every 15 minutes.

(ii) If the bypass line valve is secured in the non-diverting position, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line.

(c) *Closed vent system inspection procedures.* The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) Each closed vent system subject to this paragraph shall be inspected according to the procedures specified in paragraphs (c)(1)(i) through (vii) of this section.

(i) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60, appendix A, except as specified in this section.

(ii) Except as provided in (c)(1)(iii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 must be for the representative composition of the process fluid and not of each individual VOC in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not organic HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted.

(iii) If no instrument is available at the plant site that will meet the performance criteria of Method 21 specified in paragraph (c)(1)(ii) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in paragraph (c)(1)(ii) of this section.

(iv) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(v) Calibration gases shall be as specified in paragraphs (c)(1)(v)(A) through (C) of this section.

(A) Zero air (less than 10 parts per million hydrocarbon in air); and

(B) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than

methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (c)(1)(ii) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(C) If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million.

(vi) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in this section. The owner or operator shall subtract the background reading from the maximum concentration indicated by the instrument.

(vii) If the owner or operator elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak.

(2) The instrument probe shall be traversed around all potential leak interfaces as described in Method 21 of 40 CFR part 60, appendix A.

(3) Except as provided in paragraph (c)(4) of this section, inspections shall be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor.

(4) Inspections of the closed vent system collecting regulated material from a transfer rack shall be performed only while a tank truck or railcar is being loaded or is otherwise pressurized to normal operating conditions with regulated material or any other detectable gas or vapor.

(d) *Closed vent system leak repair provisions.* The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph (b)(1)(i)(B) of this section, the owner or operator shall follow the procedure specified in either paragraph (d)(1)(i) or (ii) of this section.

(i) The owner or operator shall eliminate the leak.

(ii) The owner or operator shall monitor the equipment according to the procedures in paragraph (c) of this section.

(2) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in paragraph (d)(3) of this section. Records shall be generated as specified in §63.998(d)(1)(iii) when a leak is detected.

(i) A first attempt at repair shall be made no later than 5 days after the leak is detected.

(ii) Except as provided in paragraph (d)(3) of this section, repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

(3) Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in §63.981, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999; 67 FR 46277, July 12, 2002]

§63.984 Fuel gas systems and processes to which storage vessel, transfer rack, or equipment leak regulated material emissions are routed.

(a) *Equipment and operating requirements for fuel gas systems and processes.* (1) Except during periods of start-up, shutdown and malfunction as specified

in the referencing subpart, the fuel gas system or process shall be operating at all times when regulated material emissions are routed to it.

(2) The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process shall open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to this paragraph.

(b) *Fuel gas system and process compliance assessment.* (1) If emissions are routed to a fuel gas system, there is no requirement to conduct a performance test or design evaluation.

(2) If emissions are routed to a process, the regulated material in the emissions shall meet one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section. The owner or operator of storage vessels subject to this paragraph shall comply with the compliance demonstration requirements in paragraph (b)(3) of this section.

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not regulated materials;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(3) To demonstrate compliance with paragraph (b)(2) of this section for a storage vessel, the owner or operator shall prepare a design evaluation (or engineering assessment) that demonstrates the extent to which one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section are being met.

(c) *Statement of connection.* For storage vessels and transfer racks, the owner or operator shall submit the statement of connection reports for fuel gas systems specified in § 63.999(b)(1)(ii), as appropriate.

§ 63.985 Nonflare control devices used to control emissions from storage vessels and low throughput transfer racks.

(a) *Nonflare control device equipment and operating requirements.* The owner or operator shall operate and maintain the nonflare control device so that the monitored parameters defined as required in paragraph (c) of this section remain within the ranges specified in the Notification of Compliance Status whenever emissions of regulated material are routed to the control device except during periods of start-up, shutdown, and malfunction as specified in the referencing subpart.

(b) *Nonflare control device design evaluation or performance test requirements.* When using a control device other than a flare, the owner or operator shall comply with the requirements in paragraphs (b)(1)(i) or (ii) of this section, except as provided in paragraphs (b)(2) and (3) of this section.

(1) *Design evaluation or performance test results.* The owner or operator shall prepare and submit with the Notification of Compliance Status, as specified in § 63.999(b)(2), either a design evaluation that includes the information specified in paragraph (b)(1)(i) of this section, or the results of the performance test as described in paragraph (b)(1)(ii) of this section.

(i) *Design evaluation.* The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during the reasonably expected maximum storage vessel filling or transfer loading rate. This documentation is to include a description of the gas stream that enters the control device, including flow and regulated material content, and the information specified in paragraphs (b)(1)(i)(A) through (E) of this section, as applicable. For storage vessels, the description of the gas stream that enters the control device shall be provided for varying liquid level conditions. This documentation shall be submitted with the Notification of Compliance Status as specified in § 63.999(b)(2).

(A) The efficiency determination is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device.

(B) If an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760 °C is used to meet an emission reduction requirement specified in a referencing subpart for storage vessels

and transfer racks, documentation that those conditions exist is sufficient to meet the requirements of paragraph (b)(1)(i) of this section.

(C) Except as provided in paragraph (b)(1)(i)(B) of this section for enclosed combustion devices, the design evaluation shall include the estimated autoignition temperature of the stream being combusted, the flow rate of the stream, the combustion temperature, and the residence time at the combustion temperature.

(D) For carbon adsorbers, the design evaluation shall include the estimated affinity of the regulated material vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity, the temperature, the flow rate of the inlet stream and, if applicable, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, pressure drop shall be included.

(E) For condensers, the design evaluation shall include the final temperature of the stream vapors, the type of condenser, and the design flow rate of the emission stream.

(ii) *Performance test.* A performance test, whether conducted to meet the requirements of this section, or to demonstrate compliance for a process vent or high throughput transfer rack as required by §63.988(b), §63.990(b), or §63.995(b), is acceptable to demonstrate compliance with emission reduction requirements for storage vessels and transfer racks. The owner or operator is not required to prepare a design evaluation for the control device as described in paragraph (b)(1)(i) of this section if a performance test will be performed that meets the criteria specified in paragraphs (b)(1)(ii)(A) and (B) of this section.

(A) The performance test will demonstrate that the control device achieves greater than or equal to the required control device performance level specified in a referencing subpart for storage vessels or transfer racks; and

(B) The performance test meets the applicable performance test requirements and the results are submitted as part of the Notification of Compliance Status as specified in §63.999(b)(2).

(2) *Exceptions.* A design evaluation or performance test is not required if the owner or operator uses a combustion device meeting the criteria in paragraph (b)(2)(i), (ii), (iii), or (iv) of this section.

(i) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater.

(ii) A boiler or process heater burning hazardous waste for which the owner or operator meets the requirements specified in paragraph (b)(2)(ii)(A) or (B) of this section.

(A) The boiler or process heater has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H, or

(B) The boiler or process heater has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(iii) A hazardous waste incinerator for which the owner or operator meets the requirements specified in paragraph (b)(2)(iii)(A) or (B) of this section.

(A) The incinerator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O; or

(B) The incinerator has certified compliance with the interim status requirements of 40 CFR part 265, subpart O; or

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

(3) *Prior design evaluations or performance tests.* If a design evaluation or performance test is required in the referencing subpart or was previously conducted and submitted for a storage vessel or low throughput transfer rack, then a performance test or design evaluation is not required.

(c) *Nonflare control device monitoring requirements.* (1) The owner or operator shall submit with the Notification of Compliance Status, a monitoring plan containing the information specified in §63.999(b)(2)(i) and (ii) to identify the parameters that will be monitored to assure proper operation of the control device.

(2) The owner or operator shall monitor the parameters specified in the Notification of Compliance Status or in

the operating permit application or amendment. Records shall be generated as specified in § 63.998(d)(2)(i).

§ 63.986 Nonflare control devices used for equipment leaks only.

(a) *Equipment and operating requirements.* (1) Owners or operators using a nonflare control device to meet the applicable requirements of a referencing subpart for equipment leaks shall meet the requirements of this section.

(2) Control devices used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Performance test requirements.* A performance test is not required for any nonflare control device used only to control emissions from equipment leaks.

(c) *Monitoring requirements.* Owners or operators of control devices that are used to comply only with the provisions of a referencing subpart for control of equipment leak emissions shall monitor these control devices to ensure that they are operated and maintained in conformance with their design. The owner or operator shall maintain the records as specified in § 63.998(d)(4).

§ 63.987 Flare requirements.

(a) *Flare equipment and operating requirements.* Flares subject to this subpart shall meet the performance requirements in 40 CFR 63.11(b) (General Provisions).

(b) *Flare compliance assessment.* (1) The owner or operator shall conduct an initial flare compliance assessment of any flare used to comply with the provisions of this subpart. Flare compliance assessment records shall be kept as specified in § 63.998(a)(1) and a flare compliance assessment report shall be submitted as specified in § 63.999(a)(2). An owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet regulated material or total organic compound concentration when a flare is used.

(2) [Reserved]

(3) Flare compliance assessments shall meet the requirements specified in paragraphs (b)(3)(i) through (iv) of this section.

(i) Method 22 of appendix A of part 60 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours, except for transfer racks as provided in (b)(3)(i)(A) or (B) of this section.

(A) For transfer racks, if the loading cycle is less than 2 hours, then the observation period for that run shall be for the entire loading cycle.

(B) For transfer racks, if additional loading cycles are initiated within the 2-hour period, then visible emissions observations shall be conducted for the additional cycles.

(ii) The net heating value of the gas being combusted in a flare shall be calculated using Equation 1:

$$H_T = K_1 \sum_{j=1}^{n} D_j H_j \qquad \text{[Eq. 1]}$$

Where:

H_T = Net heating value of the sample, megajoules per standard cubic meter; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 millimeters of mercury (30 inches of mercury), but the standard temperature for determining the volume corresponding to one mole is 20 °C;

K_1 = 1.740×10^{-7} (parts per million by volume)$^{-1}$ (gram-mole per standard cubic meter) (megajoules per kilocalories), where the standard temperature for gram mole per standard cubic meter is 20 °C;

n = number of sample components;

D_j = Concentration of sample component j, in parts per million by volume on a wet basis, as measured for organics by Method 18 of 40 CFR part 60, appendix A, or by ASTM D6420–18 (incorporated by reference, see § 63.14) under the conditions specified in § 63.997(e)(2)(iii)(D)(*1*) through (*3*). Hydrogen and carbon monoxide are measured by ASTM D1946–90 (Reapproved 1994) (incorporated by reference, see § 63.14); and

H_j = Net heat of combustion of sample component j, kilocalories per gram mole at 25 °C and 760 millimeters of mercury (30 inches of mercury).

(iii) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in unit of standard temperature and pressure), as determined by Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate, by the unobstructed (free) cross sectional area of the flare tip.

(iv) Flare flame or pilot monitors, as applicable, shall be operated during any flare compliance assessment.

(c) *Flare monitoring requirements.* Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Flare flame monitoring and compliance records shall be kept as specified in § 63.998(a)(1) and reported as specified in § 63.999(a).

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999; 67 FR 46277, July 12, 2002; 85 FR 40417, July 6, 2020]

§ 63.988 Incinerators, boilers, and process heaters.

(a) *Equipment and operating requirements.* (1) Owners or operators using incinerators, boilers, or process heaters to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of this section.

(2) Incinerators, boilers, or process heaters used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(3) For boilers and process heaters, the vent stream shall be introduced into the flame zone of the boiler or process heater.

(b) *Performance test requirements.* (1) Except as specified in § 63.997(b), and paragraph (b)(2) of this section, the owner or operator shall conduct an initial performance test of any incinerator, boiler, or process heater used to comply with the provisions of a referencing subpart and this subpart according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2). As provided in § 63.985(b)(1), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in § 63.986(b), no performance test is required for equipment leaks.

(2) An owner or operator is not required to conduct a performance test when any of the control devices specified in paragraphs (b)(2)(i) through (iv) of this section are used.

(i) 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;

(ii) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater;

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

(iv) A boiler or process heater burning hazardous waste for which the owner or operator meets the requirements specified in paragraph (b)(2)(iv)(A) or (B) of this section.

(A) The boiler or process heater has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or

(B) The boiler or process heater has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(c) *Incinerator, boiler, and process heater monitoring requirements.* Where an incinerator, boiler, or process heater is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in paragraph (c)(1), (2), or (3) of this section is required. Any boiler or process heater in which all vent streams are introduced with primary fuel or are used as the primary fuel is exempt from monitoring. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in the referencing subpart and § 3.996.

(1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.

(2) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(3) Where a boiler or process heater of less than 44 megawatts (150 million British thermal units per hour) design heat input capacity is used and the regulated vent stream is not introduced as or with the primary fuel, a temperature monitoring device shall be installed in the fire box.

§ 63.989 [Reserved]

§ 63.990 Absorbers, condensers, and carbon adsorbers used as control devices.

(a) *Equipment and operating requirements.* (1) Owners or operators using absorbers, condensers, or carbon adsorbers to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of this section.

(2) Absorbers, condensers, and carbon adsorbers used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Performance test requirements.* Except as specified in § 63.997(b), the owner or operator shall conduct an initial performance test of any absorber, condenser, or carbon adsorber used as a control device to comply with the provisions of the referencing subpart and this subpart according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2). As provided in § 63.985(b)(1), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in § 63.986(b), no performance test is required to demonstrate compliance for equipment leaks.

(c) *Monitoring requirements.* Where an absorber, condenser, or carbon adsorber is used as a control device, either an organic monitoring device capable of providing a continuous record, or the monitoring devices specified in paragraphs (c)(1) through (3), as applicable, shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(1) Where an absorber is used, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record, shall be used. If the difference between the specific gravity of the saturated scrubbing fluid and specific gravity of the fresh scrubbing fluid is less than 0.02 specific gravity units, an organic monitoring device capable of providing a continuous record shall be used.

(2) Where a condenser is used, a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used.

(3) Where a carbon adsorber is used, an integrating regeneration stream flow monitoring device having an accuracy of ±10 percent or better, capable of recording the total regeneration stream mass or volumetric flow for each regeneration cycle; and a carbon bed temperature monitoring device, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle, shall be used.

§ 63.991 [Reserved]

§ 63.992 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a 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 paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the nonopacity emissions standards in §§ 63.983(a) and (d), 63.984, 63.985(a), 63.986(a), 63.987(a), 63.988(a), 63.990(a), 63.993(a), 63.994(a), and 63.995(a) under § 63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(2) [Reserved]

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

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

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

[67 FR 46277, July 12, 2002]

§ 63.993 Absorbers, condensers, carbon adsorbers and other recovery devices used as final recovery devices.

(a) *Final recovery device equipment and operating requirements.* (1) Owners or operators using a final recovery device to maintain a TRE above a level specified in a referencing subpart shall meet the requirements of this section.

(2) Recovery devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Recovery device performance test requirements.* There are no performance test requirements for recovery devices. TRE index value determination information shall be recorded as specified in § 63.998(a)(3).

(c) *Recovery device monitoring requirements.* (1) Where an absorber is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, either an organic monitoring device capable of providing a continuous record or a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record, shall be used. If the difference between the specific gravity of the saturated scrubbing fluid and specific gravity of the fresh scrubbing fluid is less than 0.02 specific gravity units, an organic monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in § 63.996.

(2) Where a condenser is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, an organic monitoring device capable of providing a continuous record or a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(3) Where a carbon adsorber is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, an organic monitoring device capable of providing a continuous record or an integrating regeneration stream flow monitoring device having an accuracy of ±10 percent or better, capable of recording the total regeneration stream mass or volumetric flow for each regeneration cycle; and a carbon-bed temperature monitoring device, capable of recording the carbon-bed temperature after each regeneration and within 15 minutes of completing any cooling cycle shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(4) If an owner or operator uses a recovery device other than those listed in this subpart, the owner or operator shall submit a description of planned monitoring, reporting and recordkeeping procedures as specified in a referencing subpart. The Administrator will approve, deny, or modify based on

the reasonableness of the proposed monitoring, reporting and recordkeeping requirements as part of the review of the submission or permit application or by other appropriate means.

§ 63.994 Halogen scrubbers and other halogen reduction devices.

(a) *Halogen scrubber and other halogen reduction device equipment and operating requirements.* (1) An owner or operator of a halogen scrubber or other halogen reduction device subject to this subpart shall reduce the overall emissions of hydrogen halides and halogens by the control device performance level specified in a referencing subpart.

(2) Halogen scrubbers and other halogen reduction devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Halogen scrubber and other halogen reduction device performance test requirements.* (1) An owner or operator of a combustion device followed by a halogen scrubber or other halogen reduction device to control halogenated vent streams in accordance with a referencing subpart and this subpart shall conduct an initial performance test to determine compliance with the control efficiency or emission limits for hydrogen halides and halogens according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2).

(2) An owner or operator of a halogen scrubber or other halogen reduction technique used to reduce the vent stream halogen atom mass emission rate prior to a combustion device to comply with a performance level specified in a referencing subpart shall determine the halogen atom mass emission rate prior to the combustion device according to the procedures specified in the referencing subpart. Records of the halogen concentration in the vent stream shall be generated as specified in § 63.998(a)(4).

(c) *Halogen scrubber and other halogen reduction device monitoring requirements.* (1) Where a halogen scrubber is used, the monitoring equipment specified in paragraphs (c)(1)(i) and (ii) of this section is required for the scrubber. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(i) A pH monitoring device capable of providing a continuous record shall be installed to monitor the pH of the scrubber effluent.

(ii) A flow meter capable of providing a continuous record shall be located at the scrubber influent for liquid flow. Gas stream flow shall be determined using one of the procedures specified in paragraphs (c)(1)(ii)(A) through (D) of this section.

(A) The owner or operator may determine gas stream flow using the design blower capacity, with appropriate adjustments for pressure drop.

(B) The owner or operator may measure the gas stream flow at the scrubber inlet.

(C) If the scrubber is subject to regulations in 40 CFR parts 264 through 266 that have required a determination of the liquid to gas (L/G) ratio prior to the applicable compliance date for the process unit of which it is part as specified in a referencing subpart, the owner or operator may determine gas stream flow by the method that had been utilized to comply with those regulations. A determination that was conducted prior to that compliance date may be utilized to comply with this subpart if it is still representative.

(D) The owner or operator may prepare and implement a gas stream flow determination plan that documents an appropriate method that will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method that will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than start-ups, shutdowns, or malfunctions. The plan shall include a description of the methodology to be followed and an explanation of how the selected methodology will reliably determine the gas stream flow, and a description of the records that will be maintained to document the determination of gas stream flow. The

owner or operator shall maintain the plan as specified in a referencing subpart.

(2) Where a halogen reduction device other than a scrubber is used, the owner or operator shall follow the procedures specified in a referencing subpart in order to establish monitoring parameters.

§ 63.995 Other control devices.

(a) *Other control device equipment and operating requirements.* (1) Owners or operators using a control device other than one listed in §§ 63.985 through 63.990 to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of this section.

(2) Other control devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Other control device performance test requirements.* An owner or operator using a control device other than those specified in §§ 63.987 through 63.990 to comply with a performance level specified in a referencing subpart, shall perform an initial performance test according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2).

(c) *Other control device monitoring requirements.* If an owner or operator uses a control device other than those listed in this subpart, the owner or operator shall submit a description of planned monitoring, recordkeeping and reporting procedures as specified in a referencing subpart. The Administrator will approve, deny, or modify based on the reasonableness of the proposed monitoring, reporting and recordkeeping requirements as part of the review of the submission or permit application or by other appropriate means.

§ 63.996 General monitoring requirements for control and recovery devices.

(a) *General monitoring requirements applicability.* (1) This section applies to the owner or operator of a regulated source required to monitor under this subpart.

(2) Flares subject to § 63.987(c) are not subject to the requirements of this section.

(3) Flow indicators are not subject to the requirements of this section.

(b) *Conduct of monitoring.* (1) Monitoring shall be conducted as set forth in this section and in the relevant sections of this subpart unless the provision in either paragraph (b)(1)(i) or (ii) of this section applies.

(i) The Administrator specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or

(ii) The Administrator approves the use of alternatives to any monitoring requirements or procedures as provided in the referencing subpart or paragraph (d) of this section.

(2) When one CPMS is used as a backup to another CPMS, the owner or operator shall report the results from the CPMS used to meet the monitoring requirements of this subpart. If both such CPMS's are used during a particular reporting period to meet the monitoring requirements of this subpart, then the owner or operator shall report the results from each CPMS for the time during the six month period that the instrument was relied upon to demonstrate compliance.

(c) *Operation and maintenance of continuous parameter monitoring systems.* (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(2) The owner or operator of a regulated source shall maintain and operate each CPMS as specified in this section, or in a relevant subpart, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of a regulated source shall ensure the immediate repair or replacement of CPMS parts to correct ''routine'' or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.

(ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in § 63.998(c)(1)(ii)(E).

(iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used for the CPMS will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records as specified in § 63.998(c)(1)(i) and (ii), manufacturer's recommendations and specifications, and inspection of the CPMS.

(3) All CPMS's shall be installed and operational, and the data verified as specified in this subpart either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(4) All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.

(5) In accordance with the referencing subpart, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

(6) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the control or recovery device. In order to establish the range, the information required in § 63.999(b)(3) shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of § 63.997(b)(1) or a prior TRE index value determination, as applicable, or upon existing ranges or limits established under a referencing subpart. Where the regeneration stream flow and carbon bed temperature are monitored, the range shall be in terms of the total regeneration stream flow per regeneration cycle and the temperature of the carbon bed determined within 15 minutes of the completion of the regeneration cooling cycle.

(d) *Alternatives to monitoring requirements*—(1) *Alternatives to the continuous operating parameter monitoring and recordkeeping provisions.* An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in §§ 63.988(c), 63.990(c), 63.993(c), 63.994(c), 63.998(a)(2) through (4), 63.998(c)(2) and (3), as specified in § 63.999(d)(1).

(2) *Monitoring a different parameter than those listed.* An owner or operator may request approval to monitor a different parameter than those established in paragraph (c)(6) of this section or to set unique monitoring parameters if directed by § 63.994(c)(2) or § 63.995(c), as specified in § 63.999(d)(2).

§ 63.997 Performance test and compliance assessment requirements for control devices.

(a) *Performance tests and flare compliance assessments.* Where §§ 63.985 through 63.995 require, or the owner or operator elects to conduct, a performance test of a control device or a halogen reduction device, or a compliance assessment for a flare, the requirements of paragraphs (b) through (d) of this section apply.

(b) *Prior test results and waivers.* Initial performance tests and initial flare compliance assessments are required only as specified in this subpart or a referencing subpart.

(1) Unless requested by the Administrator, an owner or operator is not required to conduct a performance test or flare compliance assessment under this subpart if a prior performance test or compliance assessment was conducted using the same methods specified in § 63.997(e) or § 63.987(b)(3), as applicable, and either no process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance

test or compliance demonstration, with or without adjustments, reliably demonstrate compliance despite process changes. An owner or operator may request permission to substitute a prior performance test or compliance assessment by written application to the Administrator as specified in § 63.999(a)(1)(iv).

(2) Individual performance tests and flare compliance assessments may be waived upon written application to the Administrator, per § 63.999(a)(1)(iii), if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, the source is being operated under an extension or waiver of compliance, or the owner or operator has requested an extension or waiver of compliance and the Administrator is still considering that request.

(3) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notification is given to the owner or operator of the source.

(c) *Performance tests and flare compliance assessments schedule.* (1) Unless a waiver of performance testing or flare compliance assessment is obtained under this section or the conditions of a referencing subpart, the owner or operator shall perform such tests as specified in paragraphs (c)(1)(i) through (vii) of this section.

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial start-up date before the effective date of that standard; or

(ii) Within 180 days after initial start-up for a new source that has an initial start-up date after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in a referencing subpart for an existing source, or within 180 days after start-up of an existing source if the source begins operation after the effective date of the relevant emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance or a waiver of compliance for an existing source that obtains an extension of compliance under § 63.1112(a), or waiver of compliance under 40 CFR 61.11; or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f); or

(vii) When the promulgated emission standard in a referencing subpart is more stringent than the standard that was proposed, the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after start-up of the source, whichever is later. If a promulgated standard in a referencing subpart is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance initially with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after start-up of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(2) The Administrator may require an owner or operator to conduct performance tests and compliance assessments at the regulated source at any time when the action is authorized by section 114 of the Act.

(3) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a recovery device to replace an existing control device at a later date, or elects to use a different flare, nonflare control device

or recovery device to replace an existing flare, nonflare control device or final recovery device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 63.999(c)(7) before implementing the change. Upon implementing the change, a compliance demonstration or performance test shall be performed according to the provisions of paragraphs (c)(3)(i) through (v) of this section, as applicable, within 180 days. The compliance assessment report shall be submitted to the Administrator within 60 days of completing the determination, as provided in § 63.999(a)(1)(ii).

(i) For flares used to replace an existing control device, a flare compliance demonstration shall be performed using the methods specified in § 63.987(b);

(ii) For flares used to replace an existing final recovery device that is used on an applicable process vent, the owner or operator shall comply with the applicable provisions in a referencing subpart and in this subpart;

(iii) For incinerators, boilers, or process heaters used to replace an existing control device, a performance test shall be performed, using the methods specified in § 63.997;

(iv) For absorbers, condensers, or carbon adsorbers used to replace an existing control device on a process vent or a transfer rack, a performance test shall be performed, using the methods specified in § 63.997;

(v) For absorbers, condensers, or carbon adsorbers used to replace an existing final recovery device on a process vent, the owner or operator shall comply with the applicable provisions of a referencing subpart and this subpart;

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new regulated source and, at the request of the Administrator, the owner or operator of each existing regulated source, shall provide performance testing facilities as specified in paragraphs (d)(1) through (5) of this section.

(1) Sampling ports adequate for test methods applicable to such source. This includes, as applicable, the requirements specified in (d)(1)(i) and (ii) of this section.

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Performance test procedures.* Where §§ 63.985 through 63.995 require the owner or operator to conduct a performance test of a control device or a halogen reduction device, the owner or operator shall follow the requirements of paragraphs (e)(1)(i) through (v) of this section, as applicable.

(1) *General procedures.* (i) *Continuous unit operations.* For continuous unit operations, performance tests shall be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. During the performance test, an owner or operator may operate the control or halogen reduction device at maximum or minimum representative operating conditions for monitored control or halogen reduction device parameters, whichever results in lower emission reduction. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(ii) [Reserved]

(iii) *Combination of both continuous and batch unit operations.* For a combination of both continuous and batch unit operations, performance tests shall be conducted at maximum representative operating conditions. For the purpose of conducting a performance test on a combined vent stream, maximum representative operating conditions shall be when batch emission episodes are occurring that result

in the highest organic HAP emission rate (for the combined vent stream) that is achievable during the 6-month period that begins 3 months before and ends 3 months after the compliance assessment (e.g. TRE calculation, performance test) without causing any of the situations described in paragraphs (e)(1)(iii)(A) through (C) of this section.

(A) Causing damage to equipment;

(B) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(C) Necessitating that the owner or operator make product in excess of demand.

(iv) *Alternatives to performance test requirements.* Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this subpart, in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61, and 63 unless the Administrator specifies one of the provisions in paragraphs (e)(1)(iv)(A) through (E) of this section.

(A) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology; or

(B) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific regulated source is in compliance. The alternate method or data shall be validated using the applicable procedures of Method 301 of appendix A of 40 CFR part 63; or

(C) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(D) Waives the requirement for the performance test as specified in paragraph (b)(2) of this section because the owner or operator of a regulated source has demonstrated by other means to the Administrator's satisfaction that the regulated source is in compliance with the relevant standard; or

(E) Approves the use of an equivalent method.

(v) *Performance test runs.* Except as provided in paragraphs (e)(1)(v)(A) and (B) of this section, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for at least 1 hour and under the conditions specified in this section. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(A) For control devices used to control emissions from transfer racks (except low throughput transfer racks that are capable of continuous vapor processing but do not handle continuous emissions or multiple loading arms of a transfer rack that load simultaneously), each run shall represent at least one complete tank truck or tank car loading period, during which regulated materials are loaded, and samples shall be collected using integrated sampling or grab samples taken at least four times per hour at approximately equal intervals of time, such as 15-minute intervals.

(B) For intermittent vapor processing systems used for controlling transfer rack emissions (except low throughput transfer racks that do not handle continuous emissions or multiple loading arms of a transfer rack that load simultaneously), each run shall represent at least one complete control device cycle, and samples shall be collected using integrated sampling or grab samples taken at least four times per hour at approximately equal intervals of time, such as 15-minute intervals.

(2) *Specific procedures.* Where §§ 63.985 through 63.995 require the owner or operator to conduct a performance test of a control device, or a halogen reduction device, an owner or operator shall conduct that performance test using the procedures in paragraphs (e)(2)(i) through (iv) of this section, as applicable. The regulated material concentration and percent reduction may be

measured as either total organic regulated material or as TOC minus methane and ethane according to the procedures specified.

(i) *Selection of sampling sites.* Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites.

(A) For determination of compliance with a percent reduction requirement of total organic regulated material or TOC, sampling sites shall be located as specified in paragraphs (e)(2)(i)(A)(*1*) and (e)(2)(i)(A)(*2*) of this section, and at the outlet of the control device.

(*1*) With the exceptions noted below in paragraphs (e)(2)(i)(A)(*2*) and (*3*), the control device inlet sampling site shall be located at the exit from the unit operation before any control device.

(*2*) For process vents from continuous unit operations at affected sources in subcategories where the applicability criteria includes a TRE index value, the control device inlet sampling site shall be located after the final recovery device.

(*3*) If a vent stream is introduced with the combustion air or as a secondary fuel into a boiler or process heater with a design capacity less than 44 megawatts, selection of the location of the inlet sampling sites shall ensure the measurement of total organic regulated material or TOC (minus methane and ethane) concentrations, as applicable, in all vent streams and primary and secondary fuels introduced into the boiler or process heater.

(B) For determination of compliance with a parts per million by volume total regulated material or TOC limit in a referencing subpart, the sampling site shall be located at the outlet of the control device.

(ii) *Gas volumetric flow rate.* The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate.

(iii) *Total organic regulated material or TOC concentration.* To determine compliance with a parts per million by volume total organic regulated material or TOC limit, the owner or operator shall use Method 18 or 25A of 40 CFR part 60, appendix A, as applicable. The ASTM D6420–18 (incorporated by reference, see § 63.14) may be used in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in paragraphs (e)(2)(iii)(D)(*1*) through (*3*) of this section. Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A to this part may be used. The procedures specified in paragraphs (e)(2)(iii)(A), (B), (D), and (E) of this section shall be used to calculate parts per million by volume concentration. The calculated concentration shall be corrected to 3 percent oxygen using the procedures specified in paragraph (e)(2)(iii)(C) of this section if a combustion device is the control device and supplemental combustion air is used to combust the emissions.

(A) *Sampling time.* For continuous unit operations and for a combination of both continuous and batch unit operations, the minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(B) *Concentration calculation.* The concentration of either TOC (minus methane or ethane) or total organic regulated material shall be calculated according to paragraph (e)(2)(iii)(B) (*1*) or (*2*) of this section.

(*1*) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using Equation 2.

$$C_{TOC} = \sum_{i=1}^{x} \frac{\left(\sum_{j=1}^{n} C_{ji}\right)}{x} \qquad \text{[Eq. 2]}$$

Where:

C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

x = Number of samples in the sample run.

n = Number of components in the sample.

C_{ji} = Concentration of sample components j of sample I, dry basis, parts per million by volume.

(*2*) The total organic regulated material (C_{REG}) shall be computed according to Equation 2 in paragraph

(e)(2)(iii)(B)(*1*) of this section except that only the regulated species shall be summed.

(C) *Concentration correction calculation*. The concentration of TOC or total organic regulated material, as applicable, shall be corrected to 3 percent oxygen if a combustion device is the control device and supplemental combustion air is used to combust the emissions.

(*1*) The emission rate correction factor (or excess air), integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A, or the manual method in ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference, see §63.14), shall be used to determine the oxygen concentration. The sampling site shall be the same as that of the organic regulated material or organic compound samples, and the samples shall be taken during the same time that the organic regulated material or organic compound samples are taken.

(*2*) The concentration corrected to 3 percent oxygen (C_c) shall be computed using Equation 3.

$$C_c = C_m\left(\frac{17.9}{20.9 - \%O_{2d}}\right) \qquad \text{[Eq. 3]}$$

Where:

C_c = Concentration of TOC or organic regulated material corrected to 3 percent oxygen, dry basis, parts per million by volume.

C_m = Concentration of TOC (minus methane and ethane) or organic regulated material, dry basis, parts per million by volume.

$\%O_{2d}$ = Concentration of oxygen, dry basis, percentage by volume.

(D) To measure the total organic regulated material concentration at the outlet of a control device, use Method 18 of 40 CFR part 60, appendix A, or ASTM D6420–18 (incorporated by reference, see §63.14). If you have a combustion control device, you must first determine which regulated material compounds are present in the inlet gas stream using process knowledge or the screening procedure described in Method 18. In conducting the performance test, analyze samples collected at the outlet of the combustion control device as specified in Method 18 or ASTM D6420–18 for the regulated material compounds present at the inlet of the control device. The method ASTM D6420–18 may be used only under the conditions specified in paragraphs (e)(2)(iii)(D)(*1*) through (*3*) of this section.

(*1*) If the target compounds are all known and are all listed in Section 1.1 of ASTM D6420–18 as measurable.

(*2*) ASTM D6420–18 may not be used for methane and ethane.

(*3*) ASTM D6420–18 may not be used as a total VOC method.

(E) To measure the TOC concentration, use Method 18 of 40 CFR part 60, appendix A, or use Method 25A of 40 CFR part 60, appendix A, according to the procedures in paragraphs (e)(2)(iii)(E)(*1*) through (*4*) of this section.

(*1*) Calibrate the instrument on the predominant regulated material compound.

(*2*) The test results are acceptable if the response from the high level calibration gas is at least 20 times the standard deviation for the response from the zero calibration gas when the instrument is zeroed on its most sensitive scale.

(*3*) The span value of the analyzer must be less than 100 parts per million by volume.

(*4*) Report the results as carbon, calculated according to Equation 25A–1 of Method 25A of 40 CFR part 60, appendix A.

(iv) *Percent reduction calculation*. To determine compliance with a percent reduction requirement, the owner or operator shall use Method 18, 25, or 25A of 40 CFR part 60, appendix A, as applicable. The method ASTM D6420–18 (incorporated by reference, see §63.14) may be used in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in paragraphs (e)(2)(iii)(D)(*1*) through (*3*) of this section. Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A to this part may be used. The procedures specified in paragraphs (e)(2)(iv)(A) through (I) of this section shall be used to calculate percent reduction efficiency.

(A) *Sampling time*. The minimum sampling time for each run shall be 1 hour

in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(B) *Mass rate of TOC or total organic regulated material.* The mass rate of either TOC (minus methane and ethane) or total organic regulated material (E_I, E_o) shall be computed as applicable.

(*1*) Equations 4 and 5 shall be used.

$$E_i = K_2\left(\sum_{j=1}^{n} C_{ij}M_{ij}\right)Q_i \qquad \text{[Eq. 4]}$$

$$E_o = K_2\left(\sum_{j=1}^{n} C_{oj}M_{oj}\right)Q_o \qquad \text{[Eq. 5]}$$

Where:

E_I, E_o = Emission rate of TOC (minus methane and ethane) (E_{TOC}) or emission rate of total organic regulated material (E_{RM}) in the sample at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

K_2 = Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram per gram) (minute per hour), where standard temperature (gram-mole per standard cubic meter) is 20 °C.

n = Number of components in the sample.

C_{ij}, C_{oj} = Concentration on a dry basis of organic compound j in parts per million by volume of the gas stream at the inlet and outlet of the control device, respectively. If the TOC emission rate is being calculated, C_{ij} and C_{oj} include all organic compounds measured minus methane and ethane; if the total organic regulated material emissions rate is being calculated, only organic regulated material are included.

M_{ij}, M_{oj} = Molecular weight of organic compound j, gram per gram-mole, of the gas stream at the inlet and outlet of the control device, respectively.

Q_I, Q_o = Process vent flow rate, dry standard cubic meter per minute, at a temperature of 20 °C, at the inlet and outlet of the control device, respectively.

(*2*)–(*3*) [Reserved]

(C) *Percent reduction in TOC or total organic regulated material for continuous unit operations and a combination of both continuous and batch unit operations.* For continuous unit operations and for a combination of both continuous and batch unit operations, the percent reduction in TOC (minus methane and ethane) or total organic regulated material shall be calculated using Equation 6.

$$R = \frac{E_i - E_o}{E_i}(100) \qquad \text{[Eq. 6]}$$

Where:

R = Control efficiency of control device, percent.

E_I = Mass rate of TOC (minus methane and ethane) or total organic regulated material at the inlet to the control device as calculated under paragraph (e)(2)(iv)(B) of this section, kilograms TOC per hour or kilograms organic regulated material per hour.

E_o = Mass rate of TOC (minus methane and ethane) or total organic regulated material at the outlet of the control device, as calculated under paragraph (e)(2)(iv)(B) of this section, kilograms TOC per hour or kilograms total organic regulated material per hour.

(D) *Vent stream introduced with combustion air or as secondary fuel.* If the vent stream entering a boiler or process heater with a design capacity less than 44 megawatts is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total organic regulated material or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total organic regulated material in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total organic regulated material exiting the combustion device, respectively.

(E) *Transfer racks.* Method 25A of 40 CFR part 60, appendix A, may also be used for the purpose of determining compliance with the percent reduction requirement for transfer racks.

(*1*) If Method 25A of 40 CFR part 60, appendix A, is used to measure the concentration of organic compounds (C_{TOC}), the principal organic regulated material in the vent stream shall be used as the calibration gas.

(*2*) An emission testing interval shall consist of each 15-minute period during the performance test. For each interval, a reading from each measurement shall be recorded.

(*3*) The average organic compound concentration and the volume measurement shall correspond to the same emissions testing interval.

(*4*) The mass at the inlet and outlet of the control device during each testing interval shall be calculated using Equation 7.

$$M_j = FKV_sC_t \qquad \text{[Eq. 7]}$$

Where:

M_j = Mass of organic compounds emitted during testing interval j, kilograms.

$F = 10^{-6}$ = Conversion factor, (cubic meters regulated material per cubic meters air) * (parts per million by volume)$^{-1}$.

K = Density, kilograms per standard cubic meter organic regulated material.

= 659 kilograms per standard cubic meter organic regulated material. (Note: The density term cancels out when the percent reduction is calculated. Therefore, the density used has no effect. The density of hexane is given so that it can be used to maintain the units of M_j.)

V_s = Volume of air-vapor mixture exhausted at standard conditions, 20 °C and 760 millimeters mercury, standard cubic meters.

C_t = Total concentration of organic compounds (as measured) at the exhaust vent, parts per million by volume, dry basis.

(*5*) The organic compound mass emission rates at the inlet and outlet of the control device shall be calculated using Equations 8 and 9 as follows:

$$E_i = \frac{\sum_{j=1}^{n} M_{ij}}{T} \qquad \text{[Eq. 8]}$$

$$E_o = \frac{\sum_{j=1}^{n} M_{oj}}{T} \qquad \text{[Eq. 9]}$$

Where:

E_i, E_o = Mass flow rate of organic compounds at the inlet (i) and outlet (o) of the control device, kilograms per hour.

n = Number of testing intervals.

M_{ij}, M_{oj} = Mass of organic compounds at the inlet (i) or outlet (o) during testing interval j, kilograms.

T = Total time of all testing intervals, hours.

(F) To measure inlet and outlet concentrations of total organic regulated material, use Method 18 of 40 CFR part 60, appendix A, or ASTM D6420–18 (incorporated by reference, see §63.14), under the conditions specified in paragraphs (e)(2)(iii)(D)(*1*) through (*3*) of this section. In conducting the performance test, collect and analyze samples as specified in Method 18 or ASTM D6420–18. You must collect samples simultaneously at the inlet and outlet of the control device. If the performance test is for a combustion control device, you must first determine which regulated material compounds are present in the inlet gas stream (*i.e.*, uncontrolled emissions) using process knowledge or the screening procedure described in Method 18. Quantify the emissions for the regulated material compounds present in the inlet gas stream for both the inlet and outlet gas streams for the combustion device.

(G) To determine inlet and outlet concentrations of TOC, use Method 25 of 40 CFR part 60, appendix A. Measure the total gaseous non-methane organic (TGNMO) concentration of the inlet and outlet vent streams using the procedures of Method 25. Use the TGNMO concentration in Equations 4 and 5 of paragraph (e)(2)(iv)(B) of this section.

(H) Method 25A of 40 CFR part 60, appendix A, may be used instead of Method 25 to measure inlet and outlet concentrations of TOC if the condition in either paragraph (e)(2)(iv)(H)(*1*) or (*2*) of this section is met.

(*1*) The concentration at the inlet to the control system and the required level of control would result in exhaust TGNMO concentrations of 50 parts per million by volume or less.

(*2*) Because of the high efficiency of the control device, the anticipated TGNMO concentration of the control device exhaust is 50 parts per million by volume or less, regardless of the inlet concentration.

(I) If the uncontrolled or inlet gas stream to the control device contains formaldehyde, you must conduct emissions testing according to paragraphs (e)(2)(iv)(I)(*1*) through (*3*) of this section.

(*1*) Except as specified in paragraph (e)(2)(iv)(I)(*3*) of this section, if you elect to comply with a percent reduction requirement and formaldehyde is the principal regulated material compound (*i.e.*, greater than 50 percent of the regulated material compounds in the stream by volume), you must use

Method 316 or 320 of appendix A to this part, to measure formaldehyde at the inlet and outlet of the control device. Use the percent reduction in formaldehyde as a surrogate for the percent reduction in total regulated material emissions.

(*2*) Except as specified in paragraph (e)(2)(iv)(I)(*3*) of this section, if you elect to comply with an outlet total organic regulated material concentration or TOC concentration limit, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (by volume) formaldehyde, you must use Method 316 or 320 of appendix A to this part, to separately determine the formaldehyde concentration. Calculate the total organic regulated material concentration or TOC concentration by totaling the formaldehyde emissions measured using Method 316 or 320 and the other regulated material compound emissions measured using Method 18 or 25/25A of 40 CFR part 60, appendix A.

(*3*) You may elect to use ASTM D6348–12e1 (incorporated by reference, § 63.14) in lieu of Method 316 or 320 of appendix A to this part as specified in paragraph (e)(2)(iv)(I)(*1*) or (*2*) of this section. To comply with this paragraph, the test plan preparation and implementation in the Annexes to ASTM D6348–03 (incorporated by reference, see § 63.14) Sections Al through A8 are mandatory; the percent (%) R must be determined for each target analyte using Equation A5.5 of ASTM D6348–03 Annex A5 (Analyte Spiking Technique); and in order for the test data to be acceptable for a compound, the %R must be 70% ≥ R ≤ 130%. If the %R value does not meet this criterion for a target compound, then the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.*, the sampling and/or analytical procedure should be adjusted before a retest). The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound by using the following equation:

Reported Results = (Measured Concentration in the Stack × 100)/%R.

(3) An owner or operator using a halogen scrubber or other halogen reduction device to control process vent and transfer rack halogenated vent streams in compliance with a referencing subpart, who is required to conduct a performance test to determine compliance with a control efficiency or emission limit for hydrogen halides and halogens, shall follow the procedures specified in paragraphs (e)(3) (i) through (iv) of this section.

(i) For an owner or operator determining compliance with the percent reduction of total hydrogen halides and halogens, sampling sites shall be located at the inlet and outlet of the scrubber or other halogen reduction device used to reduce halogen emissions. For an owner or operator determining compliance with a kilogram per hour outlet emission limit for total hydrogen halides and halogens, the sampling site shall be located at the outlet of the scrubber or other halogen reduction device and prior to any releases to the atmosphere.

(ii) Except as provided in paragraph (e)(1)(iv) of this section, Method 26 or Method 26A of 40 CFR part 60, appendix A, shall be used to determine the concentration, in milligrams per dry standard cubic meter, of total hydrogen halides and halogens that may be present in the vent stream. The mass emissions of each hydrogen halide and halogen compound shall be calculated from the measured concentrations and the gas stream flow rate.

(iii) To determine compliance with the percent removal efficiency, the mass emissions for any hydrogen halides and halogens present at the inlet of the halogen reduction device shall be summed together. The mass emissions of the compounds present at the outlet of the scrubber or other halogen reduction device shall be summed together. Percent reduction shall be determined by comparison of the summed inlet and outlet measurements.

(iv) To demonstrate compliance with a kilogram per hour outlet emission limit, the test results must show that the mass emission rate of total hydrogen halides and halogens measured at the outlet of the scrubber or other halogen reduction device is below the

kilogram per hour outlet emission limit specified in a referencing subpart.

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§ 63.998 Recordkeeping requirements.

(a) *Compliance assessment, monitoring, and compliance records*—(1) *Conditions of flare compliance assessment, monitoring, and compliance records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of flare compliance assessments performed pursuant to § 63.987(b).

(i) *Flare compliance assessment records.* When using a flare to comply with this subpart, record the information specified in paragraphs (a)(1)(i)(A) through (C) of this section for each flare compliance assessment performed pursuant to § 63.987(b). As specified in § 63.999(a)(2)(iii)(A), the owner or operator shall include this information in the flare compliance assessment report.

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(B) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance assessment; and

(C) All periods during the flare compliance assessment when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent.

(ii) *Monitoring records.* Each owner or operator shall keep up to date and readily accessible hourly records of whether the monitor is continuously operating and whether the flare flame or at least one pilot flame is continuously present. For transfer racks, hourly records are required only while the transfer rack vent stream is being vented.

(iii) *Compliance records.* (A) Each owner or operator shall keep records of the times and duration of all periods during which the flare flame or all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in § 63.999(c)(3).

(B) Each owner or operator shall keep records of the times and durations of all periods during which the monitor is not operating.

(2) *Nonflare control device performance test records.* (i) *Availability of performance test records.* 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 performed pursuant to § 63.988(b), § 63.990(b), § 63.994(b), or § 63.995(b).

(ii) *Nonflare control device and halogen reduction device performance test records.*

(A) *General requirements.* Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the data specified in paragraphs (a)(2)(ii)(B) through (C) of this section, as applicable, measured during each performance test performed pursuant to § 63.988(b), § 63.990(b), § 63.994(b), or § 63.995(b), and also include that data in the Notification of Compliance Status required under § 63.999(b). The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, or the outlet concentration of TOC or regulated material is determined.

(B) *Nonflare combustion device.* Where an owner or operator subject to the provisions of this paragraph seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device the information specified in (a)(2)(ii)(B)(*1*) through (*6*) of this section shall be recorded.

(*1*) For thermal incinerators, record the fire box temperature averaged over the full period of the performance test.

(*2*) For catalytic incinerators, record the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test.

(*3*) For a boiler or process heater with a design heat input capacity less than 44 megawatts and a vent stream that is not introduced with or as the primary fuel, record the fire box temperature averaged over the full period of the performance test.

(*4*) For an incinerator, record the percent reduction of organic regulated material, if applicable, or TOC achieved by the incinerator determined as specified in § 63.997(e)(2)(iv), as applicable, or the concentration of organic regulated material (parts per million by volume, by compound) determined as specified in § 63.997(e)(2)(iii) at the outlet of the incinerator.

(*5*) For a boiler or process heater, record a description of the location at which the vent stream is introduced into the boiler or process heater.

(*6*) For a boiler or process heater with a design heat input capacity of less than 44 megawatts and where the process vent stream is introduced with combustion air or used as a secondary fuel and is not mixed with the primary fuel, record the percent reduction of organic regulated material or TOC, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 63.997(e)(2)(iii) at the outlet of the combustion device.

(C) *Other nonflare control devices.* Where an owner or operator seeks to use an absorber, condenser, or carbon adsorber as a control device, the information specified in paragraphs (a)(2)(ii)(C)(*1*) through (*5*) of this section shall be recorded, as applicable.

(*1*) Where an absorber is used as the control device, the exit specific gravity and average exit temperature of the absorbing liquid averaged over the same time period as the performance test (both measured while the vent stream is normally routed and constituted); or

(*2*) Where a condenser is used as the control device, the average exit (product side) temperature averaged over the same time period as the performance test while the vent stream is routed and constituted normally; or

(*3*) Where a carbon adsorber is used as the control device, the total regeneration stream mass flow during each carbon-bed regeneration cycle during the period of the performance test, and temperature of the carbon-bed after each regeneration during the period of the performance test (and within 15 minutes of completion of any cooling cycle or cycles; or

(*4*) As an alternative to paragraph (a)(2)(ii)(C)(*1*), (*2*), or (*3*) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber averaged over the same time period as the performance test while the vent stream is normally routed and constituted.

(*5*) For an absorber, condenser, or carbon adsorber used as a control device, the percent reduction of regulated material achieved by the control device or concentration of regulated material (parts per million by volume, by compound) at the outlet of the control device.

(D) *Halogen reduction devices.* When using a scrubber following a combustion device to control a halogenated vent stream, record the information specified in paragraphs (a)(2)(ii)(D)(*1*) through (*3*) of this section.

(*1*) The percent reduction or scrubber outlet mass emission rate of total hydrogen halides and halogens as specified in § 63.997(e)(3).

(*2*) The pH of the scrubber effluent averaged over the time period of the performance test; and

(*3*) The scrubber liquid-to-gas ratio averaged over the time period of the performance test.

(3) *Recovery device monitoring records during TRE index value determination.* For process vents that require control of emissions under a referencing subpart, owners or operators using a recovery device to maintain a TRE above a level specified in the referencing subpart shall maintain the continuous records specified in paragraph (a)(3)(i) through (v) of this section, as applicable, and submit reports as specified in § 63.999(a)(2)(iii)(C).

(i) Where an absorber is the final recovery device in the recovery system and the saturated scrubbing fluid and specific gravity of the scrubbing fluid is greater than or equal to 0.02 specific gravity units, the exit specific gravity (or alternative parameter that is a measure of the degree of absorbing liquid saturation if approved by the Administrator) and average exit temperature of the absorbing liquid averaged over the same time period as the TRE index value determination (both measured while the vent stream is normally routed and constituted); or

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature averaged over the same time period as the TRE index value determination while the vent stream is routed and constituted normally; or

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total regeneration stream mass flow during each carbon-bed regeneration cycle during the period of the TRE index value determination, and temperature of the carbon-bed after each regeneration during the period of the TRE index value determination (and within 15 minutes of completion of any cooling cycle or cycles); or

(iv) As an alternative to paragraph (a)(3)(i), (ii), or (iii) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber averaged over the same time period as the TRE index value determination while the vent stream is normally routed and constituted.

(v) All measurements and calculations performed to determine the TRE index value of the vent stream as specified in a referencing subpart.

(4) *Halogen concentration records.* Record the halogen concentration in the vent stream determined according to the procedures specified in a referencing subpart. Submit this record in the Notification of Compliance Status, as specified in §63.999(b)(4). If the owner or operator designates the vent stream as halogenated, then this shall be recorded and reported in the Notification of Compliance Status report.

(b) *Continuous records and monitoring system data handling*—(1) *Continuous records.* Where this subpart requires a continuous record, the owner or operator shall maintain a record as specified in paragraphs (b)(1)(i) through (iv) of this section, as applicable:

(i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or

(ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.

(iii) Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.

(iv) A record as required by an alternative approved under a referencing subpart.

(2) *Excluded data.* Monitoring data recorded during periods identified in paragraphs (b)(2)(i) through (iii) of this section shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart.

(i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(iii) Startups, shutdowns, and malfunctions, if the owner or operator operates the source during such periods in accordance with §63.1111(a) and maintains the records specified in paragraph (d)(3) of this section.

(3) *Records of daily averages.* In addition to the records specified in paragraph (a), owners or operators shall keep records as specified in paragraphs (b)(3)(i) and (ii) of this section and submit reports as specified in §63.999(c), unless an alternative recordkeeping system has been requested and approved under a referencing subpart.

(i) Except as specified in paragraph (b)(3)(ii) of this section, daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of

paragraph (b)(2) of this section for each operating day and retained for 5 years.

(A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.

(B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period.

(ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values as allowed in paragraph (b)(1)(iii) of this section.

(4) [Reserved]

(5) *Alternative recordkeeping.* For any parameter with respect to any item of equipment associated with a process vent or transfer rack (except low throughput transfer loading racks), the owner or operator may implement the recordkeeping requirements in paragraphs (b)(5)(i) or (ii) of this section as alternatives to the recordkeeping provisions listed in paragraphs (b)(1) through (3) of this section. The owner or operator shall retain each record required by paragraphs (b)(5)(i) or (ii) of this section as provided in a referencing subpart.

(i) The owner or operator may retain only the daily average value, and is not required to retain more frequently monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of paragraphs (b)(5)(i)(A) through (F) of this section are met. The owner or operator shall notify the Administrator in the Notification of Compliance Status as specified in §63.999(b)(5) or, if the Notification of Compliance Status has already been submitted, in the Periodic Report immediately preceding implementation of the requirements of this paragraph, as specified in §63.999(c)(6)(iv).

(A) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns or malfunctions (e.g., a temperature reading of −200 °C on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(B) The monitoring system generates a running average of the monitoring values, updated at least hourly throughout each operating day, that have been obtained during that operating day, and the capability to observe this average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in paragraphs (b)(5)(i)(B)(*1*) through (*3*) of this section. All instances in an operating day constitute a single occurrence.

(*1*) The running average is above the maximum or below the minimum established limits;

(*2*) The running average is based on at least six one-hour average values; and

(*3*) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.

(C) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(D) The monitoring system will alert the owner or operator by an alarm, if the running average parameter value

calculated under paragraph (b)(5)(i)(B) of this section reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(E) The owner or operator shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of paragraph (b)(5)(i) of this section, at the times specified in paragraphs (b)(5)(i)(E)(*1*) through (*3*) of this section. The owner or operator shall document that the required verifications occurred.

(*1*) Upon initial installation.

(*2*) Annually after initial installation.

(*3*) After any change to the programming or equipment constituting the monitoring system that might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(F) The owner or operator shall retain the records identified in paragraphs (b)(5)(i)(F)(*1*) through (*4*) of this section.

(*1*) Identification of each parameter, for each item of equipment, for which the owner or operator has elected to comply with the requirements of paragraph (b)(5)(i) of this section.

(*2*) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of paragraph (b)(5)(i)(A) through (E) of this section. The description shall identify the location and format (e.g., on-line storage; log entries) for each required record. If the description changes, the owner or operator shall retain both the current and the most recent superseded description. The description, and the most recent superseded description, shall be retained as provided in the subpart that references this subpart, except as provided in paragraph (b)(5)(i)(F)(*1*) of this section.

(*3*) A description, and the date, of any change to the monitoring system that would reasonably be expected to affect its ability to comply with the requirements of paragraph (b)(5)(i) of this section.

(*4*) Owners and operators subject to paragraph (b)(5)(i)(F)(*2*) of this section shall retain the current description of the monitoring system as long as the description is current, but not less than 5 years from the date of its creation. The current description shall be retained on-site at all times or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain the most recent superseded description at least until 5 years from the date of its creation. The superseded description shall be retained on-site (or accessible from a central location by computer that provides access within 2 hours after a request) at least 6 months after being superseded. Thereafter, the superseded description may be stored offsite.

(ii) If an owner or operator has elected to implement the requirements of paragraph (b)(5)(i) of this section, and a period of 6 consecutive months has passed without an excursion as defined in paragraph (b)(6)(i) of this section, the owner or operator is no longer required to record the daily average value for that parameter for that unit of equipment, for any operating day when the daily average value is less than the maximum, or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring were required and/or approved by the Administrator.

(A) If the owner or operator elects not to retain the daily average values, the owner or operator shall notify the Administrator in the next Periodic Report, as specified in §63.999(c)(6)(i). The notification shall identify the parameter and unit of equipment.

(B) If there is an excursion as defined in paragraph (b)(6)(i) of this section on any operating day after the owner or operator has ceased recording daily averages as provided in paragraph (b)(5)(ii) of this section, the owner or operator shall immediately resume retaining the daily average value for each operating day, and shall notify the Administrator in the next Periodic Report, as specified in §63.999(c). The

owner or operator shall continue to retain each daily average value until another period of 6 consecutive months has passed without an excursion as defined in paragraph (b)(6)(i) of this section.

(C) The owner or operator shall retain the records specified in paragraphs (b)(5)(i)(A) through (F) of this section for the duration specified in a referencing subpart. For any week, if compliance with paragraphs (b)(5)(i)(A) through (D) of this section does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.

(6)(i) For the purposes of this section, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in paragraphs (b)(6)(i)(A) and (B) of this section.

(A) The daily average value during any startup, shutdown, or malfunction shall not be considered an excursion if the owner or operator operates the source during such periods in accordance with § 63.1111(a) and maintains the records specified in paragraph (d)(3) of this section.

(B) An excused excursion, as described in paragraph (b)(6)(ii), does not count toward the number of excursions for the purposes of this subpart.

(ii) One excused excursion for each control device or recovery device for each semiannual period is allowed. If a source has developed a startup, shutdown and malfunction plan, and a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with § 63.1111(a)) or during periods of nonoperation of the process unit or portion thereof (resulting in cessation of the emissions to which monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count as the excused excursion for determining compliance.

(c) *Nonflare control and recovery device regulated source monitoring records*—(1) *Monitoring system records.* For process vents and high throughput transfer racks, the owner or operator subject to this subpart shall keep the records specified in this paragraph, as well as records specified elsewhere in this subpart.

(i) For a CPMS used to comply with this part, a record of the procedure used for calibrating the CPMS.

(ii) For a CPMS used to comply with this subpart, records of the information specified in paragraphs (c)(ii)(A) through (H) of this section, as indicated in a referencing subpart.

(A) The date and time of completion of calibration and preventive maintenance of the CPMS.

(B) The ''as found'' and ''as left'' CPMS readings, whenever an adjustment is made that affects the CPMS reading and a ''no adjustment'' statement otherwise.

(C) The start time and duration or start and stop times of any periods when the CPMS is inoperative.

(D) Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with this subpart during which excess emissions (as defined in a referencing subpart) occur.

(E) For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a ''checklist,'' or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(F) Records documenting each start-up, shutdown, and malfunction event.

(G) Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.

(H) Records of the total duration of operating time.

(2) *Combustion control and halogen reduction device monitoring records.* (i)

Each owner or operator using a combustion control or halogen reduction device to comply with this subpart shall keep the following records up-to-date and readily accessible, as applicable. Continuous records of the equipment operating parameters specified to be monitored under §§ 63.988(c) (incinerator, boiler, and process heater monitoring), 63.994(c) (halogen reduction device monitoring), and 63.995(c) (other combustion systems used as control device monitoring) or approved by the Administrator in accordance with a referencing subpart.

(ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in paragraph (b)(3)(i) of this section. For catalytic incinerators, record the daily average of the temperature upstream of the catalyst bed and the daily average of the temperature differential across the bed. For halogen scrubbers record the daily average pH and the liquid-to-gas ratio.

(iii) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to § 63.996(c)(6).

(3) *Monitoring records for recovery devices, absorbers, condensers, carbon adsorbers or other noncombustion systems used as control devices.* (i) Each owner or operator using a recovery device to achieve and maintain a TRE index value greater than the control applicability level specified in the referencing subpart but less than 4.0 or using an absorber, condenser, carbon adsorber or other non-combustion system as a control device shall keep readily accessible, continuous records of the equipment operating parameters specified to be monitored under §§ 63.990(c) (absorber, condenser, and carbon adsorber monitoring), 63.993(c) (recovery device monitoring), or 63.995(c) (other noncombustion systems used as a control device monitoring) or as approved by the Administrator in accordance with a referencing subpart. For transfer racks, continuous records are required while the transfer vent stream is being vented.

(ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in paragraph (b)(3)(i) of this section. If carbon adsorber regeneration stream flow and carbon bed regeneration temperature are monitored, the records specified in paragraphs (c)(3)(ii)(A) and (B) of this section shall be kept instead of the daily averages.

(A) Records of total regeneration stream mass or volumetric flow for each carbon-bed regeneration cycle.

(B) Records of the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle.

(iii) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to § 63.996(c)(6).

(d) *Other records*—(1) *Closed vent system records.* For closed vent systems the owner or operator shall record the information specified in paragraphs (d)(1)(i) through (iv) of this section, as applicable.

(i) For closed vent systems collecting regulated material from a regulated source, the owner or operator shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by § 63.983(b)(2)(ii) or (iii) of this section.

(ii) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either paragraph (d)(1)(ii)(A) or (B) of this section, as applicable.

(A) Hourly records of whether the flow indicator specified under § 63.983(a)(3)(i) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when

the vent stream is diverted from the control device or the flow indicator is not operating.

(B) Where a seal mechanism is used to comply with § 63.983(a)(3)(ii), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

(iii) For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in § 63.983(d)(2), the information specified in paragraphs (d)(1)(iii)(A) through (F) of this section shall be recorded and kept for 5 years.

(A) The instrument and the equipment identification number and the operator name, initials, or identification number.

(B) The date the leak was detected and the date of the first attempt to repair the leak.

(C) The date of successful repair of the leak.

(D) The maximum instrument reading measured by the procedures in § 63.983(c) after the leak is successfully repaired or determined to be nonrepairable.

(E) ''Repair delayed'' and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(F) Copies of the Periodic Reports as specified in § 63.999(c), if records are not maintained on a computerized database capable of generating summary reports from the records.

(iv) For each instrumental or visual inspection conducted in accordance with § 63.983(b)(1) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(2) *Storage vessel and transfer rack records.* An owner or operator shall keep readily accessible records of the information specified in paragraphs (d)(2)(i) and (ii) of this section, as applicable.

(i) A record of the measured values of the parameters monitored in accordance with § 63.985(c) or § 63.987(c).

(ii) A record of the planned routine maintenance performed on the control system during which the control system does not meet the applicable specifications of § 63.983(a), § 63.985(a), or § 63.987(a), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in paragraphs (d)(2)(ii)(A) through (C) of this section. This information shall be submitted in the Periodic Reports as specified in § 63.999(c)(4).

(A) The first time of day and date the requirements of § 63.983(a), § 63.985(a), or § 63.987(a), as applicable, were not met at the beginning of the planned routine maintenance, and

(B) The first time of day and date the requirements of § 63.983(a), § 63.985(a), or § 63.987(a), as applicable, were met at the conclusion of the planned routine maintenance.

(C) A description of the type of maintenance performed.

(3) *Regulated source and control equipment start-up, shutdown and malfunction records.* (i) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment used to comply with this part during which excess emissions (as defined in a referencing subpart) occur.

(ii) For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing control device emissions to a backup control device (e.g., the incinerator for a halogenated

stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a ''checklist,'' or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(4) *Equipment leak records.* The owner or operator shall maintain records of the information specified in paragraphs (d)(4)(i) and (ii) of this section for closed vent systems and control devices if specified by the equipment leak provisions in a referencing subpart. The records specified in paragraph (d)(4)(i) of this section shall be retained for the life of the equipment. The records specified in paragraph (d)(4)(ii) of this section shall be retained for 5 years.

(i) The design specifications and performance demonstrations specified in paragraphs (d)(4)(i)(A) through (C) of this section.

(A) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.

(B) The dates and descriptions of any changes in the design specifications.

(C) A description of the parameter or parameters monitored, as required in a referencing subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(ii) Records of operation of closed vent systems and control devices, as specified in paragraphs (d)(4)(ii)(A) through (C) of this section.

(A) Dates and durations when the closed vent systems and control devices required are not operated as designed as indicated by the monitored parameters.

(B) Dates and durations during which the monitoring system or monitoring device is inoperative.

(C) Dates and durations of start-ups and shutdowns of control devices required in this subpart.

(5) *Records of monitored parameters outside of range.* The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999; 71 FR 20458, Apr. 20, 2006]

§ 63.999 Notifications and other reports.

(a) *Performance test and flare compliance assessment notifications and reports*—(1) *General requirements.* General requirements for performance test and flare compliance assessment notifications and reports are specified in paragraphs (a)(1)(i) through (iii) of this section.

(i) The owner or operator shall notify the Administrator of the intention to conduct a performance test or flare compliance assessment at least 30 days before such a compliance demonstration is scheduled to allow the Administrator the opportunity to have an observer present. If after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original demonstration date. The owner or operator shall provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or arrange a rescheduled date with the Administrator by mutual agreement.

(ii) Unless specified differently in this subpart or a referencing subpart, performance test and flare compliance assessment reports, not submitted as part of a Notification of Compliance Status report, shall be submitted to the Administrator within 60 days of completing the test or determination.

(iii) Any application for a waiver of an initial performance test or flare compliance assessment, as allowed by §63.997(b)(2), shall be submitted no later than 90 days before the performance test or compliance assessment is required. The application for a waiver shall include information justifying the owner or operator's request for a

waiver, such as the technical or economic infeasibility, or the impracticality, of the source performing the test.

(iv) Any application to substitute a prior performance test or compliance assessment for an initial performance test or compliance assessment, as allowed by §63.997(b)(1), shall be submitted no later than 90 days before the performance test or compliance test is required. The application for substitution shall include information demonstrating that the prior performance test or compliance assessment was conducted using the same methods specified in §63.997(e) or §63.987(b)(3), as applicable. The application shall also include information demonstrating that no process changes have been made since the test, or that the results of the performance test or compliance assessment reliably demonstrate compliance despite process changes.

(2) *Performance test and flare compliance assessment report submittal and content requirements.* Performance test and flare compliance assessment reports shall be submitted as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For performance tests or flare compliance assessments, the Notification of Compliance Status or performance test and flare compliance assessment report shall include one complete test report as specified in paragraph (a)(2)(ii) of this section for each test method used for a particular kind of emission point and other applicable information specified in (a)(2)(iii) of this section. For additional tests performed for the same kind of emission point using the same method, the results and any other information required in applicable sections of this subpart shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) The performance test or flare compliance assessment report shall also include the information specified in (a)(2)(iii)(A) through (C) of this section, as applicable.

(A) For flare compliance assessments, the owner or operator shall submit the records specified in §63.998(a)(1)(i).

(B) For nonflare control device and halogen reduction device performance tests as required under §63.988(b), §63.990(b), §63.994(b), or §63.995(b), also submit the records specified in §63.998(a)(2)(ii), as applicable.

(C) For recovery devices also submit the records specified in §63.998(a)(3), as applicable.

(b) *Notification of Compliance Status—*(1) *Routing storage vessel or transfer rack emissions to a process or fuel gas system.* An owner or operator who elects to comply with §63.982 by routing emissions from a storage vessel or transfer rack to a process or to a fuel gas system, as specified in §63.984, shall submit as part of the Notification of Compliance Status the information specified in paragraphs (b)(1)(i) and (ii), or (iii) of this section, as applicable.

(i) If storage vessels emissions are routed to a process, the owner or operator shall submit the information specified in §63.984(b)(2) and (3).

(ii) As specified in §63.984(c), if storage vessels emissions are routed to a fuel gas system, the owner or operator shall submit a statement that the emission stream is connected to the fuel gas system and whether the conveyance system is subject to the requirements of §63.983.

(iii) As specified in §63.984(c), report that the transfer rack emission stream is being routed to a fuel gas system or process, when complying with a referencing subpart.

(2) *Routing storage vessel or low throughput transfer rack emissions to a nonflare control device.* An owner or operator who elects to comply with §63.982 by routing emissions from a storage vessel or low throughput transfer rack to a nonflare control device, as specified in §63.985, shall submit, with the Notification of Compliance Status

required by a referencing subpart, the applicable information specified in paragraphs (b)(2)(i) through (vi) of this section. Owners and operators who elect to comply with §63.985(b)(1)(i) by submitting a design evaluation shall submit the information specified in paragraphs (b)(2)(i) through (iv) of this section. Owners and operators who elect to comply with §63.985(b)(1)(ii) by submitting performance test results from a control device for a storage vessel or low throughput transfer rack shall submit the information specified in paragraphs (b)(2)(i), (ii), (iv), and (v) of this section. Owners and operators who elect to comply with §63.985(b)(1)(ii) by submitting performance test results from a shared control device shall submit the information specified in paragraph (b)(2)(vi) of this section.

(i) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed (e.g., when the liquid level in the storage vessel is being raised). If continuous records are specified, indicate whether the provisions of §63.999(c)(6) apply.

(ii) The operating range for each monitoring parameter identified in the monitoring plan required by §63.985(c)(1). The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(iii) The documentation specified in §63.985(b)(1)(i), if the owner or operator elects to prepare a design evaluation.

(iv) The provisions of paragraph (c)(6) of this section do not apply to any low throughput transfer rack for which the owner or operator has elected to comply with §63.985 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under §63.985(c)(1), to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of paragraph (c)(6) of this section apply.

(v) A summary of the results of the performance test described in §63.985(b)(1)(ii). If such a performance test is conducted, submit the results of the performance test, including the information specified in §63.999(a)(2)(ii) and (iii).

(vi) Identification of the storage vessel or transfer rack and control device for which the performance test will be submitted, and identification of the emission point(s), if any, that share the control device with the storage vessel or transfer rack and for which the performance test will be conducted.

(3) *Operating range for monitored parameters.* The owner or operator shall submit as part of the Notification of Compliance Status, the operating range for each monitoring parameter identified for each control, recovery, or halogen reduction device as determined pursuant to §63.996(c)(6). The specified operating range shall represent the conditions for which the control, recovery, or halogen reduction device is being properly operated and maintained. This report shall include the information in paragraphs (b)(3)(i) through (iii) of this section, as applicable, unless the range and the operating day have been established in the operating permit.

(i) The specific range of the monitored parameter(s) for each emission point;

(ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range indicates proper operation of the control, recovery, or halogen reduction device, as specified in paragraphs (b)(3)(ii)(A), (B), or (C) of this section, as applicable.

(A) If a performance test or TRE index value determination is required by a referencing subpart for a control, recovery or halogen reduction device, the range shall be based on the parameter values measured during the TRE index value determination or performance test and may be supplemented by engineering assessments and/or manufacturer's recommendations. TRE index value determinations and performance testing are not required to be conducted over the entire range of permitted parameter values.

(B) If a performance test or TRE index value determination is not required by a referencing subpart for a control, recovery, or halogen reduction device, the range may be based solely on engineering assessments and/or manufacturer's recommendations.

(C) The range may be based on ranges or limits previously established under a referencing subpart.

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(4) *Halogen reduction device.* The owner or operator shall submit as part of the Notification of Compliance Status the information recorded pursuant to § 63.998(a)(4).

(5) *Alternative recordkeeping.* The owner or operator shall notify the Administrator in the Notification of Compliance Status if the alternative recordkeeping requirements of § 63.998(b)(5) are being implemented. If the Notification of Compliance Status has already been submitted, the notification must be in the periodic report submitted immediately preceding implementation of the alternative, as specified in paragraph (c)(6)(iv) of this section.

(c) *Periodic reports.* (1) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart, including reports of periods when monitored parameters are outside their established ranges.

(2) For closed vent systems subject to the requirements of § 63.983, the owner or operator shall submit as part of the periodic report the information specified in paragraphs (c)(2)(i) through (iii) of this section, as applicable.

(i) The information recorded in § 63.998(d)(1)(iii)(B) through (E);

(ii) Reports of the times of all periods recorded under § 63.998(d)(1)(ii)(A) when the vent stream is diverted from the control device through a bypass line; and

(iii) Reports of all times recorded under § 63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

(3) For flares subject to this subpart, report all periods when all pilot flames were absent or the flare flame was absent as recorded in § 63.998(a)(1)(i)(C).

(4) For storage vessels, the owner or operator shall include in each periodic report required the information specified in paragraphs (c)(4)(i) through (iii) of this section.

(i) For the 6-month period covered by the periodic report, the information recorded in § 63.998(d)(2)(ii)(A) through (C).

(ii) For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of § 63.983(a), § 63.985(a), or § 63.987(a) due to planned routine maintenance.

(iii) A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.

(5) If a control device other than a flare is used to control emissions from storage vessels or low throughput transfer racks, the periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with paragraph (b)(3) of this section. The description shall include the information specified in paragraphs (c)(5)(i) and (ii) of this section.

(i) Identification of the control device for which the measured parameters were outside of the established ranges, and

(ii) The cause for the measured parameters to be outside of the established ranges.

(6) For process vents and transfer racks (except low throughput transfer racks), periodic reports shall include the information specified in paragraphs (c)(6)(i) through (iv) of this section.

(i) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in §63.998(b)(3)(i) for any days when the daily average value is outside the bounds as defined in §63.998(c)(2)(iii) or (c)(3)(iii), or the data availability requirements defined in paragraphs (c)(6)(i)(A) through (D) of this section are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. An excursion means any of the cases listed in paragraphs (c)(6)(i)(A) through (C) of this section. If the owner or operator elects not to retain the daily average values pursuant to §63.998(b)(5)(ii)(A), the owner or operator shall report this in the Periodic Report.

(A) When the daily average value of one or more monitored parameters is outside the permitted range.

(B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

(C) When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

(D) Monitoring data are insufficient to constitute a valid hour of data as used in paragraphs (c)(6)(i)(B) and (C) of this section, if measured values are unavailable for any of the 15-minute periods within the hour.

(ii) Report all carbon-bed regeneration cycles during which the parameters recorded under §63.998(a)(2)(ii)(C) were outside the ranges established in the Notification of Compliance Status or in the operating permit.

(iii) The provisions of paragraph (c)(6)(i) and (ii) of this section do not apply to any low throughput transfer rack for which the owner or operator has elected to comply with §63.985 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under §63.985(c)(1), to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of paragraphs (c)(6)(i) and (c)(6)(ii) of this section apply.

(iv) If the owner or operator has chosen to use the alternative recordkeeping requirements of §63.998(b)(5), and has not notified the Administrator in the Notification of Compliance Status that the alternative recordkeeping provisions are being implemented as specified in paragraph (b)(5) of this section, the owner or operator shall notify the Administrator in the Periodic Report submitted immediately preceding implementation of the alternative. The notifications specified in §63.998(b)(5)(ii) shall be included in the next Periodic Report following the identified event.

(7) As specified in §63.997(c)(3), if an owner or operator at a facility not required to obtain a title V permit elects at a later date to replace an existing control or recovery device with a different control or recovery device, then the Administrator shall be notified by the owner or operator before implementing the change. This notification may be included in the facility's periodic reporting.

(d) *Requests for approval of monitoring alternatives*—(1) *Alternatives to the continuous operating parameter monitoring and recordkeeping provisions.* Requests for approval to use alternatives to continuous operating parameter monitoring and recordkeeping provisions, as provided for in §63.996(d)(1), shall be submitted as specified in a referencing subpart, and the referencing subpart will govern the review and approval of such requests. The information specified in paragraphs (d)(1)(i) and (ii) of this section shall be included.

(i) A description of the proposed alternative system; and

(ii) Information justifying the owner or operator's request for an alternative method, such as the technical or economic infeasibility, or the impracticality, of the regulated source using the required method.

(2) *Monitoring a different parameter than those listed.* Requests for approval to monitor a different parameter than those established in §63.996(c)(6) of this

section or to set unique monitoring parameters, as provided for in §63.996(d)(2), shall be submitted as specified as specified in a referencing subpart, and the referencing subpart will govern the review and approval of such requests. The information specified in paragraphs (d)(2)(i) through (iii) of this section shall be included in the request.

(i) A description of the parameter(s) to be monitored to ensure the control technology or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s);

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device, the schedule for this demonstration, and a statement that the owner or operator will establish a range for the monitored parameter(s) as part of the Notification of Compliance Status if required under a referencing subpart, unless this information has already been submitted; and

(iii) The frequency and content of monitoring, recording, and reporting, if monitoring and recording is not continuous, or if reports of daily average values when the monitored parameter value is outside the established range will not be included in periodic reports under paragraph (c) of this section. The rationale for the proposed monitoring, recording, and reporting system shall be included.

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999]

Subpart TT—National Emission Standards for Equipment Leaks—Control Level 1

SOURCE: 64 FR 34886, June 29, 1999, unless otherwise noted.

§63.1000 Applicability.

(a) The provisions of this subpart apply to the control of air emissions from equipment leaks for which another subpart references the use of this subpart for such air emission control. These air emission standards for equipment leaks are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the referencing subpart. The provisions of 40 CFR part 63 subpart A (General Provisions) do not apply to this subpart except as noted in the referencing subpart.

(b) *Implementation and enforcement.* This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(1) 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 paragraphs (b)(1)(i) through (v) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(i) Approval of alternatives to the nonopacity emissions standards in §§63.1003 through 63.1015, under §63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(ii) [Reserved]

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

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

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

(c) *Exemptions.* Paragraphs (c)(1) through (c)(3) delineate equipment that is excluded from the requirements of this subpart.

(1) *Equipment in vacuum service.* Equipment that is in vacuum service is excluded from the requirements of this subpart.

(2) *Equipment in service less than 300 hours per calendar year*. Equipment that is in regulated material service less than 300 hours per calendar year is excluded from the requirements of §§ 63.1006 through 63.1015 if it is identified as required in § 63.1003(b)(5).

(3) *Lines and equipment not containing process fluids*. Except as provided in a referencing subpart, lines and equipment not containing process fluids are not subject to the provisions of this subpart. Utilities, and other nonprocess lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility.

[64 FR 34886, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999; 67 FR 46278, July 12, 2002]

§ 63.1001 Definitions.

All terms used in this part shall have the meaning given them in the Act and in this section.

Closed-loop system means an enclosed system that returns process fluid to the process and is not vented directly to the atmosphere.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers must be covered or closed when not being filled or emptied.

Closed-vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Connector means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, ceramic, or ceramic-lined (e.g., porcelain, glass, or glass-lined) as described in § 63.1008(d)(2).

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this part. Such equipment or devices include, but are not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. Primary condensers on steam strippers or fuel gas systems are not considered control devices.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in regulated material service; and any control devices or systems used to comply with this subpart.

First attempt at repair, for the purposes of this subpart, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in § 63.1004(b) and, as applicable, in § 63.1004(c), as appropriate, to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as a fuel gas in combustion equipment, such as furnaces and gas turbines, either singly or in combination.

In gas or vapor service means that a piece of equipment in regulated material service contains a gas or vapor at operating conditions.

In heavy liquid service means that a piece of equipment in regulated material is not in gas or vapor service or in light liquid service.

In light liquid service means that a piece of equipment in regulated-material service contains a liquid that meets the following conditions:

(1) The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 °C,

(2) The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 °C is equal to or greater than 20 percent by weight of the total process stream, and

(3) The fluid is a liquid at operating conditions.

(NOTE TO DEFINITION OF ''IN LIGHT LIQUID SERVICE'': Vapor pressures may be determined by standard reference texts or ASTM D–2879.)

In liquid service means that a piece of equipment in regulated material service is not in gas or vapor service.

In organic hazardous air pollutant or in organic HAP service means that a piece of equipment either contains or contracts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of § 63.180(d) of subpart H. The provisions of § 63.180(d) of subpart H also specify how to determine that a piece of equipment is not in organic HAP service.

In regulated material service means, for the purposes of this subpart, equipment which meets the definition of ''in VOC service'', ''in VHAP service'', ''in organic hazardous air pollutant service,'' or ''in other chemicals or groups of chemicals service'' as defined in the referencing subpart.

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

Initial startup means for new sources, the first time the source begins production. For additions or changes not defined as a new source by this subpart, initial startup means the first time additional or changed equipment is put into operation. Initial startup does not include operation solely for testing of equipment. Initial startup does not include subsequent startup of process units following malfunction or process unit shutdowns. Except for equipment leaks, initial startup also does not include subsequent startups (of process units following changes in product for flexible operation units or following recharging of equipment in batch unit operations).

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (*e.g.*, composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 1.27 centimeters (0.5 inches) and smaller, and connectors nominally 1.91 centimeters (0.75 inches) and smaller in diameter are considered instrumentation systems for the purposes of this subpart. Valves greater than nominally 1.27 centimeters (0.5 inches) and connectors greater than nominally 1.91 centimeters (0.75 inches) associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually.

Liquids dripping means any visible leakage from the seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquids dripping include puddling or new stains that are indicative of an existing evaporated drip.

Nonrepairable means that it is technically infeasible to repair a piece of equipment from which a leak has been detected without a process unit or affected facility shutdown.

Open-ended valve or line means any valve, except relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.

Organic monitoring device means a unit of equipment used to indicate the concentration level of organic compounds based on a detection principle

such as infra-red, photo ionization, or thermal conductivity.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the relief device. This release can be one release or a series of releases over a short time period due to a malfunction in the process.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Process unit means the equipment specified in the definitions of process unit in the applicable referencing subpart. If the referencing subpart does not define process unit, then for the purposes of this part, process unit means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit, or part of a process unit during which it is technically feasible to clear process material from a process unit, or part of a process unit, consistent with safety constraints and during which repairs can be affected. The following are not considered process unit shutdowns:

(1) An unscheduled work practice or operations procedure that stops production from a process unit, or part of a process unit, for less than 24 hours.

(2) An unscheduled work practice or operations procedure that would stop production from a process unit, or part of a process unit, for a shorter period of time than would be required to clear the process unit, or part of the process unit, of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.

(3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Referencing subpart means the subpart which refers an owner or operator to this subpart.

Regulated material, for purposes of this subpart, refers to gases from volatile organic liquids (VOL), volatile organic compounds (VOC), hazardous air pollutants (HAP), or other chemicals or groups of chemicals that are regulated by the referencing subpart.

Regulated source for the purposes of this subpart, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a referencing subpart.

Relief device or valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Repaired, for the purposes of this subpart means the following:

(1) Equipment is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of this subpart, and

(2) Equipment, unless otherwise specified in applicable provisions of this subpart, is monitored as specified in §63.1004(b) and, as applicable in §§63.1004(c) and 63.1015 of this part as appropriate, to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the emissions are conveyed to any enclosed portion of a process unit where the emissions are predominantly recycled and/or consumed in the same manner as a material that fulfills the same function in the process and/or transformed by chemical reaction into materials that are not regulated materials and/or incorporated into a product; and /or recovered.

Sampling connection system means an assembly of equipment within a process unit or affected facility used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Screwed (threaded) connector means a threaded pipe fitting where the threads are cut on the pipe wall and the fitting requires only two pieces to make the connection (*i.e.*, the pipe and the fitting).

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Set pressure means the pressure at which a properly operating pressure relief device begins to open to relieve atypical process system operating pressure.

Start-up means the setting into operation of a piece of equipment or a control device that is subject to this subpart.

[64 FR 34886, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999]

§ 63.1002 Compliance assessment.

(a) *General procedures for compliance assessment.* Compliance with this subpart will be determined by review of the records required by § 63.1017 and the reports required by § 63.1018, by review of performance test results, and by inspections.

(b) *Alternative means of emission limitation.* The provisions of paragraph (b) of this section do not apply to the performance standards of § 63.1006(e)(4) for valves designated as having no detectable emissions, § 63.1011(b) for pressure relief devices, or § 63.1012(f) for compressors operating under the alternative compressor standard.

(1) An owner or operator may request a determination of alternative means of emission limitation to the requirements of §§ 63.1005 through 63.1015 as provided in paragraphs (b)(2) through (b)(6) of this section. If the Administrator makes a determination that an alternative means of emission limitation is a permissible alternative, the owner or operator shall comply with the alternative.

(2) Permission to use an alternative means of emission limitation shall be governed by the following procedures in paragraphs (b)(3) through (b)(6) of this section.

(3) Where the standard is an equipment, design, or operational requirement the criteria specified in paragraphs (b)(3)(i) and (b)(3)(ii) shall be met.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying emission performance test data for an alternative means of emission limitation.

(ii) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(4) Where the standard is a work practice the criteria specified in paragraphs (b)(4)(i) through (b)(4)(iv) shall be met.

(i) Each owner or operator applying for permission shall be responsible for collecting and verifying test data for an alternative means of emission limitation.

(ii) For each kind of equipment for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.

(iii) The Administrator will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices.

(iv) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same or greater emission reduction as the required work practices of this subpart.

(5) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation.

(6) If, in the judgement of the Administrator, an alternative means of emission limitation will be approved, the Administrator will publish a notice of the determination in the FEDERAL REGISTER.

(7)(i) Manufacturers of equipment used to control equipment leaks of a regulated material may apply to the Administrator for permission for an alternative means of emission limitation that achieves a reduction in emissions of the regulated material achieved by

the equipment, design, and operational requirements of this subpart.

(ii) The Administrator will grant permission according to the provisions of paragraphs (b)(3), (b)(4), (b)(5) and (b)(6) of this section.

[64 FR 34886, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999]

§ 63.1003 Equipment identification.

(a) *General equipment identification.* Equipment subject to this subpart shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods.

(b) *Additional equipment identification.* In addition to the general identification required by paragraph (a) of this section, equipment subject to any of the provisions in §§ 63.1006 to 63.1015 shall be specifically identified as required in paragraphs (b)(1) through (b)(5) of this section, as applicable.

(1) *Connectors.* Except for inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of § 63.1008(d)(2) and instrumentation systems identified pursuant to paragraph (b)(4) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

(2) *Routed to a process or fuel gas system or equipped with a closed vent system and control device.* Identify the equipment that the owner or operator elects to route to a process or fuel gas system or equip with a closed vent system and control device, under the provisions of § 63.1007(e)(3) (pumps in light liquid service), § 63.1009(e)(3) (agitators in gas and vapor service and in light liquid service), § 63.1011(d) (pressure relief devices in gas and vapor service), § 63.1012(e) (compressors), or § 63.1016 (alternative means of emission limitation for enclosed vented process units) of this subpart.

(3) *Pressure relief devices.* Identify the pressure relief devices equipped with rupture disks, under the provisions of § 63.1011(e) of this subpart.

(4) *Instrumentation systems.* Identify instrumentation systems subject to the provisions of § 63.1010 of this subpart. Individual components in an instrumentation system need not be identified.

(5) *Equipment in service less than 300 hours per calendar year.* The identity, either by list, location (area or group), or other method, of equipment in regulated material service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of this subpart shall be recorded.

(c) *Special equipment designations: Equipment that is unsafe or difficult-to-monitor*—(1) *Designation and criteria for unsafe-to-monitor.* Valves meeting the provisions of § 63.1006(e)(1), pumps meeting the provisions of § 63.1007(e)(5), connectors meeting the provisions of § 63.1008(d)(1), and agitators meeting the provisions of § 63.1009(e)(7) may be designated unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of this subpart. Examples of an unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.

(2) *Designation and criteria for difficult-to-monitor.* Valves meeting the provisions of § 63.1006(e)(2) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(i) of this section apply. Agitators meeting the provisions of § 63.1009(f)(5) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(ii) apply.

(i) *Valves.* (A) The owner or operator of the valve determines that the equipment cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.

(B) The process unit or affected facility within which the valve is located is an existing source, or the owner or operator designates less than 3 percent of

the total number of valves in a new source as difficult-to-monitor.

(ii) *Agitators.* The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.

(3) [Reserved]

(4) *Identification of unsafe or difficult-to-monitor equipment.* The owner or operator shall record the identity of equipment designated as unsafe-to-monitor according to the provisions of paragraph (c)(1) of this section and the planned schedule for monitoring this equipment. The owner or operator shall record the identity of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section, the planned schedule for monitoring this equipment, and an explanation why the equipment is difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector.

(5) *Written plan requirements.* (i) The owner or operator of equipment designated as unsafe-to-monitor except connectors meeting the provisions of §63.1008(d)(1) according to the provisions of paragraph (c)(1) of this section shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in §63.1005 if a leak is detected.

(ii) The owner or operator of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section shall have a written plan that requires monitoring of the equipment at least once per calendar year, and repair of the equipment according to the procedures in §63.1005 if a leak is detected.

(d) *Special equipment designations: Unsafe-to-repair*—(1) *Designation and criteria.* Connectors subject to the provisions of §63.1005(e) may be considered unsafe-to-repair if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of this subpart, and if the connector will be repaired before the end of the next process unit or affected facility shutdown as specified in §63.1005(e) of this subpart.

(2) *Identification of equipment.* The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded.

(e) *Special equipment designations: Equipment operating with no detectable emissions*—(1) *Designation and criteria.* Equipment may be designated as having no detectable emissions if it has no external actuating mechanism in contact with the process fluid and is operated with emissions less than 500 parts per million above background as determined by the method specified in §63.1004(b) and (c).

(2) *Identification of equipment.* The identity of equipment designated as no detectable emissions shall be recorded.

(3) *Identification of compressors operating under no detectable emissions.* Identify the compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of §63.1012(f).

[64 FR 34886, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999]

§63.1004 Instrument and sensory monitoring for leaks.

(a) *Monitoring for leaks.* The owner or operator of a regulated source subject to this subpart shall monitor all regulated equipment as specified in paragraph (a)(1) of this section for instrument monitoring and paragraph (a)(2) of this section for sensory monitoring.

(1) *Instrument monitoring for leaks.* (i) Valves in gas and vapor service and in light liquid service shall be monitored pursuant to §63.1006(b).

(ii) Pumps in light liquid service shall be monitored pursuant to §63.1007(b).

(iii) Connectors in gas and vapor service and in light liquid service shall be monitored pursuant to §63.1008(b).

(iv) Agitators in gas and vapor service and in light liquid service shall be monitored pursuant to §63.1009(b).

(v) Pressure relief devices in gas and vapor service shall be monitored pursuant to § 63.1011(c).

(vi) Compressors designated to operate with an instrument reading less than 500 parts per million as described in § 63.1003(e), shall be monitored pursuant to § 63.1012(f).

(2) *Sensory monitoring for leaks.* (i) Pumps in light liquid service shall be observed pursuant to § 63.1007(b)(3) and (e)(1)(v).

(ii) [Reserved]

(iii) Agitators in gas and vapor service and in light liquid service shall be observed pursuant to § 63.1009(b)(3) or (e)(1)(iv).

(iv) [Reserved]

(b) *Instrument monitoring methods.* Instrument monitoring, as required under this subpart, shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

(1) *Monitoring method.* Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A.

(2) *Detection instrument performance criteria.* (i) Except as provided for in paragraph (b)(2)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the representative composition of the process fluid, and not for each individual HAP, VOC or other regulated material individual chemical compound in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not regulated materials, the representative stream response factor shall be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

(ii) If there is no instrument commercially available that will meet the performance criteria specified in paragraph (b)(2)(i) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in paragraph (b)(2)(i) of this section.

(3) *Detection instrument calibration procedure.* The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(4) *Detection instrument calibration gas.* Calibration gases shall be zero air (less than 10 parts per million of hydrocarbon in air); and a mixture of methane in air at a concentration of approximately, but less than, 10,000 parts per million; or a mixture of n-hexane in air at a concentration of approximately, but less than, 10,000 parts per million. A calibration gas other than methane in air or n-hexane in air may be used if the instrument does not respond to methane or n-hexane or if the instrument does not meet the performance criteria specified in paragraph (b)(2)(i) of this section. In such cases, the calibration gas may be a mixture of one or more compounds to be measured in air.

(5) *Monitoring performance.* Monitoring shall be performed when the equipment is in regulated material service or is in use with any other detectable material.

(6) *Monitoring data.* Monitoring data obtained prior to the regulated source becoming subject to the referencing subpart that do not meet the criteria specified in paragraphs (b)(1) through (b)(5) of this section may still be used to initially qualify for less frequent monitoring under the provisions in § 63.1006(a)(2), (b)(3) or (b)(4) for valves provided the departures from the criteria specified or from the specified monitoring frequency of § 63.1006(b)(3) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every six weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2(a) of Method 21 of appendix A of 40 CFR part 60 instead of paragraph (b)(2) of this section, or monitoring at a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in the referencing subpart. Failure to use a calibrated instrument is not considered a minor departure.

(c) *Instrument monitoring using background adjustments.* The owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects not to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (b)(1) through (b)(5) of this section. In such case, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with § 63.1011(b) (pressure relief devices in gas and vapor service) or § 63.1012(f) (compressors). If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (c)(1) through (c)(4) of this section.

(1) The requirements of paragraphs (b)(1) through (b)(5) of this section shall apply.

(2) The background level shall be determined, using the procedures in Method 21 of 40 CFR part 60, appendix A.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible (as described in Method 21 of 40 CFR part 60, appendix A).

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared to the applicable leak definitions for the monitored equipment to determine whether there is a leak or to determine compliance with § 63.1011(b) (pressure relief devices in gas and vapor service) or § 63.1012(f) (compressors).

(d) *Sensory monitoring methods.* Sensory monitoring, as required under this subpart, shall consist of detection of a potential leak to the atmosphere by visual, audible, olfactory, or any other detection method.

(e) *Leaking equipment identification and records.* (1) When each leak is detected pursuant to the monitoring specified in paragraph (a) of this section, a weatherproof and readily visible identification, marked with the equipment identification, shall be attached to the leaking equipment.

(2) When each leak is detected, the information specified in § 63.1005(e) shall be recorded and kept pursuant to the referencing subpart.

[64 FR 34886, June 29, 1999, as amended at 64 FR 63706, Nov. 22, 1999]

§ 63.1005 Leak repair.

(a) *Leak repair schedule.* The owner or operator shall repair each leak detected no later than 15 calendar days after it is detected, except as provided in paragraphs (c) and (d) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

(b) *Leak identification removal*—(1) *Valves in gas/vapor and light liquid service.* The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in § 63.1006(b), and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in § 63.1008(b) and no leak has been detected during that monitoring.

(2) *Other equipment.* The identification that has been placed, pursuant to § 63.1004(e), on equipment determined to have a leak, except for a valve in gas/vapor or light liquid service, may be removed after it is repaired.

(c) *Delay of repair.* Delay of repair can be used as specified in any of paragraphs (c)(1) through (c)(5) of this section. The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

(1) Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a process unit or affected facility shutdown within 15 days after a leak is detected. Repair of this equipment shall occur as soon as practical, but not later than by the end of the next process unit or affected facility shutdown, except as provided in paragraph (c)(5) of this section.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

(3) Delay of repair for valves, connectors, and agitators is also allowed if the criteria specified in paragraphs (c)(3)(i) and (c)(3)(ii) are met.

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are effected, the purged material is collected and destroyed, or recovered in a control or recovery device, or routed to a fuel gas system or process complying with §63.1015 or §63.1002(b) of this part.

(4) Delay of repair for pumps is allowed if the criteria specified in paragraphs (c)(4)(i) and (c)(4)(ii) are met.

(i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined will provide better performance or one of the specifications of paragraphs (c)(4)(i)(A) through (c)(4)(i)(C) of this section are met.

(A) A dual mechanical seal system that meets the requirements of §63.1007(e)(1) will be installed,

(B) A pump that meets the requirements of §63.1007(e)(2) will be installed; or

(C) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of §63.1007(e)(3) will be installed.

(ii) Repair is to be completed as soon as practical, but not later than 6 months after the leak was detected.

(5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

(d) *Unsafe-to-repair connectors.* Any connector that is designated, as described in §63.1003(d), as an unsafe-to-repair connector is exempt from the requirements of §63.1008(c), and paragraph (a) of this section.

(e) *Leak repair records.* For each leak detected, the information specified in paragraphs (e)(1) through (e)(5) of this section shall be recorded and maintained pursuant to the referencing subpart.

(1) The date of first attempt to repair the leak.

(2) The date of successful repair of the leak.

(3) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A at the time the leak is successfully repaired or determined to be nonrepairable.

(4) ''Repair delayed'' and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in paragraphs (e)(4)(i) and (e)(4)(ii) of this section.

(i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on site before depletion and the reason for depletion.

(5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

[64 FR 34886, June 29, 1999, as amended at 64 FR 63706, Nov. 22, 1999]

§ 63.1006 Valves in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* (1) The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(2) The use of monitoring data generated before the regulated source became subject to the referencing subpart to initially qualify for less frequent monitoring is governed by the provisions of § 63.1004(b)(6).

(b) *Leak detection.* Unless otherwise specified in § 63.1002(b), or § 63.1016, or in paragraph (e) of this section, or the referencing subpart, the owner or operator shall monitor all valves at the intervals specified in paragraphs (b)(3) through (b)(6) of this section and shall comply with all other provisions of this section.

(1) *Monitoring method.* The valves shall be monitored to detect leaks by the method specified in § 63.1004(b) and (c).

(2) *Instrument reading that defines a leak.* The instrument reading that defines a leak is 10,000 parts per million or greater.

(3) *Monitoring period.* (i) Each valve shall be monitored monthly to detect leaks, except as provided in paragraphs (b)(3)(ii), (e)(1), (e)(2), and (e)(4) of this section. An owner or operator may otherwise elect to comply with one of the alternative standards in paragraphs (b)(5) or (b)(6) of this section as specified in paragraph (b)(4) of this section.

(ii)(A) Any valve for which a leak is not detected for 2 successive months may be monitored the same month (first, second, or third month) of every quarter, beginning with the next quarter, until a leak is detected. The first quarterly monitoring shall occur less than 3 months following the last monthly monitoring.

(B) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(C) For purposes of paragraph (b) of this section, quarter means a 3-month period with the first quarter concluding on the last day of the last full month during the 180 days following initial startup.

(4) *Allowance of alternative standards.* An owner or operator may elect to comply with one of the alternatives specified in either paragraph (b)(5) or (b)(6) of this section if the percentage of valves leaking is equal to or less than 2.0 percent as determined by the procedure in paragraph (c) of this section. An owner or operator must notify the Administrator before implementing one of the alternatives specified in either paragraph (b)(5) or (b)(6) of this section.

(5) *Allowable percentage alternative.* An owner or operator choosing to comply with the allowable percentage alternative shall have an allowable percentage of leakers no greater than 2.0 percent for each affected facility or process unit and shall comply with paragraphs (b)(5)(i) and (b)(5)(ii) of this section.

(i) A compliance demonstration for each affected facility or process unit or affected facility complying with this alternative shall be conducted initially upon designation, annually, and at other times requested by the Administrator. For each such demonstration, all valves in gas and vapor and light liquid service within the affected facility or process unit shall be monitored within 1 week by the methods specified in § 63.1004(b). If an instrument reading exceeds the equipment leak level specified in the referencing subpart, a leak is detected. The leak percentage shall be calculated as specified in paragraph (c) of this section.

(ii) If an owner or operator decides no longer to comply with this alternative, the owner or operator must notify the Administrator in writing that the work practice standard described in paragraph (b)(3) of this section will be followed.

(6) *Skip period alternatives.* An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(6)(i) or (b)(6)(ii) of this section. An owner or operator electing to use one of these skip period alternatives shall comply

with paragraphs (b)(6)(iii) and (b)(6)(iv) of this section. Before using either skip period alternative, the owner or operator shall initially comply with the requirements of paragraph (b)(3) of this section. Monitoring data generated before the regulated source became subject to the referencing subpart that meets the criteria of either §63.1004(b)(1) through (b)(5), or §63.1004(b)(6), may be used to initially qualify for skip period alternatives.

(i) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0 as determined by the procedure in paragraph (c) of this section, an owner or operator may begin to monitor for leaks once every 6 months.

(ii) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0 as determined by the procedure in paragraph (c) of this section, an owner or operator may begin to monitor for leaks once every year.

(iii) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with paragraph (b)(3) of this section, but can elect to comply with paragraph (b)(6) of this section if future percent of valves leaking is again equal to or less than 2.0.

(iv) The owner or operator shall keep a record of the monitoring schedule and the percent of valves found leaking during each monitoring period.

(c) *Percent leaking valves calculation—calculation basis and procedures.* (1) The owner or operator shall decide no later than the compliance date of this subpart, or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the subgrouping criteria specified in paragraph (b)(5)(i) of this section.

(2) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(d) *Leak repair.* (1) If a leak is determined pursuant to paragraph (b), (e)(1), or (e)(2) of this section, then the leak shall be repaired using the procedures in §63.1005, as applicable.

(2) After a leak determined pursuant to paragraph (b) or (e)(2) of this section has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repair.

(i) The monitoring shall be conducted as specified in §63.1004(b) and (c), as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by paragraph (b) of this section may be used to satisfy the requirements of this paragraph, if the timing of the monitoring period coincides with the time specified in this paragraph. Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph.

(iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (d)(2) of this section, the owner or operator shall follow the provisions of paragraphs (d)(2)(iii)(A) and (d)(2)(iii)(B) of this section, to determine whether that valve must be counted as a leaking valve for purposes of paragraph (c) of this section.

(A) If the owner or operator elected to use periodic monitoring required by paragraph (b) of this section to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve.

(B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by paragraph (b) of this section, to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(e) *Special provisions for valves*—(1) *Unsafe-to-monitor valves.* Any valve that is designated, as described in §63.1003(c)(1), as an unsafe-to-monitor valve, is exempt from the monitoring

requirements of paragraph (b) of this section, and the owner or operator shall monitor the valve according to the written plan specified in § 63.1003(c)(5).

(2) *Difficult-to-monitor*. Any valve that is designated, as described in § 63.1003(c)(2), as a difficult-to-monitor valve, is exempt from the requirements of paragraph (b) of this section, and the owner or operator shall monitor the valve according to the written plan specified in § 63.1003(c)(5).

(3) *Less than 250 valves*. Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the monthly monitoring specified in paragraph (b)(3)(i) of this section. Instead, the owner or operator shall monitor each valve in regulated material service for leaks once each quarter, or comply with paragraphs (b)(3)(ii)(A), (b)(3)(ii)(B), or (b)(3)(ii)(C) of this section except as provided in paragraphs (e)(1) and (e)(2) of this section.

(4) *No detectable emissions*. (i) Any valve that is designated, as described in § 63.1003(e), as having no detectable emissions is exempt from the requirements of paragraphs (b) through (c) of this section if the owner or operator meets the criteria specified in paragraphs (e)(4)(i)(A) and (e)(4)(i)(B) of this section.

(A) Tests the valve for operation with emissions less than 500 parts per million above background as determined by the method specified in § 63.1004(c) initially upon designation, annually, and at other times requested by the Administrator, and

(B) Records the dates of each compliance demonstration, the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test.

(ii) A valve may not be designated or operated for no detectable emissions, as described in § 63.1003(e), if the valve has an instrument reading greater than 500 parts per million above background.

§ 63.1007 Pumps in light liquid service standards.

(a) *Compliance schedule*. The owner or operator shall comply with this section no later than the compliance date specified in the referencing subpart.

(b) *Leak detection*. Unless otherwise specified in § 63.1002(b), or § 63.1016 of this subpart or paragraph (e) of this section, the owner or operator shall monitor each pump monthly to detect leaks and shall comply with all other provisions of this section.

(1) *Monitoring method*. The pumps shall be monitored to detect leaks by the method specified in § 63.1004(b) of this subpart.

(2) *Instrument reading that defines a leak*. The instrument reading that defines a leak is 10,000 parts per million.

(3) *Visual inspection*. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal, a leak is detected. Unless the owner or operator demonstrates (e.g., through instrument monitoring) that the indications of liquids dripping are due to a condition other than process fluid drips, the leak shall be repaired according to the procedures of paragraph (b)(4) of this section.

(4) *Visual inspection: Leak repair*. Where a leak is identified by visual indications of liquids dripping, repair shall mean that the visual indications of liquids dripping have been eliminated.

(c) *Percent leaking pumps calculation*. (1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis.

(2) The number of pumps at a process unit shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or within 1 month after startup of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(3) Percent leaking pumps shall be determined by the following equation:

$$\%P_L = \left(\left(P_L - P_S\right)/\left(P_T - P_S\right)\right) \times 100 \qquad \text{[Eq. 1]}$$

Where:

$\%P_L$ = Percent leaking pumps

P_L = Number of pumps found leaking as determined through monthly monitoring as required in paragraph (b) of this section. Do not include results from inspection of unsafe-to-monitor pumps pursuant to paragraph (e)(6) of this section.

P_T = Total pumps in regulated material service, including those meeting the criteria in paragraphs (e)(1), (e)(2), (e)(3), and (e)(6) of this section.

P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period.

(d) *Leak repair.* If a leak is detected pursuant to paragraph (b) of this section, then the leak shall be repaired using the procedures in § 63.1005, as applicable, unless otherwise specified in paragraph (b)(4) of this section for leaks identified by visual indications of liquids dripping.

(e) *Special provisions for pumps*—(1) *Dual mechanical seal pumps.* Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (b) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(viii) of this section are met.

(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. The owner or operator shall keep records at the plant of the design criteria and an explanation of the design criteria, and any changes to these criteria and the reasons for the changes. This record must be available for review by an inspector.

(ii) Each dual mechanical seal system shall meet the requirements specified in paragraphs (e)(1)(ii)(A) through (e)(1)(ii)(C) of this section.

(A) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of subpart SS of this part; or

(C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(iii) The barrier fluid is not in light liquid service.

(iv) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(v) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (e)(1)(v)(A) or (e)(1)(v)(B) of this section prior to the next required inspection.

(A) The owner or operator shall monitor the pump as specified in § 63.1004(b) to determine if there is a leak of regulated material in the barrier fluid; if an instrument reading of 10,000 parts per million or greater is measured, a leak is detected and shall be repaired using the procedures in § 63.1005; or

(B) The owner or operator shall eliminate the visual indications of liquids dripping.

(vi) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (e)(1)(i) of this section, or if based on the criteria established in paragraph (e)(1)(i) of this section the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(vii) Each sensor as described in paragraph (e)(1)(iv) of this section is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

(viii) When a leak is detected pursuant to paragraph (e)(1)(vi) of this section, it shall be repaired as specified in § 63.1005.

(2) *No external shaft.* Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of paragraph (b) of this section.

(3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any pump that is routed to a process or a fuel gas system or equipped with a closed vent system that captures and transports leakage from the pump to a control device meeting the requirements of § 63.1015 is exempt from requirements of paragraph (b) of this section.

(4) *Unmanned plant site.* Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(3), and (e)(1)(v) of this section, and the daily requirements of paragraph (e)(1)(vii) of this section, provided that each pump is visually inspected as often as practical and at least monthly.

(5) *Unsafe-to-monitor pumps.* Any pump that is designated, as described in § 63.1003(c)(1), as an unsafe-to-monitor pump is exempt from the requirements of paragraph (b) of this section and the requirements of § 63.1005 and the owner or operator shall monitor the pump according to the written plan specified in § 63.1003(c)(5).

§ 63.1008 Connectors in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection.* Unless otherwise specified in § 63.1002(b), or § 63.1016 of this subpart, or the referencing subpart, the owner or operator shall monitor all connectors within 5 days by the method specified in § 63.1004(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. No monitoring is required if the evidence of a potential leak is eliminated within 5 days. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

(c) *Leak repair.* If a leak is detected pursuant to paragraph (b) of this section, then the leak shall be repaired using the procedures in § 63.1005, as applicable.

(d) *Special provisions for connectors*—(1) *Unsafe-to-monitor connectors.* Any connector that is designated, as described in § 63.1003(c)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor according to the written plan specified in § 63.1003(c)(5).

(2) *Inaccessible, ceramic, or ceramic-lined connectors.* (i) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraph (b) of this section, the leak repair requirements of paragraph (c) of this section, and the recordkeeping and reporting requirements of §§ 63.1017 and 63.1018. An inaccessible connector is a connector that meets any of the provisions specified in paragraphs (d)(2)(i)(A) through (d)(2)(i)(F) of this section, as applicable.

(A) Buried;

(B) Insulated in a manner that prevents access to the connector by a monitor probe;

(C) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; or

(D) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

(E) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold;

(F) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift

basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(ii) If any inaccessible ceramic or ceramic-lined connector is noted to have a leak by visual, audible, olfactory, or other means, the leak to the atmosphere shall be eliminated as soon as practical.

§ 63.1009 Agitators in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection*—(1) *Monitoring method.* Each agitator seal shall be monitored monthly to detect leaks by the methods specified in § 63.1004(b), or § 63.1016, except as provided in § 63.1002(b) or in paragraph (e) of this section.

(2) *Instrument reading that defines a leak.* If an instrument reading equivalent of 10,000 parts per million or greater is measured, a leak is detected.

(3) *Visual inspection.* Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the agitator seal, the owner or operator shall follow the procedures specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section prior to the next required inspection.

(i) The owner or operator shall monitor the agitator seal as specified in § 63.1004(b) to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it shall be repaired using the procedures in paragraph (d) of this section;

(ii) The owner or operator shall eliminate the indications of liquids dripping from the agitator seal.

(c) [Reserved]

(d) *Leak repair.* If a leak is detected, then the leak shall be repaired using the procedures in § 63.1005, as applicable.

(e) *Special provisions for agitators*—(1) *Dual mechanical seal.* Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (b) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(vi) of this section are met.

(i) Each dual mechanical seal system shall meet the applicable requirement specified in paragraphs (e)(1)(i)(A), (e)(1)(i)(B), or (e)(1)(i)(C) of this section.

(A) Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that meets the requirements of § 63.1015; or

(C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(ii) The barrier fluid is not in light liquid service.

(iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(iv) Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (e)(1)(iv)(A) or (e)(1)(iv)(B) of this section prior to the next required inspection.

(A) The owner or operator shall monitor the agitator seal shall as specified in § 63.1004(b) to determine the presence of regulated material in the barrier fluid. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in § 63.1005; or

(B) The owner or operator shall eliminate the visual indications of liquids dripping.

(v) Each sensor as described in paragraph (e)(1)(iii) of this section is observed daily or is equipped with an alarm unless the agitator seal is located within the boundary of an unmanned plant site.

(vi) The owner or operator of each dual mechanical seal system shall meet the requirements specified in paragraphs (e)(1)(vi)(A) through (e)(1)(vi)(D).

(A) The owner or operator shall determine, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.

(B) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

(C) If indications of liquids dripping from the agitator seal exceed the criteria established in paragraphs (e)(1)(vi)(A) and (e)(1)(vi)(B) of this section, or if, based on the criteria established in paragraphs (e)(1)(vi)(A) and (e)(1)(vi)(B) of this section, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(D) When a leak is detected, it shall be repaired using the procedures in §63.1005.

(2) *No external shaft.* Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from the requirements of paragraph (b) of this section.

(3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any agitator that is routed to a process or fuel gas system or equipped with a closed vent system that captures and transports leakage from the agitator to a control device meeting the requirements of §63.1015 is exempt from the monitoring requirements of paragraph (b) of this section.

(4) *Unmanned plant site.* Any agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(3) and (e)(1)(iv) of this section, and the daily requirements of paragraph (e)(1)(v) of this section, provided that each agitator is visually inspected as often as practical and at least monthly.

(5) *Difficult-to-monitor agitator seals.* Any agitator seal that is designated, as described in §63.1003(c)(2), as a difficult-to-monitor agitator seal is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor the agitator seal according to the written plan specified in §63.1003(c)(5).

(6) *Equipment obstructions.* Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of paragraph (b) of this section.

(7) *Unsafe-to-monitor agitator seals.* Any agitator seal that is designated, as described in §63.1003(c)(1), as an unsafe-to-monitor agitator seal is exempt from the requirements of paragraph (b) of this section and the owner or operator of the agitator seal monitors the agitator seal according to the written plan specified in §63.1003(c)(5).

§63.1010 Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection*—(1) *Monitoring method.* Unless otherwise specified in §63.1002(b), or §63.1016, the owner or operator shall comply with paragraphs (b)(1) and (b)(2) of this section. Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems shall be monitored within 5 calendar days by the method specified in §63.1004(b) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in paragraph (c) of this section, it is not necessary to monitor the system for leaks by the method specified in §63.1004(b).

(2) *Instrument reading that defines a leak.* For systems monitored by the method specified in §63.1004(b), if an instrument reading of 10,000 parts per million or greater is measured, a leak

is detected. If a leak is detected, it shall be identified pursuant to § 63.1004(e) and repaired pursuant to § 63.1005.

(c) *Leak repair.* If a leak is determined pursuant to this section, then the leak shall be repaired using the procedures in § 63.1005, as applicable. For equipment identified in paragraph (b) of this section that is not monitored by the method specified in § 63.1004(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

§ 63.1011 Pressure relief devices in gas and vapor service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Compliance standard.* Except during pressure releases as provided for in paragraph (c) of this section, each pressure relief device in gas or vapor service shall be operated with an instrument reading of less than 500 parts per million as measured by the method specified in § 63.1004(c).

(c) *Pressure relief requirements.* (1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release, except as provided in paragraph (d) of this section.

(2) The pressure relief device shall be monitored no later than five calendar days after the pressure release and being returned to regulated material service to confirm the condition indicated by an instrument reading of less than 500 parts per million, as measured by the method specified in § 63.1004(c).

(3) The owner or operator shall record the dates and results of the monitoring required by paragraph (c)(2) of this section following a pressure release including maximum instrument reading measured during the monitoring and the background level measured if the instrument reading is adjusted for background.

(d) *Pressure relief devices routed to a process or fuel gas system or equipped with a closed vent system and control device.* Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system that captures and transports leakage from the pressure relief device to a control device meeting the requirements of § 63.1015 is exempt from the requirements of paragraphs (b) and (c) of this section.

(e) *Rupture disk exemption.* Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (b) and (c) of this section provided the owner or operator installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release, but no later than 5 calendar days after each pressure release, except as provided in § 63.1005(d).

§ 63.1012 Compressor standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Seal system standard.* Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in § 63.1002(b) and paragraphs (e) and (f) of this section. Each compressor seal system shall meet the requirements specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section.

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of startup, shutdown, or malfunction); or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of § 63.1015; or

(3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream.

(c) *Barrier fluid system.* The barrier fluid shall not be in light liquid service. Each barrier fluid system shall be

equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. Each sensor shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site.

(d) *Failure criterion and leak detection.* (1) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected and shall be repaired pursuant to § 63.1005, as applicable.

(2) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

(e) *Routed to a process or fuel gas system or equipped with a closed vent system and control device.* A compressor is exempt from the requirements of paragraphs (b) through (d) of this section if it is equipped with a system to capture and transport leakage from the compressor drive shaft seal to a process or a fuel gas system or to a closed vent system that captures and transports leakage from the compressor to a control device meeting the requirements of § 63.1015.

(f) *Alternative compressor standard.* (1) Any compressor that is designated as described in § 63.1003(e) as operating with no detectable emissions shall operate at all times with an instrument reading of less than 500 parts per million. A compressor so designated is exempt from the requirements of paragraphs (b) through (d) of this section if the compressor is demonstrated initially upon designation, annually, and at other times requested by the Administrator to be operating with an instrument reading of less than 500 parts per million as measured by the method specified in § 63.1004(c). A compressor may not be designated or operated having an instrument reading of less than 500 parts per million as described in § 63.1003(e) if the compressor has a maximum instrument reading greater than 500 parts per million.

(2) The owner or operator shall record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test.

(g) *Reciprocating compressor exemption.* Any existing reciprocating compressor in a process unit or affected facility that becomes an affected facility under provisions of 40 CFR 60.14 or 60.15 is exempt from paragraphs (b), (c), and (d) of this section provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of the above exempted paragraphs of this section.

[64 FR 34886, June 29, 1999, as amended at 64 FR 63706, Nov. 22, 1999]

§ 63.1013 Sampling connection systems standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Equipment requirement.* Each sampling connection system shall be equipped with a closed purge, closed loop, or closed vent system, except as provided in paragraph (d) of this section. Gases displaced during filling of the sample container are not required to be collected or captured.

(c) *Equipment design and operation.* Each closed-purge, closed-loop, or closed vent system except as provided in paragraph (d) of this section shall meet the applicable requirements specified in paragraphs (c)(1) through (c)(5) of this section.

(1) The system shall return the purged process fluid directly to a process line or fuel gas system meeting the compliance determinations in § 63.1015 or § 63.1002(b) as appropriate; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that meets the requirements of § 63.1015; or

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (c)(4)(i), (c)(4)(ii), or (c)(4)(iii) of this section.

(i) A waste management unit as defined in 40 CFR 63.111 or 40 CFR part 63, subpart G, if the waste management unit is complying with the provisions of 40 CFR part 63, subpart G, applicable to group 1 wastewater streams. If the purged process fluid does not contain any organic HAP listed in table 9 of 40 CFR part 63, subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, subpart G, applicable to subject wastewater steams provided the facility has a National Pollution Discharge Elimination System (NPDES) permit or sends the wastewater to an NPDES-permitted facility.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(5) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(d) *In-situ sampling systems.* In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (b) and (c) of this section.

§ 63.1014 Open-ended valves or lines standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Equipment and operational requirements.* (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §63.1002(b) and paragraphs (c) and (d) of this section. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of paragraphs (b)(2) and (b)(3) of this section also apply.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (b)(1) of this section at all other times.

(c) *Emergency shutdown exemption.* Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of paragraph (b) of this section.

(d) *Polymerizing materials exemption.* Open-ended valves or lines containing materials that would autocatalytically polymerize or, would present an explosion, serious over pressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraph (b) of this section are exempt from the requirements of paragraph (b) of this section.

§ 63.1015 Closed vent systems and control devices; or emissions routed to a fuel gas system or process.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Compliance standard.* (1) Owners or operators of closed vent systems and nonflare control devices used to comply with provisions of this subpart shall design and operate the closed vent system and nonflare control devices to reduce emissions of regulated material with an efficiency of 95 percent or greater or to reduce emissions of regulated material to a concentration of 20 parts per million by volume or, for an enclosed combustion device, to provide a minimum of 760 °C (1400 °F). Owners and operators of closed vent systems and nonflare control devices used to comply with this subpart shall comply with the provisions of subpart SS of this part, except as provided in §63.1002(b).

(2) Owners or operators of closed vent systems and flares used to comply with the provisions of this subpart shall design and operate the flare as specified in subpart SS of this part, except as provided in §63.1002(b).

(3) Owners or operators routing emissions from equipment leaks to a fuel gas system or process shall comply with the provisions of subpart SS of this part, except as provided in § 63.1002(b).

§ 63.1016 Alternative means of emission limitation: Enclosed-vented process units.

(a) *Use of closed vent system and control device.* Process units of affected facilities or portions of process units of affected facilities enclosed in such a manner that all emissions from equipment leaks are routed to a process or fuel gas system or collected and vented through a closed vent system to a control device meeting the requirements of either § 63.1015 or § 63.1002(b) are exempt from the requirements of §§ 63.1006 through 63.1014. The enclosure shall be maintained under a negative pressure at all times while the process unit or affected facility is in operation to ensure that all emissions are routed to a control device.

(b) *Recordkeeping.* Owners and operators choosing to comply with the requirements of this section shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section.

(1) Identification of the process unit(s) or affected facilities and the regulated materials they handle.

(2) A schematic of the process unit or affected facility, enclosure, and closed vent system.

(3) A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device.

§ 63.1017 Recordkeeping requirements.

(a) *Recordkeeping system.* An owner or operator of more than one regulated source subject to the provisions of this subpart may comply with the recordkeeping requirements for these regulated sources in one recordkeeping system. The recordkeeping system shall identify each record by regulated source and the type of program being implemented (e.g., quarterly monitoring) for each type of equipment. The records required by this subpart are summarized in paragraphs (b) and (c) of this section.

(b) *General equipment leak records.* (1) As specified in § 63.1003(a) through (d), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation.

(2) The owner or operator shall keep a written plan as specified in § 63.1003(c)(5) for any equipment that is designated as unsafe or difficult-to-monitor.

(3) The owner or operator shall maintain the identity and an explanation as specified in § 63.1003(d)(1) for any equipment that is designated as unsafe-to-repair.

(4) As specified in § 63.1003(e), the owner or operator shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million.

(5) The owner or operator shall keep records for leaking equipment as specified in § 63.1004(e).

(6) The owner or operator shall keep records for delay of repair as specified in § 63.1005(c) and records for leak repair as specified in § 63.1005(e).

(c) *Specific equipment leak records.* (1) For valves, the owner or operator shall maintain the monitoring schedule for each process unit as specified in § 63.1006(b), and the records specified in § 63.1006(e)(4)(i)(B).

(2) For pumps, the owner or operator shall maintain the records specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

(i) Documentation of pump visual inspections as specified in § 63.1007(b)(4).

(ii) Documentation of dual mechanical seal pump visual inspections as specified in § 63.1007(e)(1)(v).

(iii) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in § 63.1007(e)(1)(i).

(3) [Reserved]

(4) For agitators, the owner or operator shall maintain records specified in paragraphs (c)(4)(i) and (c)(4)(ii) of this section.

(i) Documentation of the agitator seal visual inspections as specified in § 63.1009(b)(3).

(ii) Documentation of the design criteria and explanations and any changes and the reason for the changes, as specified in § 63.1009(e)(1)(vi)(A).

(5) For pressure relief devices in gas and vapor or light liquid service, the owner or operator shall keep records of the dates and results of monitoring following a pressure release, as specified in § 63.1011(c)(3).

(6) For compressors, the owner or operator shall maintain the records specified in paragraphs (c)(6)(i) and (c)(6)(ii) of this section.

(i) For criteria as to failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes and the reason for the changes, as specified in § 63.1012(d)(2).

(ii) For compressors operating under the alternative compressor standard, record the dates and results of each compliance test as specified in § 63.1012(f)(2).

(7) For process units complying with the enclosed-vented process unit alternative, the owner or operator shall maintain the records for enclosed-vented process units as specified in § 63.1016(b).

§ 63.1018 Reporting requirements.

(a) *Periodic reports.* The owner or operator shall report the information specified in paragraphs (a)(1) through (a)(2) of this section, as applicable, in the periodic report specified in the referencing subpart.

(1) The initial Periodic Report shall include the information specified in paragraphs (a)(1)(i) through (a)(1)(iv) and (a)(2) of this section.

(i) Process unit or affected facility identification.

(ii) Number of valves subject to the requirements of § 63.1006, excluding those valves designated for no detectable emissions under the provisions of § 63.1006(e)(4).

(iii) Number of pumps subject to the requirements of § 63.1007, excluding those pumps designated for no detectable emissions under the provisions of § 63.1007(e)(2) and those pumps complying with the closed vent system provisions of § 63.1007(e)(3).

(iv) Number of compressors subject to the requirements of § 63.1012, excluding those compressors designated for no detectable emissions under the provisions of § 63.1012(f) and those compressors complying with the closed vent system provisions of § 63.1012(e).

(2) Each periodic report shall contain the information listed in paragraphs (a)(2)(i) through (a)(2)(iv) of this section, as applicable.

(i) Process unit identification.

(ii) For each month during the semiannual reporting period,

(A) Number of valves for which leaks were detected as described in § 63.1006(b),

(B) Number of valves for which leaks were not repaired as required in § 63.1006(d),

(C) Number of pumps for which leaks were detected as described in § 63.1007(b) and § 63.1007(e)(1)(vi),

(D) Number of pumps for which leaks were not repaired as required in §§ 63.1007(d) and (e)(5),

(E) Number of compressors for which leaks were detected as described in § 63.1012(d)(1),

(F) Number of compressors for which leaks were not repaired as required in § 63.1012(d)(1), and

(G) The facts that explain each delay of repair and, where appropriate, why the repair was technically infeasible without a process unit or affected facility shutdown.

(iii) Dates of process unit or affected facility shutdowns which occurred within the periodic report reporting period.

(iv) Revisions to items reported according to paragraph (a)(1) of this section if changes have occurred since the initial report or subsequent revisions to the initial report.

(b) *Special notifications.* An owner or operator electing to comply with either of the alternatives in § 63.1006(b)(5) or (6) shall notify the Administrator of the alternative standard selected before implementing either of the provisions.

Subpart UU—National Emission Standards for Equipment Leaks—Control Level 2 Standards

SOURCE: 64 FR 34899, June 29, 1999, unless otherwise noted.

§ 63.1019 Applicability.

(a) The provisions of this subpart apply to the control of air emissions from equipment leaks for which another subpart references the use of this subpart for such air emission control. These air emission standards for equipment leaks are placed here for administrative convenience and only apply to those owners and operators of facilities subject to a referencing subpart. The provisions of 40 CFR part 63, subpart A (General Provisions) do not apply to this subpart except as noted in the referencing subpart.

(b) *Equipment subject to this subpart.* The provisions of this subpart and the referencing subpart apply to equipment that contains or contacts regulated material. This subpart applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and closed vent systems and control devices used to meet the requirements of this subpart.

(c) *Equipment in vacuum service.* Equipment in vacuum service is excluded from the requirements of this subpart.

(d) *Equipment in service less than 300 hours per calendar year.* Equipment intended to be in regulated material service less than 300 hours per calendar year is excluded from the requirements of §§ 63.1025 through 63.1034 and § 63.1036 if it is identified as required in § 63.1022(b)(5).

(e) *Lines and equipment not containing process fluids.* Lines and equipment not containing process fluids are not subject to the provisions of this subpart. Utilities, and other non-process lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility.

(f) *Implementation and enforcement.* This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(1) 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 paragraphs (f)(i) through (v) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(i) Approval of alternatives to the nonopacity emissions standards in §§ 63.1022 through 62.1034, under § 63.6(g), and the standards for quality improvement programs in § 63.1035. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(ii) [Reserved]

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

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

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

[64 FR 34899, June 29, 1999, as amended at 67 FR 46279, July 12, 2002]

§ 63.1020 Definitions.

All terms used in this part shall have the meaning given them in the Act and in this section.

Batch process means a process in which the equipment is fed intermittently or discontinuously. Processing then occurs in this equipment after which the equipment is generally emptied. Examples of industries that use batch processes include pharmaceutical production and pesticide production.

Batch product-process equipment train means the collection of equipment (e.g., connectors, reactors, valves, pumps, etc.) configured to produce a specific product or intermediate by a batch process.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Closed-loop system means an enclosed system that returns process fluid to the process and is not vented directly to the atmosphere.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers must be covered or closed when not being filled or emptied.

Closed-vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Connector means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, ceramic, or ceramic-lined (e.g., porcelain, glass, or glass-lined) as described in §63.1027(e)(2).

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this part. Such equipment or devices include, but are not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. Primary condensers on steam strippers or fuel gas systems are not considered control devices.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in regulated material service; and any control devices or systems used to comply with this subpart.

First attempt at repair, for the purposes of this subpart, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in §§63.1023(b) and (c) of this subpart in to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use a fuel gas in combustion equipment, such as furnaces and gas turbines, either singly or in combination.

In food and medical service means that a piece of equipment in regulated material service contacts a process stream used to manufacture a Food and Drug Administration regulated product where leakage of a barrier fluid into the process stream would cause any of the following:

(1) A dilution of product quality so that the product would not meet written specifications,

(2) An exothermic reaction which is a safety hazard,

(3) The intended reaction to be slowed down or stopped, or

(4) An undesired side reaction to occur.

In gas and vapor service means that a piece of equipment in regulated material service contains a gas or vapor at operating conditions.

In heavy liquid service means that a piece of equipment in regulated material service is not in gas and vapor service or in light liquid service.

In light liquid service means that a piece of equipment in regulated material service contains a liquid that meets the following conditions:

(1) The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 °C,

(2) The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 °C is equal to or greater than 20 percent by weight of the total process stream, and

(3) The fluid is a liquid at operating conditions.

(NOTE TO DEFINITION OF ''IN LIGHT LIQUID SERVICE'': Vapor pressures may be determined by standard reference texts or ASTM D–2879.)

In liquid service means that a piece of equipment in regulated material service is not in gas and vapor service.

In organic hazardous air pollutant or in organic HAP service means that piece of equipment either contains or contracts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of § 63.180(d) of subpart H. The provisions of § 63.180(d) of subpart H also specify how to determine that a piece of equipment is not in organic HAP service.

In regulated material service means, for the purposes of this subpart, equipment which meets the definition of ''in VOC service,'' ''in VHAP service,'' ''in organic hazardous air pollutant service,'' or ''in'' other chemicals or groups of chemicals ''service'' as defined in the referencing subpart.

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

Initial startup means for new sources, the first time the source begins production. For additions or changes not defined as a new source by this subpart, initial startup means the first time additional or changed equipment is put into operation. Initial startup does not include operation solely for testing of equipment. Initial startup does not include subsequent startup of process units following malfunction or process unit shutdowns. Except for equipment leaks, initial startup also does not include subsequent startups (of process units following changes in product for flexible operation units or following recharging of equipment in batch unit operations).

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 1.27 centimeters (0.5 inches) and smaller, and connectors nominally 1.91 centimeters (0.75 inches) and smaller in diameter are considered instrumentation systems for the purposes of this subpart. Valves greater than nominally 1.27 centimeters (0.5 inches) and connectors greater than nominally 1.91 centimeters (0.75 inches) associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually.

Liquids dripping means any visible leakage from the seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquids dripping include puddling or new stains that are indicative of an existing evaporated drip.

Nonrepairable means that it is technically infeasible to repair a piece of equipment from which a leak has been detected without a process unit or affected facility shutdown.

Open-ended valve or line means any valve, except relief valves, having one

side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.

Organic monitoring device means a unit of equipment used to indicate the concentration level of organic compounds based on a detection principle such as infra-red, photoionization, or thermal conductivity.

Polymerizing monomer means a compound which may form polymer build-up in pump mechanical seals resulting in rapid mechanical seal failure.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the relief device. This release can be one release or a series of releases over a short time period due to a malfunction in the process.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Process unit means the equipment specified in the definitions of process unit in the applicable referencing subpart. If the referencing subpart does not define process unit, then for the purposes of this part, process unit means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit, or part of a process unit during which it is technically feasible to clear process material from a process unit, or part of a process unit, consistent with safety constraints and during which repairs can be affected. The following are not considered process unit shutdowns:

(1) An unscheduled work practice or operations procedure that stops production from a process unit, or part of a process unit, for less than 24 hours.

(2) An unscheduled work practice or operations procedure that would stop production from a process unit, or part of a process unit, for a shorter period of time than would be required to clear the process unit, or part of the process unit, of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.

(3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Referencing subpart means the subpart that refers an owner or operator to this subpart.

Regulated material, for purposes of this part, refers to gas from volatile organic liquids (VOL), volatile organic compounds (VOC), hazardous air pollutants (HAP), or other chemicals or groups of chemicals that are regulated by the referencing subpart.

Regulated source for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a referencing subpart.

Relief device or valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Repaired, for the purposes of this subpart, means that equipment is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of this subpart and unless otherwise specified in applicable provisions of this subpart, is monitored as specified in §§ 63.1023(b) and (c) to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the emissions are conveyed to any enclosed portion of a process unit where the emissions are predominantly recycled and/or consumed in the same manner as a material that fulfills the same function in the process and/or transformed by chemical reaction into materials that are not regulated materials and/or incorporated into a product; and/or recovered.

Sampling connection system means an assembly of equipment within a process unit or affected facility used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Screwed (threaded) connector means a threaded pipe fitting where the threads are cut on the pipe wall and the fitting requires only two pieces to make the connection (i.e., the pipe and the fitting).

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Set pressure means for the purposes of this subpart, the pressure at which a properly operating pressure relief device begins to open to relieve atypical process system operating pressure.

Start-up means the setting into operation of a piece of equipment or a control device that is subject to this subpart.

§ 63.1021 Alternative means of emission limitation.

(a) *Performance standard exemption.* The provisions of paragraph (b) of this section do not apply to the performance standards of § 63.1030(b) for pressure relief devices or § 63.1031(f) for compressors operating under the alternative compressor standard.

(b) *Requests by owners or operators.* An owner or operator may request a determination of alternative means of emission limitation to the requirements of §§ 63.1025 through 63.1034 as provided in paragraph (d) of this section. If the Administrator makes a determination that a means of emission limitation is a permissible alternative, the owner or operator shall either comply with the alternative or comply with the requirements of §§ 63.1025 through 63.1034.

(c) *Requests by manufacturers of equipment.* (1) Manufacturers of equipment used to control equipment leaks of the regulated material may apply to the Administrator for permission for an alternative means of emission limitation that achieves a reduction in emissions of the regulated material achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will grant permission according to the provisions of paragraph (d) of this section.

(d) *Permission to use an alternative means of emission limitation.* Permission to use an alternative means of emission limitation shall be governed by the procedures in paragraphs (d)(1) through (d)(4) of this section.

(1) Where the standard is an equipment, design, or operational requirement, the requirements of paragraphs (d)(1)(i) through (d)(1)(iii) of this section apply.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying emission performance test data for an alternative means of emission limitation.

(ii) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(iii) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve at least the same emission reduction as the equipment, design, and operational requirements of this subpart.

(2) Where the standard is a work practice, the requirements of paragraphs (d)(2)(i) through (d)(2)(vi) of this section apply.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying test data for the alternative.

(ii) For each kind of equipment for which permission is requested, the emission reduction achieved by the required work practices shall be demonstrated for a minimum period of 12 months.

(iii) For each kind of equipment for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.

(iv) Each owner or operator applying for such permission shall commit, in writing, for each kind of equipment to

work practices that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practices.

(v) The Administrator will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (d)(2)(iv) of this section.

(vi) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same or greater emission reduction as the required work practices of this subpart.

(3) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation.

(4) If, in the judgement of the Administrator, an alternative means of emission limitation will be approved, the Administrator will publish a notice of the determination in the FEDERAL REGISTER using the procedures specified in the referencing subpart.

§ 63.1022 Equipment identification.

(a) *General equipment identification.* Equipment subject to this subpart shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods.

(b) *Additional equipment identification.* In addition to the general identification required by paragraph (a) of this section, equipment subject to any of the provisions in §§ 63.1023 through 63.1034 shall be specifically identified as required in paragraphs (b)(1) through (b)(5) of this section, as applicable. This paragraph does not apply to an owner or operator of a batch product process who elects to pressure test the batch product process equipment train pursuant to § 63.1036.

(1) *Connectors.* Except for inaccessible, ceramic, or ceramic-lined connectors meeting the provision of § 63.1027(e)(2) and instrumentation systems identified pursuant to paragraph (b)(4) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the identification shall be complete no later than the completion of the initial survey required by paragraph (a) of this section.

(2) *Routed to a process or fuel gas system or equipped with a closed vent system and control device.* Identify the equipment that the owner or operator elects to route to a process or fuel gas system or equip with a closed vent system and control device, under the provisions of § 63.1026(e)(3) (pumps in light liquid service), § 63.1028(e)(3) (agitators), § 63.1030(d) (pressure relief devices in gas and vapor service), § 63.1031(e) (compressors), or § 63.1037(a) (alternative means of emission limitation for enclosed-vented process units).

(3) *Pressure relief devices.* Identify the pressure relief devices equipped with rupture disks, under the provisions of § 63.1030(e).

(4) *Instrumentation systems.* Identify instrumentation systems subject to the provisions of § 63.1029 of this subpart. Individual components in an instrumentation system need not be identified.

(5) *Equipment in service less than 300 hours per calendar year.* The identity, either by list, location (area or group), or other method, of equipment in regulated material service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of this subpart shall be recorded.

(c) *Special equipment designations: Equipment that is unsafe or difficult-to-monitor*—(1) *Designation and criteria for unsafe-to-monitor.* Valves meeting the provisions of § 63.1025(e)(1), pumps meeting the provisions of § 63.1026(e)(6), connectors meeting the provisions of § 63.1027(e)(1), and agitators meeting the provisions of § 63.1028(e)(7) may be designated unsafe-to-monitor if the owner or operator determines that

monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of this subpart. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.

(2) *Designation and criteria for difficult-to-monitor.* Valves meeting the provisions of § 63.1025(e)(2) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(i) apply. Agitators meeting the provisions of § 63.1028(e)(5) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(ii) apply.

(i) *Valves.* (A) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service; and

(B) The process unit or affected facility within which the valve is located is an existing source, or the owner or operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor.

(ii) *Agitators.* The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.

(3) *Identification of unsafe or difficult-to-monitor equipment.* The owner or operator shall record the identity of equipment designated as unsafe-to-monitor according to the provisions of paragraph (c)(1) of this section and the planned schedule for monitoring this equipment. The owner or operator shall record the identity of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section, the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector.

(4) *Written plan requirements.* (i) The owner or operator of equipment designated as unsafe-to-monitor according to the provisions of paragraph (c)(1) of this section shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in § 63.1024 if a leak is detected.

(ii) The owner or operator of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section shall have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in § 63.1024 if a leak is detected.

(d) *Special equipment designations: Equipment that is unsafe-to-repair*—(1) *Designation and criteria.* Connectors subject to the provisions of § 63.1024(e) may be designated unsafe-to-repair if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of this subpart, and if the connector will be repaired before the end of the next process unit or affected facility shutdown as specified in § 63.1024(e)(2).

(2) *Identification of equipment.* The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded.

(e) *Special equipment designations: Compressors operating with an instrument reading of less than 500 parts per million above background.* Identify the compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of § 63.1031(f).

(f) *Special equipment designations: Equipment in heavy liquid service.* The owner or operator of equipment in heavy liquid service shall comply with the requirements of either paragraph (f)(1) or (f)(2) of this section, as provided in paragraph (f)(3) of this section.

(1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.

(2) When requested by the Administrator, demonstrate that the piece of

equipment or process is in heavy liquid service.

(3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of ''in light liquid service.'' Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

§ 63.1023 Instrument and sensory monitoring for leaks.

(a) *Monitoring for leaks.* The owner or operator of a regulated source subject to this subpart shall monitor regulated equipment as specified in paragraph (a)(1) of this section for instrument monitoring and paragraph (a)(2) of this section for sensory monitoring.

(1) *Instrument monitoring for leaks.* (i) Valves in gas and vapor service and in light liquid service shall be monitored pursuant to § 63.1025(b).

(ii) Pumps in light liquid service shall be monitored pursuant to § 63.1026(b).

(iii) Connectors in gas and vapor service and in light liquid service shall be monitored pursuant to § 63.1027(b).

(iv) Agitators in gas and vapor service and in light liquid service shall be monitored pursuant to § 63.1028(c).

(v) Pressure relief devices in gas and vapor service shall be monitored pursuant to § 63.1030(c).

(vi) Compressors designated to operate with an instrument reading less than 500 parts per million above background, as described in § 63.1022(e), shall be monitored pursuant to § 63.1031(f).

(2) *Sensory monitoring for leaks.* (i) Pumps in light liquid service shall be observed pursuant to §§ 63.1026(b)(4) and (e)(1)(v).

(ii) [Reserved]

(iii) Agitators in gas and vapor service and in light liquid service shall be observed pursuant to § 63.1028(c)(3) or (e)(1)(iv).

(iv) [Reserved]

(b) *Instrument monitoring methods.* Instrument monitoring, as required under this subpart, shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

(1) *Monitoring method.* Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A, except as otherwise provided in this section.

(2) *Detection instrument performance criteria.* (i) Except as provided for in paragraph (b)(2)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2, paragraph (a) of Method 21 shall be for the representative composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, air, water or other inerts that are not HAP or VOC, the representative stream response factor shall be determined on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

(ii) If there is no instrument commercially available that will meet the performance criteria specified in paragraph (b)(2)(i) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in paragraph (b)(2)(i) of this section.

(3) *Detection instrument calibration procedure.* The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(4) *Detection instrument calibration gas.* Calibration gases shall be zero air (less than 10 parts per million of hydrocarbon in air); and the gases specified in paragraph (b)(4)(i) of this section except as provided in paragraph (b)(4)(ii) of this section.

(i) Mixtures of methane in air at a concentration no more than 2,000 parts per million greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak, and the highest

scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(ii) A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (b)(2)(i) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(5) *Monitoring performance.* Monitoring shall be performed when the equipment is in regulated material service or is in use with any other detectable material.

(6) *Monitoring data.* Monitoring data obtained prior to the regulated source becoming subject to the referencing subpart that do not meet the criteria specified in paragraphs (b)(1) through (b)(5) of this section may still be used to qualify initially for less frequent monitoring under the provisions in §63.1025(a)(2), (b)(3) or (b)(4) for valves or §63.1027(b)(3) for connectors provided the departures from the criteria or from the specified monitoring frequency of §63.1025(b)(3) or (b)(4) or §63.1027(b)(3) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2, paragraph (a) of Method 21 of appendix A of 40 CFR part 60 instead of paragraph (b)(2) of this section, or monitoring using a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in this subpart. Failure to use a calibrated instrument is not considered a minor departure.

(c) *Instrument monitoring using background adjustments.* The owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects not to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (b)(1) through (b)(5) of this section. In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with §63.1030(b) (pressure relief devices) or §63.1031(f) (alternative compressor standard). If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (c)(1) through (c)(4) of this section.

(1) The requirements of paragraphs (b)(1) through (b)(5) of this section shall apply.

(2) The background level shall be determined, using the procedures in Method 21 of 40 CFR part 60, appendix A.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with §63.1030(b) (pressure relief devices) or §63.1031(f) (alternative compressor standard).

(d) *Sensory monitoring methods.* Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere.

(e) *Leaking equipment identification and records.* (1) When each leak is detected pursuant to the monitoring specified in paragraph (a) of this section, a weatherproof and readily visible identification, shall be attached to the leaking equipment.

(2) When each leak is detected, the information specified in §63.1024(f) shall be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the 8 year monitoring period allowed under §63.1027(b)(3)(iii) shall be kept 5 years beyond the date of its last use.

§ 63.1024 Leak repair.

(a) *Leak repair schedule.* The owner or operator shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in paragraphs (d) and (e) of this section. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

(b) [Reserved]

(c) *Leak identification removal*—(1) *Valves and connectors in gas/vapor and light liquid service.* The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in § 63.1025(d)(2), and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in § 63.1027(b)(3)(iv) and no leak has been detected during that monitoring.

(2) *Other equipment.* The identification that has been placed, pursuant to § 63.1023(e)(1), on equipment determined to have a leak, except for a valve or for a connector in gas/vapor or light liquid service that is subject to the provisions of § 63.1027(b)(3)(iv), may be removed after it is repaired.

(d) *Delay of repair.* Delay of repair is allowed for any of the conditions specified in paragraphs (d)(1) through (d)(5) of this section. The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

(1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in paragraph (d)(5) of this section.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

(3) Delay of repair for valves, connectors, and agitators is also allowed if the provisions of paragraphs (d)(3)(i) and (d)(3)(ii) of this section are met.

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either § 63.1034 or § 63.1021(b) of this part.

(4) Delay of repair for pumps is also allowed if the provisions of paragraphs (d)(4)(i) and (d)(4)(ii) of this section are met.

(i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of § 63.1035(d) will provide better performance or one of the specifications of paragraphs (d)(4)(i)(A) through (d)(4)(i)(C) of this section are met.

(A) A dual mechanical seal system that meets the requirements of § 63.1026(e)(1) will be installed;

(B) A pump that meets the requirements of § 63.1026(e)(2) will be installed; or

(C) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of § 63.1026(e)(3) will be installed; and

(ii) Repair is completed as soon as practical, but not later than 6 months after the leak was detected.

(5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the

process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

(e) *Unsafe-to-repair—connectors.* Any connector that is designated, as described in § 63.1022(d), as an unsafe-to-repair connector is exempt from the requirements of § 63.1027(d), and paragraph (a) of this section.

(f) *Leak repair records.* For each leak detected, the information specified in paragraphs (f)(1) through (f)(5) of this section shall be recorded and maintained pursuant to the referencing subpart.

(1) The date of first attempt to repair the leak.

(2) The date of successful repair of the leak.

(3) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A at the time the leak is successfully repaired or determined to be nonrepairable.

(4) ''Repair delayed'' and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in paragraphs (f)(4)(i) and (f)(4)(ii) of this section.

(i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

§ 63.1025 Valves in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* (1) The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(2) The use of monitoring data generated before the regulated source became subject to the referencing subpart to qualify initially for less frequent monitoring is governed by the provisions of § 63.1023(b)(6).

(b) *Leak detection.* Unless otherwise specified in § 63.1021(b) or paragraph (e) of this section, or the referencing subpart, the owner or operator shall monitor all valves at the intervals specified in paragraphs (b)(3) and/or (b)(4) of this section and shall comply with all other provisions of this section.

(1) *Monitoring method.* The valves shall be monitored to detect leaks by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c).

(2) *Instrument reading that defines a leak.* The instrument reading that defines a leak is 500 parts per million or greater.

(3) *Monitoring frequency.* The owner or operator shall monitor valves for leaks at the intervals specified in paragraphs (b)(3)(i) through (b)(3)(v) of this section and shall keep the record specified in paragraph (b)(3)(vi) of this section.

(i) If at least the greater of 2 valves or 2 percent of the valves in a process unit leak, as calculated according to paragraph (c) of this section, the owner or operator shall monitor each valve once per month.

(ii) At process units with less than the greater of 2 leaking valves or 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in paragraphs (b)(3)(iii) through (b)(3)(v) of this section. Monitoring data generated before the regulated source became subject to the referencing subpart and meeting the criteria of either § 63.1023(b)(1) through (b)(5), or § 63.1023(b)(6), may be used to qualify initially for less frequent monitoring under paragraphs (b)(3)(iii) through (b)(3)(v) of this section.

(iii) At process units with less than 1 percent leaking valves, the owner or

operator may elect to monitor each valve once every two quarters

(iv) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every four quarters.

(v) At process units with less than 0.25 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 years.

(vi) The owner or operator shall keep a record of the monitoring schedule for each process unit.

(4) *Valve subgrouping.* For a process unit or a group of process units to which this subpart applies, an owner or operator may choose to subdivide the valves in the applicable process unit or group of process units and apply the provisions of paragraph (b)(3) of this section to each subgroup. If the owner or operator elects to subdivide the valves in the applicable process unit or group of process units, then the provisions of paragraphs (b)(4)(i) through (b)(4)(viii) of this section apply.

(i) The overall performance of total valves in the applicable process unit or group of process units to be subdivided shall be less than 2 percent leaking valves, as detected according to paragraphs (b)(1) and (b)(2) of this section and as calculated according to paragraphs (c)(1)(ii) and (c)(2) of this section.

(ii) The initial assignment or subsequent reassignment of valves to subgroups shall be governed by the provisions of paragraphs (b)(4)(ii)(A) through (b)(4)(ii)(C) of this section.

(A) The owner or operator shall determine which valves are assigned to each subgroup. Valves with less than one year of monitoring data or valves not monitored within the last twelve months must be placed initially into the most frequently monitored subgroup until at least one year of monitoring data have been obtained.

(B) Any valve or group of valves can be reassigned from a less frequently monitored subgroup to a more frequently monitored subgroup provided that the valves to be reassigned were monitored during the most recent monitoring period for the less frequently monitored subgroup. The monitoring results must be included with that less frequently monitored subgroup's associated percent leaking valves calculation for that monitoring event.

(C) Any valve or group of valves can be reassigned from a more frequently monitored subgroup to a less frequently monitored subgroup provided that the valves to be reassigned have not leaked for the period of the less frequently monitored subgroup (e.g., for the last 12 months, if the valve or group of valves is to be reassigned to a subgroup being monitored annually). Nonrepairable valves may not be reassigned to a less frequently monitored subgroup.

(iii) The owner or operator shall determine every 6 months if the overall performance of total valves in the applicable process unit or group of process units is less than 2 percent leaking valves and so indicate the performance in the next Periodic Report. If the overall performance of total valves in the applicable process unit or group of process units is 2 percent leaking valves or greater, the owner or operator shall no longer subgroup and shall revert to the program required in paragraphs (b)(1) through (b)(3) of this section for that applicable process unit or group of process units. An owner or operator can again elect to comply with the valve subgrouping procedures of paragraph (b)(4) of this section if future overall performance of total valves in the process unit or group of process units is again less than 2 percent. The overall performance of total valves in the applicable process unit or group of process units shall be calculated as a weighted average of the percent leaking valves of each subgroup according to Equation number 1:

$$\%V_{LO} = \frac{\sum_{i=1}^{n}\left(\%V_{Li} \times V_i\right)}{\sum_{i=1}^{n} V_i} \qquad \text{[Eq. 1]}$$

where:

$\%V_{LO}$ = Overall performance of total valves in the applicable process unit or group of process units

$\%V_{Li}$ = Percent leaking valves in subgroup i, most recent value calculated according to the procedures in paragraphs (c)(1)(ii) and (c)(2) of this section.

V_i = Number of valves in subgroup i.

n = Number of subgroups.

(iv) The owner or operator shall maintain records specified in paragraphs (b)(4)(iv)(A) through (b)(4)(iv)(D) of this section.

(A) Which valves are assigned to each subgroup,

(B) Monitoring results and calculations made for each subgroup for each monitoring period,

(C) Which valves are reassigned, the last monitoring result prior to reassignment, and when they were reassigned, and

(D) The results of the semiannual overall performance calculation required in paragraph (b)(4)(iii) of this section.

(v) The owner or operator shall notify the Administrator no later than 30 days prior to the beginning of the next monitoring period of the decision to subgroup valves. The notification shall identify the participating process units and the number of valves assigned to each subgroup, if applicable, and may be included in the next Periodic Report.

(vi) The owner or operator shall submit in the periodic reports the information specified in paragraphs (b)(4)(vi)(A) and (b)(4)(vi)(B).

(A) Total number of valves in each subgroup, and

(B) Results of the semiannual overall performance calculation required by paragraph (b)(4)(iii) of this section.

(vii) To determine the monitoring frequency for each subgroup, the calculation procedures of paragraph (c)(2) of this section shall be used.

(viii) Except for the overall performance calculations required by paragraphs (b)(4)(i) and (iii) of this section, each subgroup shall be treated as if it were a process unit for the purposes of applying the provisions of this section.

(c) *Percent leaking valves calculation*—(1) *Calculation basis and procedures.* (i) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the subgrouping criteria specified in paragraph (b)(4)(i) of this section.

(ii) The percent leaking valves for each monitoring period for each process unit or valve subgroup, as provided in paragraph (b)(4) of this section, shall be calculated using the following equation:

$$\%V_L = \left(V_L / V_T\right) \times 100 \qquad \text{[Eq. 2]}$$

where:

$\%V_L$ = Percent leaking valves.

V_L = Number of valves found leaking, excluding nonrepairable valves, as provided in paragraph (c)(3) of this section, and including those valves found leaking pursuant to paragraphs (d)(2)(iii)(A) and (d)(2)(iii)(B) of this section.

V_T = The sum of the total number of valves monitored.

(2) *Calculation for monitoring frequency.* When determining monitoring frequency for each process unit or valve subgroup subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each process unit or valve subgroup subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last three monitoring periods.

(3) *Nonrepairable valves.* (i) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with paragraph (c)(3)(ii) of this section. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking valves calculation in a previous period) up to a maximum of 1 percent of the total number of valves in regulated material service at a process unit or affected facility may be excluded from calculation of percent leaking valves for subsequent monitoring periods.

(ii) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in regulated material service at a process unit or affected facility, the number of nonrepairable valves exceeding 1 percent of the total

number of valves in regulated material service shall be included in the calculation of percent leaking valves.

(d) *Leak repair*. (1) If a leak is determined pursuant to paragraph (b), (e)(1), or (e)(2) of this section, then the leak shall be repaired using the procedures in § 63.1024, as applicable.

(2) After a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repaired and first attempt at repair.

(i) The monitoring shall be conducted as specified in § 63.1023(b) and (c) of this section, as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by paragraph (b) of this section may be used to satisfy the requirements of this paragraph, if the timing of the monitoring period coincides with the time specified in this paragraph. Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph.

(iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (d)(2) of this section, the owner or operator shall follow the provisions of paragraphs (d)(2)(iii)(A) and (d)(2)(iii)(B) of this section, to determine whether that valve must be counted as a leaking valve for purposes of paragraph (c)(1)(ii) of this section.

(A) If the owner or operator elected to use periodic monitoring required by paragraph (b) of this section to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve.

(B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by paragraph (b) of this section, to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(e) *Special provisions for valves*—(1) *Unsafe-to-monitor valves*. Any valve that is designated, as described in § 63.1022(c)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraphs (b) and (d)(2) of this section and the owner or operator shall monitor the valve according to the written plan specified in § 63.1022(c)(4).

(2) *Difficult-to-monitor valves*. Any valve that is designated, as described in § 63.1022(c)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor the valve according to the written plan specified in § 63.1022(c)(4).

(3) *Fewer than 250 valves*. Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the requirements for monthly monitoring specified in paragraph (b)(3)(i) of this section. Instead, the owner or operator shall monitor each valve in regulated material service for leaks once each quarter, as provided in paragraphs (e)(1) and (e)(2) of this section.

§ 63.1026 Pumps in light liquid service standards.

(a) *Compliance schedule*. The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection*. Unless otherwise specified in § 63.1021(b), § 63.1036, § 63.1037, or paragraph (e) of this section, the owner or operator shall monitor each pump to detect leaks and shall comply with all other provisions of this section.

(1) *Monitoring method and frequency*. The pumps shall be monitored monthly to detect leaks by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c).

(2) *Instrument reading that defines a leak*. The instrument reading that defines a leak is specified in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) 5,000 parts per million or greater for pumps handling polymerizing monomers;

(ii) 2,000 parts per million or greater for pumps in food/medical service; and

(iii) 1,000 parts per million or greater for all other pumps.

(3) *Leak repair exception*. For pumps to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of

2,000 parts per million or greater is detected.

(4) *Visual inspection.* Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The owner or operator shall monitor the pump as specified in § 63.1023(b) and, as applicable, § 63.1023(c). If the instrument reading indicates a leak as specified in paragraph (b)(2) of this section, a leak is detected and it shall be repaired using the procedures in § 63.1024, except as specified in paragraph (b)(3) of this section; or

(ii) The owner or operator shall eliminate the visual indications of liquids dripping.

(c) *Percent leaking pumps calculation.* (1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis.

(2) If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of § 63.1035.

(3) The number of pumps at a process unit or affected facility shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or affected facility within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(4) Percent leaking pumps shall be determined by the following equation:

$$\%P_L = \left((P_L - P_S)/(P_T - P_S)\right) \times 100 \qquad \text{[Eq. 3]}$$

Where:

$\%P_L$ = Percent leaking pumps

P_L = Number of pumps found leaking as determined through monthly monitoring as required in paragraph (b)(1) of this section. Do not include results from inspection of unsafe-to-monitor pumps pursuant to paragraph (e)(6) of this section.

P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period.

P_T = Total pumps in regulated material service, including those meeting the criteria in paragraphs (e)(1), (e)(2), (e)(3), and (e)(6) of this section.

(d) *Leak repair.* If a leak is detected pursuant to paragraph (b) of this section, then the leak shall be repaired using the procedures in § 63.1024, as applicable, unless otherwise specified in paragraph (b)(5) of this section for leaks identified by visual indications of liquids dripping.

(e) *Special provisions for pumps*—(1) *Dual mechanical seal pumps.* Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (b) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(viii) of this section are met.

(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. The owner or operator shall keep records at the plant of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. This record must be available for review by an inspector.

(ii) Each dual mechanical seal system shall meet the requirements specified in paragraph (e)(1)(ii)(A), (e)(1)(ii)(B), or (e)(1)(ii)(C) of this section.

(A) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control

device that complies with the requirements of either § 63.1034 or § 63.1021(b) of this part; or

(C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(iii) The barrier fluid is not in light liquid service.

(iv) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(v) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in paragraphs (e)(1)(v)(A) or (e)(1)(v)(B) of this section prior to the next required inspection.

(A) The owner or operator shall monitor the pump as specified in § 63.1023(b) and, as applicable, § 63.1023 (c), to determine if there is a leak of regulated material in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in § 63.1024; or

(B) The owner or operator shall eliminate the visual indications of liquids dripping.

(vi) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (e)(1)(i) of this section, or if based on the criteria established in paragraph (e)(1)(i) of this section the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(vii) Each sensor as described in paragraph (e)(1)(iv) of this section is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

(viii) When a leak is detected pursuant to paragraph (e)(1)(vi) of this section, it shall be repaired as specified in § 63.1024.

(2) *No external shaft.* Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of paragraph (b) of this section.

(3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any pump that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage from the pump to a control device meeting the requirements of § 63.1034 of this part or § 63.1021(b) is exempt from the requirements of paragraph (b) of this section.

(4) *Unmanned plant site.* Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(4) and (e)(1)(v) of this section, and the daily requirements of paragraph (e)(1)(vii) of this section, provided that each pump is visually inspected as often as practical and at least monthly.

(5) *90 percent exemption.* If more than 90 percent of the pumps at a process unit or affected facility meet the criteria in either paragraph (e)(1) or (e)(2) of this section, the process unit or affected facility is exempt from the percent leaking calculation in paragraph (c) of this section.

(6) *Unsafe-to-monitor pumps.* Any pump that is designated, as described in § 63.1022(c)(1), as an unsafe-to-monitor pump is exempt from the requirements of paragraph (b) of this section, the monitoring and inspection requirements of paragraphs (e)(1)(v) through (viii) of this section, and the owner or operator shall monitor and inspect the pump according to the written plan specified in § 63.1022(c)(4).

[64 FR 34899, June 29, 1999, as amended at 64 FR 63706, Nov. 22, 1999]

§ 63.1027 Connectors in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* The owner or operator shall monitor all connectors in each process unit initially for leaks by the later of either 12 months after the compliance date as specified in a referencing subpart or 12 months after initial startup. If all connectors in each process unit have been monitored for leaks prior to the compliance date specified in the referencing subpart, no initial monitoring is required provided

either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) *Leak detection.* Except as allowed in § 63.1021(b), § 63.1036, § 63.1037, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) *Monitoring method.* The connectors shall be monitored to detect leaks by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c).

(2) *Instrument reading that defines a leak.* If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

(3) *Monitoring periods.* The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (b)(3)(iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (b)(3)(v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (b)(3)(iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4 year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent leaking connectors of the total monitored connectors.

(C) If the percent leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraph (b)(3)(i) through (b)(3)(iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) *Percent leaking connectors calculation.* For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using equation number 4.

$$\%C_L = C_L/C_t \times 100 \qquad \text{[Eq. 4]}$$

Where:

$\%C_L$ = Percent leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (b)(3)(iii) of this section.

C_L = Number of connectors measured at 500 parts per million or greater, by the method specified in §63.1023(b).

C_t = Total number of monitored connectors in the process unit or affected facility.

(d) *Leak repair*. If a leak is detected pursuant to paragraphs (a) and (b) of this section, then the leak shall be repaired using the procedures in §63.1024, as applicable.

(e) *Special provisions for connectors*—(1) *Unsafe-to-monitor connectors*. Any connector that is designated, as described in §63.1022(c)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section and the owner or operator shall monitor according to the written plan specified in §63.1022(c)(4).

(2) *Inaccessible, ceramic, or ceramic-lined connectors*. (i) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (e)(2)(i)(A) through (e)(2)(i)(F) of this section, as applicable.

(A) Buried;

(B) Insulated in a manner that prevents access to the connector by a monitor probe;

(C) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(D) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

(E) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold;

(F) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(ii) If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

§63.1028 Agitators in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule*. The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) [Reserved]

(c) *Leak detection*—(1) *Monitoring method*. Each agitator seal shall be monitored monthly to detect leaks by the methods specified in §63.1023(b) and, as applicable, §63.1023(c), except as provided in §63.1021(b), §63.1036, §63.1037, or paragraph (e) of this section.

(2) *Instrument reading that defines a leak*. If an instrument reading equivalent of 10,000 parts per million or greater is measured, a leak is detected.

(3) *Visual inspection*. (i) Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The owner or operator shall document that the inspection was conducted and the date of the inspection.

(ii) If there are indications of liquids dripping from the agitator seal, the owner or operator shall follow the procedures specified in paragraphs (c)(3)(ii)(A) or (c)(3)(ii)(B) of this section prior to the next required inspection.

(A) The owner or operator shall monitor the agitator seal as specified in §63.1023(b) and, as applicable, §63.1023(c), to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it shall be repaired according to paragraph (d) of this section; or

(B) The owner or operator shall eliminate the indications of liquids dripping from the agitator seal.

(d) *Leak repair.* If a leak is detected, then the leak shall be repaired using the procedures in § 63.1024.

(e) *Special provisions for agitators*—(1) *Dual mechanical seal.* Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (c) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(vi) of this section are met.

(i) Each dual mechanical seal system shall meet the applicable requirements specified in paragraphs (e)(1)(i)(A), (e)(1)(i)(B), or (e)(1)(i)(C) of this section.

(A) Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either § 63.1034 or § 63.1021(b); or

(C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(ii) The barrier fluid is not in light liquid service.

(iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(iv) Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in paragraphs (e)(1)(iv)(A) or (e)(1)(iv)(B) of this section prior to the next required inspection.

(A) The owner or operator shall monitor the agitator seal as specified in § 63.1023(b) and, as applicable, § 63.1023(c), to determine the presence of regulated material in the barrier fluid. If an instrument reading equivalent to or greater than 10,000 ppm is measured, a leak is detected and it shall be repaired using the procedures in § 63.1024, or

(B) The owner or operator shall eliminate the visual indications of liquids dripping.

(v) Each sensor as described in paragraph (e)(1)(iii) of this section is observed daily or is equipped with an alarm unless the agitator seal is located within the boundary of an unmanned plant site.

(vi) The owner or operator of each dual mechanical seal system shall meet the requirements specified in paragraphs (e)(1)(vi)(A) and (e)(1)(vi)(B).

(A) The owner or operator shall determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if, based on the criteria the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected and shall be repaired pursuant to § 63.1024, as applicable.

(B) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

(2) *No external shaft.* Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from paragraph (c) of this section.

(3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any agitator that is routed to a process or fuel gas system that captures and transports leakage from the agitator to a control device meeting the requirements of either § 63.1034 or § 63.1021(b) is exempt from the requirements of paragraph (c) of this section.

(4) *Unmanned plant site.* Any agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (c)(3) and (e)(1)(iv) of this section, and the daily requirements of paragraph (e)(1)(v) of this section, provided that each agitator is visually inspected as often as practical and at least monthly.

(5) *Difficult-to-monitor agitator seals.* Any agitator seal that is designated, as described in §63.1022(c)(2), as a difficult-to-monitor agitator seal is exempt from the requirements of paragraph (c) of this section and the owner or operator shall monitor the agitator seal according to the written plan specified in §63.1022(c)(4).

(6) *Equipment obstructions.* Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of paragraph (c) of this section.

(7) *Unsafe-to-monitor agitator seals.* Any agitator seal that is designated, as described in §63.1022(c)(1), as an unsafe-to-monitor agitator seal is exempt from the requirements of paragraph (c) of this section and the owner or operator of the agitator seal monitors the agitator seal according to the written plan specified in §63.1022(c)(4).

§63.1029 Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection*—(1) *Monitoring method.* Unless otherwise specified in §63.1021(b), §63.1036, or §63.1037, the owner or operator shall comply with paragraphs (b)(1) and (b)(2) of this section. Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems shall be monitored within 5 calendar days by the method specified in §63.1023(b) and, as applicable, §63.1023(c), if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in paragraph (c) of this section.

(2) *Instrument reading that defines a leak.* If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps in food and medical service, or 2,000 parts per million or greater for all other pumps (including pumps in food/medical service), or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured pursuant to paragraph (b)(1) of this section, a leak is detected and shall be repaired pursuant to §63.1024, as applicable.

(c) *Leak repair.* For equipment identified in paragraph (b) of this section that is not monitored by the method specified in §63.1023(b) and, as applicable, §63.1023(c), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

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§63.1030 Pressure relief devices in gas and vapor service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Compliance standard.* Except during pressure releases as provided for in paragraph (c) of this section, or as otherwise specified in §§63.1036, 63.1037, or paragraphs (d) and (e) of this section, each pressure relief device in gas and vapor service shall be operated with an instrument reading of less than 500 parts per million as measured by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(c) *Pressure relief requirements.* (1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release, except as provided in §63.1024(d).

(2) The pressure relief device shall be monitored no later than five calendar days after the pressure to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(3) The owner or operator shall record the dates and results of the monitoring required by paragraph (c)(2) of this section following a pressure release including the background level measured and the maximum instrument reading measured during the monitoring.

(d) *Pressure relief devices routed to a process or fuel gas system or equipped with a closed vent system and control device.* Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage from the pressure relief device to a control device meeting the requirements of § 63.1034 is exempt from the requirements of paragraphs (b) and (c) of this section.

(e) *Rupture disk exemption.* Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (b) and (c) of this section provided the owner or operator installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as provided in § 63.1024(d).

§ 63.1031 Compressors standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Seal system standard.* Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in §§ 63.1021(b), 63.1036, 63.1037, and paragraphs (e) and (f) of this section. Each compressor seal system shall meet the applicable requirements specified in paragraph (b)(1), (b)(2), or (b)(3) of this section.

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of startup, shutdown, or malfunction); or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either § 63.1034 or § 63.1021(b); or

(3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream.

(c) *Barrier fluid system.* The barrier fluid shall not be in light liquid service. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. Each sensor shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site.

(d) *Failure criterion and leak detection.* (1) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected and shall be repaired pursuant to § 63.1024, as applicable.

(2) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

(e) *Routed to a process or fuel gas system or equipped with a closed vent system.* A compressor is exempt from the requirements of paragraphs (b) through (d) of this section if it is equipped with a system to capture and transport leakage from the compressor drive shaft seal to a process or a fuel gas system or to a closed vent system that captures and transports leakage from the compressor to a control device meeting the requirements of either § 63.1034 or § 63.1021(b).

(f) *Alternative compressor standard.* (1) Any compressor that is designated, as described in § 63.1022(e), as operating with an instrument reading of less than 500 parts per million above background shall operate at all times with an instrument reading of less than 500 parts per million. A compressor so designated is exempt from the requirements of paragraphs (b) through (d) of this section if the compressor is demonstrated, initially upon designation, annually, and at other times requested by the Administrator to be operating with an instrument reading of less

than 500 parts per million above background, as measured by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c).

(2) The owner or operator shall record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test.

§ 63.1032 Sampling connection systems standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Equipment requirement.* Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as provided in §§ 63.1021(b), 63.1036, 63.1037, or paragraph (d) of this section. Gases displaced during filling of the sample container are not required to be collected or captured.

(c) *Equipment design and operation.* Each closed-purge, closed-loop, or closed vent system as required in paragraph (b) of this section shall meet the applicable requirements specified in paragraphs (c)(1) through (c)(5) of this section.

(1) The system shall return the purged process fluid directly to a process line or to a fuel gas system that meets the requirements of either § 63.1034 or § 63.1021(b); or

(2) [Reserved]

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that meets the requirements of either § 63.1034 or § 63.1021(b); or

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (c)(4)(i), (c)(4)(ii), or (c)(4)(iii) of this section.

(i) A waste management unit as defined in 40 CFR 63.111 or subpart G, if the waste management unit is subject to and operating in compliance with the provisions of 40 CFR part 63, subpart G, applicable to group 1 wastewater streams. If the purged process fluid does not contain any regulated material listed in Table 9 of 40 CFR part 63, subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, subpart G, applicable to group 1 wastewater steams provided the facility has a National Pollution Discharge Elimination System (NPDES) permit or sends the wastewater to an NPDES-permitted facility.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR parts 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(5) Containers that are part of a closed purge system must be covered or closed when not being filled or emptied.

(d) *In-situ sampling systems.* In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (b) and (c) of this section.

§ 63.1033 Open-ended valves or lines standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance date specified in the referencing subpart.

(b) *Equipment and operational requirements.* (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §§ 63.1021(b), 63.1036, 63.1037, and paragraphs (c) and (d) of this section. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of paragraphs (b)(2) and (b)(3) of this section also apply.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (b)(1) of this section at all other times.

(c) *Emergency shutdown exemption.* Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of paragraph (b) of this section.

(d) *Polymerizing materials exemption.* Open-ended valves or lines containing materials that would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraph (b) of this section are exempt from the requirements of paragraph (b) of this section.

§ 63.1034 Closed vent systems and control devices; or emissions routed to a fuel gas system or process standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance date specified in the referencing subpart.

(b) *Compliance standard.* (1) Owners or operators routing emissions from equipment leaks to a fuel gas system or process shall comply with the provisions of subpart SS of this part, except as provided in § 63.1002(b).

(2) Owners or operators of closed vent systems and control devices used to comply with the provisions of this subpart shall comply with the provisions of subpart SS of this part and (b)(2)(i) through (b)(2)(iii) of this section, except as provided in § 63.1002(b).

(i) Nonflare control devices shall be designed and operated to reduce emissions of regulated material vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume standard is not applicable to the provisions of § 63.1016.

(ii) Enclosed combustion devices shall be designed and operated to reduce emissions of regulated material vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C (1400 °F).

(iii) Flares used to comply with the provisions of this subpart shall comply with the requirements of subpart SS of this part.

§ 63.1035 Quality improvement program for pumps.

(a) *Criteria.* If, on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or affected facility (or plant site) or three pumps in a process unit or affected facility (or plant site) leak, the owner or operator shall comply with the requirements specified in paragraphs (a)(1) and (a)(2) of this section.

(1) Pumps that are in food and medical service or in polymerizing monomer service shall comply with all requirements except for those specified in paragraph (d)(8) of this section.

(2) Pumps that are not in food and medical or polymerizing monomer service shall comply with all of the requirements of this section.

(b) *Exiting the QIP.* The owner or operator shall comply with the requirements of this section until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit or affected facility (or plant site). Once the performance level is achieved, the owner or operator shall comply with the requirements in § 63.1026.

(c) *Resumption of QIP.* If, in a subsequent monitoring period, the process unit or affected facility (or plant site) has greater than either 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the owner or operator shall resume the quality improvement program starting at performance trials.

(d) *QIP requirements.* The quality improvement program shall meet the requirements specified in paragraphs (d)(1) through (d)(8) of this section.

(1) The owner or operator shall comply with the requirements in § 63.1026.

(2) *Data collection.* The owner or operator shall collect the data specified in paragraphs (d)(2)(i) through (d)(2)(v) of this section and maintain records for each pump in each process unit or affected facility (or plant site) subject to the quality improvement program. The

data may be collected and the records may be maintained on a process unit, affected facility, or plant site basis.

(i) Pump type (e.g., piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (e.g., external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed.

(ii) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.

(iii) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation.

(iv) If a leak is detected, the repair methods used and the instrument readings after repair.

(v) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units or affected facilities, a description of any maintenance or quality assurance programs used in the process unit or affected facility that are intended to improve emission performance.

(3) The owner or operator shall continue to collect data on the pumps as long as the process unit or affected facility (or plant site) remains in the quality improvement program.

(4) *Pump or pump seal inspection.* The owner or operator shall inspect all pumps or pump seals that exhibited frequent seal failures and were removed from the process unit or affected facility due to leaks. The inspection shall determine the probable cause of the pump seal failure or of the pump leak and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential.

(5)(i) *Data analysis.* The owner or operator shall analyze the data collected to comply with the requirements of paragraph (d)(2) of this section to determine the services, operating or maintenance practices, and pump or pump seal designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating conditions or maintenance practices, equipment design, or other process-specific factors.

(ii) The analysis shall also be used to determine if there are superior performing pump or pump seal technologies that are applicable to the service(s), operating conditions, or pump or pump seal designs associated with poorer than average emission performance. A superior performing pump or pump seal technology is one with a leak frequency of less than 10 percent for specific applications in the process unit, affected facility, or plant site. A candidate superior performing pump or pump seal technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 10 percent leaking pumps in the process unit or affected facility (or plant site).

(iii) The analysis shall include consideration of the information specified in paragraphs (d)(5)(iii)(A) through (d)(5)(iii)(C) of this section.

(A) The data obtained from the inspections of pumps and pump seals removed from the process unit or affected facility due to leaks;

(B) Information from the available literature and from the experience of other plant sites that will identify pump designs or technologies and operating conditions associated with low emission performance for specific services; and

(C) Information on limitations on the service conditions for the pump seal technology operating conditions as well as information on maintenance procedures to ensure continued low emission performance.

(iv) The data analysis may be conducted through an inter- or intra-company program (or through some combination of the two approaches) and may be for a single process unit, a plant site, a company, or a group of process units.

(v) The first analysis of the data shall be completed no later than 18 months after the start of the quality

improvement program. The first analysis shall be performed using data collected for a minimum of 6 months. An analysis of the data shall be done each year the process unit or affected facility is in the quality improvement program.

(6) *Trial evaluation program.* A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify use of superior performing pump seal technology or pumps that can be applied to the areas identified as having poorer than average performance, except as provided in paragraph (d)(6)(v) of this section. The trial program shall be used to evaluate the feasibility of using in the process unit or affected facility (or plant site) the pump designs or seal technologies, and operating and maintenance practices that have been identified by others as having low emission performance.

(i) The trial evaluation program shall include on-line trials of pump seal technologies or pump designs and operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 10 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing pump seal technologies or pumps is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in paragraph (e)(3)(ii) of this section.

(ii) The number of pump seal technologies or pumps in the trial evaluation program shall be the lesser of 1 percent or two pumps for programs involving single process units or affected facilities and the lesser of 1 percent or five pumps for programs involving a plant site or groups of process units or affected facilities. The minimum number of pumps or pump seal technologies in a trial program shall be one.

(iii) The trial evaluation program shall specify and include documentation of the information specified in paragraphs (d)(6)(iii)(A) through (d)(6)(iii)(D) of this section.

(A) The candidate superior performing pump seal designs or technologies to be evaluated, the stages for evaluating the identified candidate pump designs or pump seal technologies, including the time period necessary to test the applicability;

(B) The frequency of monitoring or inspection of the equipment;

(C) The range of operating conditions over which the component will be evaluated; and

(D) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps.

(iv) The performance trials shall initially be conducted, at least, for a 6-month period beginning not later than 18 months after the start of the quality improvement program. No later than 24 months after the start of the quality improvement program, the owner or operator shall have identified pump seal technologies or pump designs that, combined with appropriate process, operating, and maintenance practices, operate with low emission performance for specific applications in the process unit or affected facility. The owner or operator shall continue to conduct performance trials as long as no superior performing design or technology has been identified, except as provided in paragraph (d)(6)(vi) of this section. The initial list of superior emission performance pump designs or pump seal technologies shall be amended in the future, as appropriate, as additional information and experience are obtained.

(v) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 employees shall be exempt from trial evaluations of pump seals or pump designs. Plant sites exempt from the trial evaluations of pumps shall begin the pump seal or pump replacement program at the start of the fourth year of the quality improvement program.

(vi) An owner or operator who has conducted performance trials on all alternative superior emission performance technologies suitable for the required applications in the process unit or affected facility may stop conducting performance trials provided that a superior performing design or

technology has been demonstrated or there are no technically feasible alternative superior technologies remaining. The owner or operator shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.

(7) *Quality assurance program.* Each owner or operator shall prepare and implement a pump quality assurance program that details purchasing specifications and maintenance procedures for all pumps and pump seals in the process unit or affected facility. The quality assurance program may establish any number of categories, or classes, of pumps as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under paragraph (d)(5) of this section; and, if applicable, the findings of the trial evaluation required in paragraph (d)(6) of this section; and the operating conditions in the process unit or affected facility. The quality assurance program shall be updated each year as long as the process unit or affected facility has the greater of either 10 percent or more leaking pumps or has three leaking pumps.

(i) The quality assurance program shall meet the requirements specified in paragraphs (d)(7)(i)(A) through (d)(7)(i)(D) of this section.

(A) Establish minimum design standards for each category of pumps or pump seal technology. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters;

(B) Require that all equipment orders specify the design standard (or minimum tolerances) for the pump or the pump seal;

(C) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the owner or operator of the plant site or process unit or affected facility, or by a designated representative; and

(D) Detail off-line pump maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished pumps and pump seals will meet the design specifications for the pump category and will operate so that emissions are minimized.

(ii) The quality assurance program shall be established no later than the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees; and no later than the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees.

(8) *Pump or pump seal replacement.* Three years after the start of the quality improvement program for plant sites with 400 or more valves or 100 or more employees and at the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees, the owner or operator shall replace, as described in paragraphs (d)(8)(i) and (d)(8)(ii) of this section, the pumps or pump seals that are not superior emission performance technology with pumps or pump seals that have been identified as superior emission performance technology and that comply with the quality assurance standards for the pump category. Superior emission performance technology is that category or design of pumps or pump seals with emission performance that when combined with appropriate process, operating, and maintenance practices, will result in less than 10 percent leaking pumps for specific applications in the process unit, affected facility, or plant site. Superior emission performance technology includes material or design changes to the existing pump, pump seal, seal support system, installation of multiple mechanical seals or equivalent, or pump replacement.

(i) Pumps or pump seals shall be replaced at the rate of 20 percent per year based on the total number of

pumps in light liquid service. The calculated value shall be rounded to the nearest nonzero integer value. The minimum number of pumps or pump seals shall be one. Pump replacement shall continue until all pumps subject to the requirements of § 63.1026 are pumps determined to be superior performance technology.

(ii) The owner or operator may delay replacement of pump seals or pumps with superior technology until the next planned process unit or affected facility shutdown, provided the number of pump seals and pumps replaced is equivalent to the 20 percent or greater annual replacement rate.

(iii) The pumps shall be maintained as specified in the quality assurance program.

(e) *QIP recordkeeping.* In addition to the records required by paragraph (d)(2) of this section, the owner or operator shall maintain records for the period of the quality improvement program for the process unit or affected facility as specified in paragraphs (e)(1) through (e)(6) of this section.

(1) When using a pump quality improvement program as specified in this section, record the information specified in paragraphs (e)(1)(i) through (e)(1)(iii) of this section.

(i) The rolling average percent leaking pumps.

(ii) Documentation of all inspections conducted under the requirements of paragraph (d)(4) of this section, and any recommendations for design or specification changes to reduce leak frequency.

(iii) The beginning and ending dates while meeting the requirements of paragraph (d) of this section.

(2) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair.

(3) Records of all analyses required in paragraph (d) of this section. The records will include the information specified in paragraphs (e)(3)(i) through (e)(3)(iv) of this section.

(i) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices.

(ii) The reasons for rejecting specific candidate superior emission performing pump technology from performance trials.

(iii) The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under paragraph (d)(6)(iii) of this section.

(iv) The beginning date and duration of performance trials of each candidate superior emission performing technology.

(4) All records documenting the quality assurance program for pumps as specified in paragraph (d)(7) of this section, including records indicating that all pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance.

(5) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in paragraph (d)(8) of this section.

(6) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services.

§ 63.1036 Alternative means of emission limitation: Batch processes.

(a) *General requirement.* As an alternative to complying with the requirements of §§ 63.1025 through 63.1033 and § 63.1035, an owner or operator of a batch process that operates in regulated material service during the calendar year may comply with one of the standards specified in paragraphs (b) and (c) of this section, or the owner or operator may petition for approval of an alternative standard under the provisions of § 63.1021(b). The alternative standards of this section provide the options of pressure testing or monitoring the equipment for leaks. The owner or operator may switch among the alternatives provided the change is documented as specified in paragraph (b)(7) of this section.

(b) *Pressure testing of the batch equipment.* The following requirements shall be met if an owner or operator elects to use pressure testing of batch product-process equipment to demonstrate compliance with this subpart.

(1) *Reconfiguration.* Each time equipment is reconfigured for production of a different product or intermediate, the batch product-process equipment train shall be pressure-tested for leaks before regulated material is first fed to the equipment and the equipment is placed in regulated material service.

(i) When the batch product-process equipment train is reconfigured to produce a different product, pressure testing is required only for the new or disturbed equipment.

(ii) Each batch product process that operates in regulated material service during a calendar year shall be pressure-tested at least once during that calendar year.

(iii) Pressure testing is not required for routine seal breaks, such as changing hoses or filters, that are not part of the reconfiguration to produce a different product or intermediate.

(2) *Testing procedures.* The batch product process equipment shall be tested either using the procedures specified in paragraph (b)(5) of this section for pressure vacuum loss or with a liquid using the procedures specified in paragraph (b)(6) of this section.

(3) *Leak detection.* (i) For pressure or vacuum tests using a gas, a leak is detected if the rate of change in pressure is greater than 6.9 kilopascals (1 pound per square inch gauge) in 1 hour or if there is visible, audible, or olfactory evidence of fluid loss.

(ii) For pressure tests using a liquid, a leak is detected if there are indications of liquids dripping or if there is other evidence of fluid loss.

(4) *Leak repair.* (i) If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before start-up of the process.

(ii) If a batch product-process fails the retest (the second of two consecutive pressure tests), it shall be repaired as soon as practical, but not later than 30 calendar days after the second pressure test except as specified in paragraph (e) of this section.

(5) *Gas pressure test procedure for pressure or vacuum loss.* The procedures specified in paragraphs (b)(5)(i) through (b)(5)(v) of this section shall be used to pressure test batch product-process equipment for pressure or vacuum loss to demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section.

(i) The batch product-process equipment train shall be pressurized with a gas to a pressure less than the set pressure of any safety relief devices or valves or to a pressure slightly above the operating pressure of the equipment, or alternatively the equipment shall be placed under a vacuum.

(ii) Once the test pressure is obtained, the gas source or vacuum source shall be shut off.

(iii) The test shall continue for not less than 15 minutes unless it can be determined in a shorter period of time that the allowable rate of pressure drop or of pressure rise was exceeded. The pressure in the batch product-process equipment shall be measured after the gas or vacuum source is shut off and at the end of the test period. The rate of change in pressure in the batch product-process equipment shall be calculated using the following equation:

$$\Delta(P/t) = \left(\left|P_f - P_i\right|\right)/\left(t_f - t_i\right) \qquad \text{[Eq. 5]}$$

Where:

Δ (P/t) = Change in pressure, pounds per square inch gauge per hour.

P_f = Final pressure, pounds per square inch gauge.

P_i = Initial pressure, pounds per square inch gauge.

$t_f - t_i$ = Elapsed time, hours.

(iv) The pressure shall be measured using a pressure measurement device (gauge, manometer, or equivalent) that has a precision of ±2.5 millimeter mercury (0.10 inch of mercury) in the range of test pressure and is capable of measuring pressures up to the relief set pressure of the pressure relief device. If such a pressure measurement device is not reasonably available, the owner or operator shall use a pressure measurement device with a precision of at least ±10 percent of the test pressure of the equipment and shall extend the duration of the test for the time necessary to detect a pressure loss or rise that equals a rate of 1 pound per square inch gauge per hour (7 kilopascals per hour).

(v) An alternative procedure may be used for leak testing the equipment if the owner or operator demonstrates the alternative procedure is capable of detecting a pressure loss or rise.

(6) *Pressure test procedure using test liquid.* The procedures specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section shall be used to pressure-test batch product-process equipment using a liquid to demonstrate compliance with the requirements of paragraph (b)(3)(ii) of this section.

(i) The batch product-process equipment train, or section of the equipment train, shall be filled with the test liquid (e.g., water, alcohol) until normal operating pressure is obtained. Once the equipment is filled, the liquid source shall be shut off.

(ii) The test shall be conducted for a period of at least 60 minutes, unless it can be determined in a shorter period of time that the test is a failure.

(iii) Each seal in the equipment being tested shall be inspected for indications of liquid dripping or other indications of fluid loss. If there are any indications of liquids dripping or of fluid loss, a leak is detected.

(iv) An alternative procedure may be used for leak testing the equipment, if the owner or operator demonstrates the alternative procedure is capable of detecting losses of fluid.

(7) *Pressure testing recordkeeping.* The owner or operator of a batch product process who elects to pressure test the batch product process equipment train to demonstrate compliance with this subpart shall maintain records of the information specified in paragraphs (b)(7)(i) through (b)(7)(v) of this section.

(i) The identification of each product, or product code, produced during the calendar year. It is not necessary to identify individual items of equipment in a batch product process equipment train.

(ii) Physical tagging of the equipment to identify that it is in regulated material service and subject to the provisions of this subpart is not required. Equipment in a batch product process subject to the provisions of this subpart may be identified on a plant site plan, in log entries, or by other appropriate methods.

(iii) The dates of each pressure test required in paragraph (b) of this section, the test pressure, and the pressure drop observed during the test.

(iv) Records of any visible, audible, or olfactory evidence of fluid loss.

(v) When a batch product process equipment train does not pass two consecutive pressure tests, the information specified in paragraphs (b)(7)(v)(A) through (b)(7)(v)(E) of this section shall be recorded in a log and kept for 2 years:

(A) The date of each pressure test and the date of each leak repair attempt.

(B) Repair methods applied in each attempt to repair the leak.

(C) The reason for the delay of repair.

(D) The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment; and

(E) The date of successful repair.

(c) *Equipment monitoring.* The following requirements shall be met if an owner or operator elects to monitor the equipment in a batch process to detect leaks by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c), to demonstrate compliance with this subpart.

(1) The owner or operator shall comply with the requirements of §§ 63.1025 through 63.1035 as modified by paragraphs (c)(2) through (c)(4) of this section.

(2) The equipment shall be monitored for leaks by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c), when the equipment is in regulated material service or is in use with any other detectable material.

(3) The equipment shall be monitored for leaks as specified in paragraphs (c)(3)(i) through (c)(3)(iv) of this section.

(i) Each time the equipment is reconfigured for the production of a new product, the reconfigured equipment shall be monitored for leaks within 30 days of start-up of the process. This initial monitoring of reconfigured equipment shall not be included in determining percent leaking equipment in the process unit or affected facility.

(ii) Connectors shall be monitored in accordance with the requirements in § 63.1027.

(iii) Equipment other than connectors shall be monitored at the frequencies specified in table 1 to this subpart. The operating time shall be

determined as the proportion of the year the batch product-process that is subject to the provisions of this subpart is operating.

(iv) The monitoring frequencies specified in paragraph (c)(3)(iii) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor anytime during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. For example, if the equipment is not operating during the scheduled monitoring period, the monitoring can be done during the next period when the process is operating.

(4) If a leak is detected, it shall be repaired as soon as practical but not later than 15 calendar days after it is detected, except as provided in paragraph (e) of this section.

(d) *Added equipment recordkeeping.* (1) For batch product-process units or affected facilities that the owner or operator elects to monitor as provided under paragraph (c) of this section, the owner or operator shall prepare a list of equipment added to batch product process units or affected facilities since the last monitoring period required in paragraphs (c)(3)(ii) and (c)(3)(iii) of this section.

(2) Maintain records demonstrating the proportion of the time during the calendar year the equipment is in use in a batch process that is subject to the provisions of this subpart. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit or affected facility. These records are not required if the owner or operator does not adjust monitoring frequency by the time in use, as provided in paragraph (c)(3)(iii) of this section.

(3) Record and keep pursuant to the referencing subpart and this subpart, the date and results of the monitoring required in paragraph (c)(3)(i) of this section for equipment added to a batch product-process unit or affected facility since the last monitoring period required in paragraphs (c)(3)(ii) and (c)(3)(iii) of this section. If no leaking equipment is found during this monitoring, the owner or operator shall record that the inspection was performed. Records of the actual monitoring results are not required.

(e) *Delay of repair.* Delay of repair of equipment for which leaks have been detected is allowed if the replacement equipment is not available providing the conditions specified in paragraphs (e)(1) and (e)(2) of this section are met.

(1) Equipment supplies have been depleted and supplies had been sufficiently stocked before the supplies were depleted.

(2) The repair is made no later than 10 calendar days after delivery of the replacement equipment.

(f) *Periodic report contents.* For owners or operators electing to meet the requirements of paragraph (b) of this section, the Periodic Report to be filed pursuant to §63.1039(b) shall include the information listed in paragraphs (f)(1) through (f)(4) of this section for each process unit.

(1) Batch product process equipment train identification;

(2) The number of pressure tests conducted;

(3) The number of pressure tests where the equipment train failed the pressure test; and

(4) The facts that explain any delay of repairs.

§63.1037 Alternative means of emission limitation: Enclosed-vented process units or affected facilities.

(a) *Use of closed vent system and control device.* Process units or affected facilities or portions of process units at affected facilities enclosed in such a manner that all emissions from equipment leaks are vented through a closed vent system to a control device or routed to a fuel gas system or process meeting the requirements of §63.1034 are exempt from the requirements of §§63.1025 through 63.1033 and 63.1035. The enclosure shall be maintained under a negative pressure at all times while the process unit or affected facility is in operation to ensure that all emissions are routed to a control device.

(b) *Recordkeeping.* Owners and operators choosing to comply with the requirements of this section shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section.

(1) Identification of the process unit(s) or affected facilities and the regulated materials they handle.

(2) A schematic of the process unit or affected facility, enclosure, and closed vent system.

(3) A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device.

§ 63.1038 Recordkeeping requirements.

(a) *Recordkeeping system.* An owner or operator of more than one regulated source subject to the provisions of this subpart may comply with the recordkeeping requirements for these regulated sources in one recordkeeping system. The recordkeeping system shall identify each record by regulated source and the type of program being implemented (e.g., quarterly monitoring, quality improvement) for each type of equipment. The records required by this subpart are summarized in paragraphs (b) and (c) of this section.

(b) *General equipment leak records.* (1) As specified in § 63.1022(a) and (b), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation.

(2) The owner or operator shall keep a written plan as specified in § 63.1022(c)(4) for any equipment that is designated as unsafe- or difficult-to-monitor.

(3) The owner or operator shall maintain a record of the identity and an explanation as specified in § 63.1022(d)(2) for any equipment that is designated as unsafe-to-repair.

(4) As specified in § 63.1022(e), the owner or operator shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million.

(5) The owner or operator shall keep records associated with the determination that equipment is in heavy liquid service as specified in § 63.1022(f).

(6) The owner or operator shall keep records for leaking equipment as specified in § 63.1023(e)(2).

(7) The owner or operator shall keep records for leak repair as specified in § 63.1024(f) and records for delay of repair as specified in § 63.1024(d).

(c) *Specific equipment leak records.* (1) For valves, the owner or operator shall maintain the records specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

(i) The monitoring schedule for each process unit as specified in § 63.1025(b)(3)(vi).

(ii) The valve subgrouping records specified in § 63.1025(b)(4)(iv), if applicable.

(2) For pumps, the owner or operator shall maintain the records specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

(i) Documentation of pump visual inspections as specified in § 63.1026(b)(4).

(ii) Documentation of dual mechanical seal pump visual inspections as specified in § 63.1026(e)(1)(v).

(iii) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in § 63.1026(e)(1)(i).

(3) For connectors, the owner or operator shall maintain the monitoring schedule for each process unit as specified in § 63.1027(b)(3)(v).

(4) For agitators, the owner or operator shall maintain the following records:

(i) Documentation of agitator seal visual inspections as specified in § 63.1028; and

(ii) For the criteria as to the presence and frequency of drips for agitators, the owner or operator shall keep records of the design criteria and explanations and any changes and the reason for the changes, as specified in § 63.1028(e)(1)(vi).

(5) For pressure relief devices in gas and vapor or light liquid service, the owner or operator shall keep records of the dates and results of monitoring following a pressure release, as specified in § 63.1030(c)(3).

(6) For compressors, the owner or operator shall maintain the records specified in paragraphs (c)(6)(i) and (c)(6)(ii) of this section.

(i) For criteria as to failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes and the reason for the changes, as specified in § 63.1031(d)(2).

(ii) For compressors operating under the alternative compressor standard, record the dates and results of each compliance test as specified in § 63.1031(f)(2).

(7) For a pump QIP program, the owner or operator shall maintain the records specified in paragraphs (c)(7)(i) through (c)(7)(v) of this section.

(i) Individual pump records as specified in § 63.1035(d)(2).

(ii) Trial evaluation program documentation as specified in § 63.1035(d)(6)(iii).

(iii) Engineering evaluation documenting the basis for judgement that superior emission performance technology is not applicable as specified in § 63.1035(d)(6)(vi).

(iv) Quality assurance program documentation as specified in § 63.1035(d)(7).

(v) QIP records as specified in § 63.1035(e).

(8) For process units complying with the batch process unit alternative, the owner or operator shall maintain the records specified in paragraphs (c)(8)(i) and (c)(8)(ii) of this section.

(i) Pressure test records as specified in § 63.1036(b)(7).

(ii) Records for equipment added to the process unit as specified in § 63.1036(d).

(9) For process units complying with the enclosed-vented process unit alternative, the owner or operator shall maintain the records for enclosed-vented process units as specified in § 63.1037(b).

§ 63.1039 Reporting requirements.

(a) *Initial Compliance Status Report.* Each owner or operator shall submit an Initial Compliance Status Report according to the procedures in the referencing subpart. The notification shall include the information listed in paragraphs (a)(1) through (a)(3) of this section, as applicable.

(1) The notification shall provide the information listed in paragraphs (a)(1)(i) through (a)(1)(iv) of this section for each process unit or affected facility subject to the requirements of this subpart.

(i) Process unit or affected facility identification.

(ii) Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service.

(iii) Method of compliance with the standard (e.g., ''monthly leak detection and repair'' or ''equipped with dual mechanical seals'').

(iv) Planned schedule for requirements in §§ 63.1025 and 63.1026.

(2) The notification shall provide the information listed in paragraphs (a)(2)(i) and (a)(2)(ii) of this section for each process unit or affected facility subject to the requirements of § 63.1036(b).

(i) Batch products or product codes subject to the provisions of this subpart, and

(ii) Planned schedule for pressure testing when equipment is configured for production of products subject to the provisions of this subpart.

(3) The notification shall provide the information listed in paragraphs (a)(3)(i) and (a)(3)(ii) of this section for each process unit or affected facility subject to the requirements in § 63.1037.

(i) Process unit or affected facility identification.

(ii) A description of the system used to create a negative pressure in the enclosure and the control device used to comply with the requirements of § 63.1034 of this part.

(b) *Periodic Reports.* The owner or operator shall report the information specified in paragraphs (b)(1) through (b)(8) of this section, as applicable, in the Periodic Report specified in the referencing subpart.

(1) For the equipment specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section, report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by § 63.1024, and for

valves and connectors, identify the number of components that are determined by § 63.1025(c)(3) to be nonrepairable.

(i) Valves in gas and vapor service and in light liquid service pursuant to § 63.1025(b) and (c).

(ii) Pumps in light liquid service pursuant to § 63.1026(b) and (c).

(iii) Connectors in gas and vapor service and in light liquid service pursuant to § 63.1027(b) and (c).

(iv) Agitators in gas and vapor service and in light liquid service pursuant to § 63.1028(c).

(v) Compressors pursuant to § 63.1031(d).

(2) Where any delay of repair is utilized pursuant to § 63.1024(d), report that delay of repair has occurred and report the number of instances of delay of repair.

(3) If applicable, report the valve subgrouping information specified in § 63.1025(b)(4)(iv).

(4) For pressure relief devices in gas and vapor service pursuant to § 63.1030(b) and for compressors pursuant to § 63.1031(f) that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.

(5) Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to § 63.1025(b)(3)(i).

(6) Report, if applicable, the initiation of a quality improvement program for pumps pursuant to § 63.1035.

(7) Where the alternative means of emissions limitation for batch processes is utilized, report the information listed in § 63.1036(f).

(8) Report the information listed in paragraph (a) of this section for the Initial Compliance Status Report for process units or affected facilities with later compliance dates. Report any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.

TABLE 1 TO SUBPART UU OF PART 63—BATCH PROCESSES MONITORING FREQUENCY FOR EQUIPMENT OTHER THAN CONNECTORS

Operating time (% of year)	Equivalent continuous process monitoring frequency time in use		
	Monthly	Quarterly	Semiannually
0 to <25%	Quarterly	Annually	Annually.
25 to <50%	Quarterly	Semiannually	Annually.
50 to <75%	Bimonthly	Three times	Semiannually.
75 to 100%	Monthly	Quarterly	Semiannually.

Subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators

SOURCE: 61 FR 34195, July 1, 1996, unless otherwise noted.

§ 63.1040 Applicability.

The provisions of this subpart apply to the control of air emissions from oil-water separators and organic-water separators for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for oil-water separators and organic-water separators are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.1041 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this

subpart shall take precedence when implementing this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that, when the device is secured in the closed position, prevents or reduces air emissions to the atmosphere by blocking an opening in a fixed roof or floating roof. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Continuous seal means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a separator. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

Fixed roof means a cover that is mounted on a separator in a stationary position and does not move with fluctuations in the level of the liquid managed in the separator.

Floating roof means a pontoon-type or double-deck type cover that rests upon and is supported by the liquid managed in a separator.

Liquid-mounted seal means a foam- or liquid-filled continuous seal that is mounted between the wall of the separator and the floating roof, and the seal is in contact with the liquid in a separator.

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Metallic shoe seal means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the separator by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.1046(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in separators using air emission controls in accordance with the standards specified in this subpart.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Separator means a waste management unit, generally a tank, that is used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

[61 FR 34195, July 1, 1996, as amended at 64 FR 38991, July 20, 1999]

§ 63.1042 Standards—Separator fixed roof.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from an oil-water separator or organic-water separator using a fixed roof.

(b) The separator shall be equipped with a fixed roof designed to meet the following specifications:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the separator.

(2) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the separator wall.

(3) Each opening in the fixed roof shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.

(4) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid and its vapors managed in the separator; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the separator on which the fixed roof is installed.

(c) Whenever a regulated-material is in the separator, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(1) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the separator.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the pressure in vapor headspace underneath the fixed roof in accordance with the separator design specifications. The device shall be designed to operate with no detectable organic emissions, as determined using the procedure specified in § 63.1046(a) of this subpart, when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the pressure in the vapor headspace underneath the fixed roof is within the pressure operating range determined by the owner or operator based on the cover manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

(3) Opening of a safety device, as defined in § 63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the fixed roof and any closure devices in accordance with the requirements specified in § 63.1047(a) of this subpart.

§ 63.1043 Standards—Separator floating roof.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from an oil-water separator or organic-water separator using a floating roof.

(b) The separator shall be equipped with a floating roof designed to meet the following specifications:

(1) The floating roof shall be designed to float on the liquid surface during normal operations.

(2) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the separator and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(i) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in §63.1041 of this subpart. The total area of the gaps between the separator wall and the primary seal shall not exceed 67 square centimeters (cm^2) per meter of separator wall perimeter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm).

(ii) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the separator. The total area of the gaps between the separator wall and the secondary seal shall not exceed 6.7 square centimeters (cm^2) per meter of separator wall perimeter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(3) Except as provided for in paragraph (b)(4) of this section, each opening in the floating roof shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(4) The floating roof may be equipped with one or more emergency roof drains for removal of stormwater. Each emergency roof drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(c) Whenever a regulated-material is in the separator, the floating roof shall float on the liquid (i.e., off the roof supports) and each closure device shall be secured in the closed position except as follows:

(1) Opening of closure devices is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a safety device, as defined in §63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the floating roof in accordance with the procedures specified in §63.1047(b) of this subpart.

§63.1044 Standards—Separator vented to control device.

(a) This section applies to owners and operators controlling air emissions from an oil-water or organic-water separator using a fixed roof and venting the vapor headspace underneath the fixed roof through a closed-vent system to a control device.

(b) The separator shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the separator.

(2) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in

the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions, as determined using the procedure specified in § 63.1046(a) of this subpart.

(3) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the separator; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the separator on which the fixed roof is installed.

(4) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(c) Whenever a regulated-material is in the separator, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(1) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the separator.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a safety device, as defined in § 63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in § 63.1047(c) of this subpart.

§ 63.1045 Standards—Pressurized separator.

(a) This section applies to owners and operators controlling air emissions from an oil-water or organic-water separator that is pressurized and is operated as a closed-system.

(b) The pressurized separator must meet the following requirements.

(1) The separator must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the separator during operation of the separator at its design capacity.

(2) All separator openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in § 63.1046(a) of this subpart.

(3) Whenever a regulated-material is in the separator, the separator must be operated as a closed system that does not vent to the atmosphere except under either of the following conditions as specified in paragraph (b)(3)(i) or (b)(3)(ii) of this section.

(i) At those times when opening of a safety device, as defined in § 63.1041 of this subpart, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the separator is required, and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the applicable requirements of § 63.693.

[64 FR 38991, July 20, 1999, as amended at 66 FR 1268, Jan. 8, 2001]

§ 63.1046 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (a)(8)(i) or (a)(8)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (a)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (a)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (a)(9)(i) and (a)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic

emissions if the organic concentration value determined in paragraph (a)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (a)(8) is less than 10,000 ppmv.

(b) Procedure for performing floating roof seal gap measurements for the purpose of complying with this subpart.

(1) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually.

(2) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(3) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where 0.32-centimeter (cm) (⅛ inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the separator and measure the circumferential distance of each such location.

(4) For a seal gap measured under paragraph (b)(2) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the separator wall to the seal and multiplying each such width by its respective circumferential distance.

(5) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the separator basin. These total gap areas for the primary seal and secondary seal then are compared to the respective standards for the seal type as specified in § 63.1043(b)(2) of this subpart.

[61 FR 34195, July 1, 1996, as amended at 64 FR 38991, July 20, 1999]

§ 63.1047 Inspection and monitoring requirements.

(a) Owners and operators that use a separator equipped with a fixed roof in accordance with the provisions of § 63.1042 of this subpart shall meet the following requirements:

(1) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions to the atmosphere. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (e) of this section.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048(a)(2) of this subpart.

(b) Owners and operators that use a separator equipped with a floating roof in accordance with the provisions of § 63.1043 of this subpart shall meet the following requirements:

(1) The owner or operator shall measure the floating roof seal gaps using the procedure specified in § 63.1046(b) of this subpart in accordance with the following requirements:

(i) The owner or operator shall perform measurements of gaps between the separator wall and the primary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every 5 years.

(ii) The owner or operator shall perform measurements of gaps between the separator wall and the secondary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every year.

(iii) If a separator ceases to hold regulated-material for a period of 1 year or more, subsequent introduction of regulated-material into the separator

shall be considered an initial operation for the purpose of complying with paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(iv) In the event that the seal gap measurements do not conform to the specifications in § 63.1043(b)(2) of this subpart, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048 (a)(2) and (b) of this subpart.

(2) The owner or operator shall visually inspect the floating roof in accordance with the following requirements:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions to the atmosphere. Defects include, but are not limited to: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the separator; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform the inspections following installation of the floating roof and, thereafter, at least once every year.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048(a)(2) of this subpart.

(c) Owners and operators that use a separator equipped with a fixed roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.1044 of this subpart shall inspect the air emission control equipment as follows:

(1) The owner or operator shall visually inspect the fixed roof in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (e) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048(a)(2) of this subpart.

(2) The owner or operator shall inspect and monitor the closed-vent system and the control device in accordance with the requirements specified in § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(d) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (d)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the separator and no alternative treatment capacity is available at the facility site to accept the regulated-material normally treated in the separator. In this case, the owner or operator shall repair the defect at the next time the process or unit that is generating the regulated-material managed in the separator

stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(3) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.1048(a)(3) of this subpart.

(e) *Alternative inspection interval.* Following the initial inspection of a fixed roof in accordance with the applicable provisions of this section, subsequent inspection of the fixed roof may be performed at intervals longer than 1 year when an owner or operator determines that performing the required inspection would expose a worker to dangerous, hazardous, or otherwise unsafe conditions and the owner or operator complies with the requirements specified in paragraphs (e)(1) and (e)(2) of this section.

(1) The owner or operator must prepare and maintain at the plant site written documentation identifying the specific fixed roof designated as ''unsafe to inspect.'' The documentation must include for each fixed roof designated as such a written explanation of the reasons why the fixed roof is unsafe to inspect using the applicable procedures under this section.

(2) The owner or operator must develop and implement a written plan and schedule to inspect and monitor the fixed roof using the applicable procedures specified in this section during times when a worker can safely access the fixed roof. The required inspections and monitoring must be performed as frequently as practicable but do not need to be performed more frequently than the periodic schedule that would be otherwise applicable to the fixed roof under the provisions of this section. A copy of the written plan and schedule must be maintained at the plant site.

[61 FR 34195, July 1, 1996, as amended at 64 FR 38992, July 20, 1999]

§ 63.1048 Recordkeeping requirements.

(a) Each owner or operator shall prepare and maintain the following records:

(1) Documentation describing the design of each floating roof and fixed roof installed on a separator, as applicable to the separator. When a floating roof is used, the documentation shall include the dimensions of the separator bay or section in which the floating roof is installed.

(2) A record for each inspection required by § 63.1047 of this subpart that includes the following information: a separator identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by § 63.1047 of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.1047(d)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) Owners and operators that use a separator equipped with a floating roof in accordance with the provisions of § 63.1043 of this subpart shall prepare and maintain records for each inspection required by § 63.1047(b)(1) describing the results of the seal gap measurements. The records shall include the date of the measurements performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in § 63.1043(b)(2) of this subpart, the records shall include a description of the repairs that were made, the date the repairs were made, and the date the separator was emptied, if necessary.

(c) Owners and operators that use a separator equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.1044 of this subpart shall prepare and maintain the records required for the closed-vent system and control device in accordance with the requirements of § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

§ 63.1049 Reporting requirements.

(a) Owners and operators that use a separator equipped with a floating roof in accordance with the provisions of § 63.1043 of this subpart shall notify the Administrator at least 30 calendar days prior to each seal gap measurement inspection performed to comply with the requirements in § 63.1047(b)(1) of this subpart.

(b) Owners and operators that use a separator equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.1044 of this subpart shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

§ 63.1050 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.1040 and 63.1042 through 63.1045. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD of this part.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37355, June 23, 2003]

Subpart WW—National Emission Standards for Storage Vessels (Tanks)—Control Level 2

SOURCE: 64 FR 34918, June 29, 1999, unless otherwise noted.

§ 63.1060 Applicability.

The provisions of this subpart apply to the control of air emissions from storage vessels for which another subpart references the use of this subpart for such air emission control. These air emission standards for storage vessels are placed here for administrative convenience and only apply to those owners and operators of facilities subject to a referencing subpart. The provisions of subpart A (General Provisions) of this part do not apply to this subpart except as noted in the referencing subpart.

§ 63.1061 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in this section.

Capacity means the volume of liquid that is capable of being stored in a vessel, determined by multiplying the vessel's internal cross-sectional area by the internal height of the shell.

Deck cover means a device which covers an opening in a floating roof deck. Some deck covers move horizontally relative to the deck (i.e., a sliding cover).

Empty or *emptying* means the partial or complete removal of stored liquid from a storage vessel. Storage vessels that contain liquid only as wall or bottom clingage, or in pools due to bottom irregularities, are considered completely empty.

External floating roof or *EFR* means a floating roof located in a storage vessel without a fixed roof.

Fill or *filling* means the introduction of liquid into a storage vessel, but not necessarily to capacity.

Fixed roof means a roof that is mounted (i.e., permanently affixed) on a storage vessel and that does not move with fluctuations in stored liquid level.

Flexible fabric sleeve seal means a seal made of an elastomeric fabric (or other material) which covers an opening in a floating roof deck, and which allows the penetration of a fixed roof support column. The seal is attached to the rim of the deck opening and extends to the outer surface of the column. The seal is draped (but does not contact the stored liquid) to allow the horizontal movement of the deck relative to the column.

Floating roof means a roof that floats on the surface of the liquid in a storage vessel. A floating roof substantially covers the stored liquid surface (but is not necessarily in contact with the entire surface), and is comprised of a deck, a rim seal, and miscellaneous deck fittings.

Initial fill or *initial filling means* the first introduction of liquid into a storage vessel that is either newly constructed or has not been in liquid service for a year or longer.

Internal floating roof or *IFR* means a floating roof located in a storage vessel with a fixed roof. For the purposes of this subpart, an external floating roof located in a storage vessel to which a fixed roof has been added is considered to be an internal floating roof.

Liquid-mounted seal means a resilient or liquid-filled rim seal designed to contact the stored liquid.

Mechanical shoe seal or *metallic shoe seal* means a rim seal consisting of a band of metal (or other suitable material) as the sliding contact with the wall of the storage vessel, and a fabric seal to close the annular space between the band and the rim of the floating roof deck. The band is typically formed as a series of sheets (shoes) that are overlapped or joined together to form a ring. The lower end of the band extends into the stored liquid.

Pole float means a float located inside a guidepole that floats on the surface of the stored liquid. The rim of the float has a wiper or seal that extends to the inner surface of the pole.

Pole sleeve means a device which extends from either the cover or the rim of an opening in a floating roof deck to the outer surface of a pole that passes through the opening. The sleeve extends into the stored liquid.

Pole wiper means a seal that extends from either the cover or the rim of an opening in a floating roof deck to the outer surface of a pole that passes through the opening.

Referencing subpart means the subpart that refers an owner or operator to this subpart.

Rim seal means a device attached to the rim of a floating roof deck that spans the annular space between the deck and the wall of the storage vessel. When a floating roof has only one such device, it is a primary seal; when there are two seals (one mounted above the other), the lower seal is the primary seal and the upper seal is the secondary seal.

Slotted guidepole means a guidepole or gaugepole that has slots or holes through the wall of the pole. The slots or holes allow the stored liquid to flow into the pole at liquid levels above the lowest operating level.

Storage vessel or *Tank* means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Vapor-mounted seal means a rim seal designed not to be in contact with the stored liquid. Vapor-mounted seals may include, but are not limited to, resilient seals and flexible wiper seals.

§ 63.1062 Storage vessel control requirements.

(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with one of the requirements listed in paragraphs (a)(1) through (a)(3) of this section.

(1) Operate and maintain an IFR.

(2) Operate and maintain an EFR.

(3) *Equivalent requirements.* Comply with an equivalent to the requirements

in paragraph (a)(1) or (a)(2) of this section, as provided in § 63.1064.

(b) [Reserved]

§ 63.1063 Floating roof requirements.

The owner or operator who elects to use a floating roof to comply with the requirements of § 63.1062 shall comply with the requirements in paragraphs (a) through (e) of this section.

(a) *Design requirements*—(1) *Rim seals.* (i) *Internal floating roof.* An IFR shall be equipped with one of the seal configurations listed in paragraphs (a)(1)(i)(A) through (a)(1)(i)(C) of this section.

(A) A liquid-mounted seal.

(B) A mechanical shoe seal.

(C) Two seals mounted one above the other. The lower seal may be vapor-mounted.

(D) If the IFR is equipped with a vapor-mounted seal as of the proposal date for a referencing subpart, paragraphs (a)(1)(i)(A) through (a)(1)(i)(C) of this section do not apply until the next time the storage vessel is completely emptied and degassed, or 10 years after promulgation of the referencing subpart, whichever occurs first.

(ii) *External floating roof.* An EFR shall be equipped with one of the seal configurations listed in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section.

(A) A liquid-mounted seal and a secondary seal.

(B) A mechanical shoe seal and a secondary seal. The upper end of the shoe(s) shall extend a minimum of 61 centimeters (24 inches) above the stored liquid surface.

(C) If the EFR is equipped with a liquid-mounted seal or mechanical shoe seal, or a vapor-mounted seal and secondary seal, as of the proposal date for a referencing subpart, the seal options specified in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section do not apply until the next time the storage vessel is completely emptied and degassed, or 10 years after the promulgation date of the referencing subpart, whichever occurs first.

(2) *Deck fittings.* Openings through the deck of the floating roof shall be equipped as described in paragraphs (a)(2)(i) through (a)(2)(viii) of this section.

(i) Each opening except those for automatic bleeder vents (vacuum breaker vents) and rim space vents shall have its lower edge below the surface of the stored liquid.

(ii) Each opening except those for automatic bleeder vents (vacuum breaker vents), rim space vents, leg sleeves, and deck drains shall be equipped with a deck cover. The deck cover shall be equipped with a gasket between the cover and the deck.

(iii) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be equipped with a gasketed lid, pallet, flapper, or other closure device.

(iv) Each opening for a fixed roof support column may be equipped with a flexible fabric sleeve seal instead of a deck cover.

(v) Each opening for a sample well or deck drain (that empties into the stored liquid) may be equipped with a slit fabric seal or similar device that covers at least 90 percent of the opening, instead of a deck cover.

(vi) Each cover on access hatches and gauge float wells shall be designed to be bolted or fastened when closed.

(vii) Each opening for an unslotted guidepole shall be equipped with a pole wiper, and each unslotted guidepole shall be equipped with a gasketed cap on the top of the guidepole.

(viii) Each opening for a slotted guidepole shall be equipped with one of the control device configurations specified in paragraphs (a)(2)(viii)(A) and (a)(2)(viii)(B) of this section.

(A) A pole wiper and a pole float. The wiper or seal of the pole float shall be at or above the height of the pole wiper.

(B) A pole wiper and a pole sleeve.

(ix) If the floating roof does not meet the requirements listed in paragraphs (a)(2)(i) through (a)(2)(viii) of this section as of the proposal date of the referencing subpart, these requirements do not apply until the next time the vessel is completely emptied and degassed, or 10 years after the promulgation date of the referencing subpart, whichever occurs first.

(b) *Operational requirements.* (1) The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg

supports or other support devices (e.g., hangers from the fixed roof).

(2) When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof, the process of filling to the point of refloating the floating roof shall be continuous and shall be performed as soon as practical.

(3) Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access.

(4) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design.

(5) Each unslotted guidepole cap shall be closed at all times except when gauging the liquid level or taking liquid samples.

(c) *Inspection frequency requirements*—(1) *Internal floating roofs.* Internal floating roofs shall be inspected as specified in paragraph (d)(1) of this section before the initial filling of the storage vessel. Subsequent inspections shall be performed as specified in paragraph (c)(1)(i) or (c)(1)(ii) of this section.

(i) Internal floating roofs shall be inspected as specified in paragraphs (c)(1)(i)(A) and (c)(1)(i)(B) of this section.

(A) At least once per year the IFR shall be inspected as specified in paragraph (d)(2) of this section.

(B) Each time the storage vessel is completely emptied and degassed, or every 10 years, whichever occurs first, the IFR shall be inspected as specified in paragraph (d)(1) of this section.

(ii) Instead of the inspection frequency specified in paragraph (c)(1)(i) of this section, internal floating roofs with two rim seals may be inspected as specified in paragraph (d)(1) of this section each time the storage vessel is completely emptied and degassed, or every 5 years, whichever occurs first.

(2) *External floating roofs.* External floating roofs shall be inspected as specified in paragraphs (c)(2)(i) through (c)(2)(iv) of this section.

(i) Within 90 days after the initial filling of the storage vessel, the primary and secondary rim seals shall be inspected as specified in paragraph (d)(3) of this section.

(ii) The secondary seal shall be inspected at least once every year, and the primary seal shall be inspected at least every 5 years, as specified in paragraph (d)(3) of this section.

(iii) Each time the storage vessel is completely emptied and degassed, or every 10 years, whichever occurs first, the EFR shall be inspected as specified in paragraph (d)(1) of this section.

(iv) If the owner or operator determines that it is unsafe to perform the floating roof inspections specified in paragraphs (c)(2)(i) and (c)(2)(ii) of this section, the owner or operator shall comply with the requirements of paragraph (c)(2)(iv)(A) or (c)(2)(iv)(B) of this section.

(A) The inspections shall be performed no later than 30 days after the determination that the floating roof is unsafe.

(B) The storage vessel shall be removed from liquid service no later than 45 days after determining the floating roof is unsafe. If the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional days each. If the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include an explanation of why it was unsafe to perform the inspection, documentation that alternative storage capacity is unavailable, and a schedule of actions that will ensure that the vessel will be emptied as soon as practical.

(d) *Inspection procedure requirements.* Floating roof inspections shall be conducted as specified in paragraphs (d)(1) through (d)(3) of this section, as applicable. If a floating roof fails an inspection, the owner or operator shall comply with the repair requirements of paragraph (e) of this section.

(1) Floating roof (IFR and EFR) inspections shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seals from within the storage vessel. The inspection may be performed entirely from the top side of the floating roof, as long as

there is visual access to all deck components specified in paragraph (a) of this section. Any of the conditions described in paragraphs (d)(1)(i) through (d)(1)(v) of this section constitutes inspection failure.

(i) Stored liquid on the floating roof.

(ii) Holes or tears in the primary or secondary seal (if one is present).

(iii) Floating roof deck, deck fittings, or rim seals that are not functioning as designed (as specified in paragraph (a) of this section).

(iv) Failure to comply with the operational requirements of paragraph (b) of this section.

(v) Gaps of more than 0.32 centimeters (⅛ inch) between any deck fitting gasket, seal, or wiper (required by paragraph (a) of this section) and any surface that it is intended to seal.

(2) Tank-top inspections of IFR's shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seal through openings in the fixed roof. Any of the conditions described in paragraphs (d)(1)(i) through (d)(1)(iv) of this section constitutes inspection failure. Identification of holes or tears in the rim seal is required only for the seal that is visible from the top of the storage vessel.

(3) Seal gap inspections for EFR's shall determine the presence and size of gaps between the rim seals and the wall of the storage vessel by the procedures specified in paragraph (d)(3)(i) of this section. Any exceedance of the gap requirements specified in paragraphs (d)(3)(ii) and (d)(3)(iii) of this section constitutes inspection failure.

(i) Rim seals shall be measured for gaps at one or more levels while the EFR is floating, as specified in paragraphs (d)(3)(i)(A) through (d)(3)(i)(F) of this section.

(A) The inspector shall hold a 0.32 centimeter (⅛ inch) diameter probe vertically against the inside of the storage vessel wall, just above the rim seal, and attempt to slide the probe down between the seal and the vessel wall. Each location where the probe passes freely (without forcing or binding against the seal) between the seal and the vessel wall constitutes a gap.

(B) The length of each gap shall be determined by inserting the probe into the gap (vertically) and sliding the probe along the vessel wall in each direction as far as it will travel freely without binding between the seal and the vessel wall. The circumferential length along which the probe can move freely is the gap length.

(C) The maximum width of each gap shall be determined by inserting probes of various diameters between the seal and the vessel wall. The smallest probe diameter should be 0.32 centimeter, and larger probes should have diameters in increments of 0.32 centimeter. The diameter of the largest probe that can be inserted freely anywhere along the length of the gap is the maximum gap width.

(D) The average width of each gap shall be determined by averaging the minimum gap width (0.32 centimeter) and the maximum gap width.

(E) The area of a gap is the product of the gap length and average gap width.

(F) The ratio of accumulated area of rim seal gaps to storage vessel diameter shall be determined by adding the area of each gap, and dividing the sum by the nominal diameter of the storage vessel. This ratio shall be determined separately for primary and secondary rim seals.

(ii) The ratio of seal gap area to vessel diameter for the primary seal shall not exceed 212 square centimeters per meter of vessel diameter (10 square inches per foot of vessel diameter), and the maximum gap width shall not exceed 3.81 centimeters (1.5 inches).

(iii) The ratio of seal gap area to vessel diameter for the secondary seal shall not exceed 21.2 square centimeters per meter (1 square inch per foot), and the maximum gap width shall not exceed 1.27 centimeters (0.5 inches), except when the secondary seal must be pulled back or removed to inspect the primary seal.

(e) *Repair requirements.* Conditions causing inspection failures under paragraph (d) of this section shall be repaired as specified in paragraph (e)(1) or (e)(2) of this section.

(1) If the inspection is performed while the storage vessel is not storing liquid, repairs shall be completed before the refilling of the storage vessel with liquid.

(2) If the inspection is performed while the storage vessel is storing liquid, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the owner or operator may use up to 2 extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be completely emptied as soon as practical.

§ 63.1064 Alternative means of emission limitation.

(a) An alternate control device may be substituted for a control device specified in § 63.1063 if the alternate device has an emission factor less than or equal to the emission factor for the device specified in § 63.1063. Requests for the use of alternate devices shall be made as specified in § 63.1066(b)(3). Emission factors for the devices specified in § 63.1063 are published in EPA Report No. AP–42, Compilation of Air Pollutant Emission Factors.

(b) Tests to determine emission factors for an alternate device shall accurately simulate conditions under which the device will operate, such as wind, temperature, and barometric pressure. Test methods that can be used to perform the testing required in this paragraph include, but are not limited to, the methods listed in paragraphs (b)(1) through (b)(3) of this section.

(1) American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 19, Section 3, Part A, Wind Tunnel Test Method for the Measurement of Deck-Fitting Loss Factors for External Floating-Roof Tanks.

(2) API Manual of Petroleum Measurement Standards, Chapter 19, Section 3, Part B, Air Concentration Test Method for the Measurement of Rim Seal Loss Factors for Floating-Roof Tanks.

(3) API Manual of Petroleum Measurement Standards, Chapter 19, Section 3, Part E, Weight Loss Test Method for the Measurement of Deck-Fitting Loss Factors for Internal Floating-Roof Tanks.

(c) An alternate combination of control devices may be substituted for any combination of rim seal and deck fitting control devices specified in § 63.1063 if the alternate combination emits no more than the combination specified in § 63.1063. The emissions from an alternate combination of control devices shall be determined using AP–42 or as specified in paragraph (b) of this section. The emissions from a combination of control devices specified in § 63.1063 shall be determined using AP–42. Requests for the use of alternate devices shall be made as specified in § 63.1066(b)(3).

§ 63.1065 Recordkeeping requirements.

The owner or operator shall keep the records required in paragraph (a) of this section for as long as liquid is stored. Records required in paragraphs (b), (c) and (d) of this section shall be kept for at least 5 years. Records shall be kept in such a manner that they can be readily accessed within 24 hours. Records may be kept in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(a) *Vessel dimensions and capacity.* A record shall be kept of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.

(b) *Inspection results.* Records of floating roof inspection results shall be kept as specified in paragraphs (b)(1) and (b)(2) of this section.

(1) If the floating roof passes inspection, a record shall be kept that includes the information specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section. If the floating roof fails inspection, a record shall be kept that includes the information specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section.

(i) Identification of the storage vessel that was inspected.

(ii) The date of the inspection.

(iii) A description of all inspection failures.

(iv) A description of all repairs and the dates they were made.

(v) The date the storage vessel was removed from service, if applicable.

(2) A record shall be kept of EFR seal gap measurements, including the raw data obtained and any calculations performed.

(c) *Floating roof landings.* The owner or operator shall keep a record of the date when a floating roof is set on its legs or other support devices. The owner or operator shall also keep a record of the date when the roof was refloated, and the record shall indicate whether the process of refloating was continuous.

(d) An owner or operator who elects to use an extension in accordance with § 63.1063(e)(2) or § 63.1063(c)(2)(iv)(B) shall keep the documentation required by those paragraphs.

§ 63.1066 Reporting requirements.

(a) *Notification of initial startup.* If the referencing subpart requires that a notification of initial startup be filed, then the content of the notification of initial startup shall include (at a minimum) the information specified in the referencing subpart and the information specified in paragraphs (a)(1) and (a)(2) of this section.

(1) The identification of each storage vessel, its capacity and the liquid stored in the storage vessel.

(2) A statement of whether the owner or operator of the source can achieve compliance by the compliance date specified in referencing subpart.

(b) *Periodic reports.* Report the information specified in paragraphs (b)(1) through (b)(4) of this section, as applicable, in the periodic report specified in the referencing subpart.

(1) *Notification of inspection.* To provide the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator at least 30 days before an inspection required by §§ 63.1063(d)(1) or (d)(3). If an inspection is unplanned and the owner or operator could not have known about the inspection 30 days in advance, then the owner or operator shall notify the Administrator at least 7 days before the inspection. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 days before the inspection. If a delegated State or local agency is notified, the owner or operator is not required to notify the Administrator. A delegated State or local agency may waive the requirement for notification of inspections.

(2) *Inspection results.* The owner or operator shall submit a copy of the inspection record (required in § 63.1065) when inspection failures occur.

(3) *Requests for alternate devices.* The owner or operator requesting the use of an alternate control device shall submit a written application including emissions test results and an analysis demonstrating that the alternate device has an emission factor that is less than or equal to the device specified in § 63.1063.

(4) Requests for extensions. An owner or operator who elects to use an extension in accordance with § 63.1063(e)(2) or § 63.1063(c)(2)(iv)(B) shall submit the documentation required by those paragraphs.

§ 63.1067 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a 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 paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the nonopacity emissions standards in §§ 63.1062 and 63.1063(a) and (b) for alternative means of emission limitation, under § 63.6(g).

(2) [Reserved]

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

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

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

[67 FR 46279, July 12, 2002]

Subpart XX—National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations

SOURCE: 67 FR 46271, July 12, 2002, unless otherwise noted.

INTRODUCTION

§ 63.1080 What is the purpose of this subpart?

This subpart establishes requirements for controlling emissions of hazardous air pollutants (HAP) from heat exchange systems and waste streams at new and existing ethylene production units.

§ 63.1081 When must I comply with the requirements of this subpart?

You must comply with the requirements of this subpart according to the schedule specified in § 63.1102(a). Each heat exchange system which is part of an ethylene production affected source also must comply with paragraph (a) of this section. Each waste stream which is part of an ethylene production affected source also must comply with paragraph (b) of this section.

(a) Each heat exchange system that is part of an ethylene production affected source that commenced construction or reconstruction on or before October 9, 2019, must be in compliance with the heat exchange system requirements specified in §§ 63.1084(f), 63.1085(e) and (f), 63.1086(e), 63.1087(c) and (d), 63.1088(d), and 63.1089(d) and (e) upon initial startup or July 6, 2023, whichever is later. Each heat exchange system that is part of an ethylene production affected source that commences construction or reconstruction after October 9, 2019, must be in compliance with the heat exchange system requirements specified in §§ 63.1084(f), 63.1085(e) and (f), 63.1086(e), 63.1087(c) and (d), 63.1088(d), and 63.1089(d) and (e) upon initial startup, or July 6, 2020, whichever is later.

(b) Each waste stream that is part of an ethylene production affected source that commenced construction or reconstruction on or before October 9, 2019, must be in compliance with the flare requirements specified in § 63.1095(a)(1)(vi) and (b)(3) upon initial startup or July 6, 2023, whichever is later. Each waste stream that is part of an ethylene production affected source that commences construction or reconstruction after October 9, 2019, must be in compliance with the flare requirements specified in § 63.1095(a)(1)(vi) and (b)(3) upon initial startup, or July 6, 2020, whichever is later.

[85 FR 40419, July 2, 2020]

DEFINITIONS

§ 63.1082 What definitions do I need to know?

(a) Unless defined in paragraph (b) of this section, definitions for terms used in this subpart are provided in the Clean Air Act, § 63.1103(e), and 40 CFR 61.341.

(b) The following definitions apply to terms used in this subpart:

Continuous butadiene waste stream means the continuously flowing process wastewater from the following equipment: The aqueous drain from the debutanizer reflux drum, water separators on the C4 crude butadiene transfer piping, and the C4 butadiene storage equipment; and spent wash water from the C4 crude butadiene carbonyl wash system. The continuous butadiene waste stream does not include butadiene streams generated from sampling, maintenance activities, or shutdown purges. The continuous butadiene waste stream does not include butadiene streams from equipment that is currently an affected source subject to the control requirements of another NESHAP. The continuous butadiene waste stream contains less than 10 parts per million by weight (ppmw) of benzene.

Dilution steam blowdown waste stream means any continuously flowing process wastewater stream resulting from the quench and compression of cracked gas (the cracking furnace effluent) at an ethylene production unit and is discharged from the unit. This stream typically includes the aqueous or oily-water stream that results from condensation of dilution steam (in the cracking furnace quench system), blowdown from dilution steam generation systems, and aqueous streams separated from the process between the cracking furnace and the cracked gas dehydrators. The dilution steam blowdown waste stream does not include blowdown that has not contacted HAP-containing process materials. Before July 6, 2023, the dilution steam blowdown waste stream does not include dilution steam blowdown streams generated from sampling, maintenance activities, or shutdown purges. Beginning on July 6, 2023, the dilution steam blowdown streams generated from sampling, maintenance activities, or shutdown purges are included in the definition of dilution steam blowdown waste stream.

Heat exchange system means any cooling tower system or once-through cooling water system (e.g., river or pond water). A heat exchange system can include more than one heat exchanger and can include an entire recirculating or once-through cooling system.

Process wastewater means water which comes in contact with benzene or butadiene during manufacturing or processing operations conducted within an ethylene production unit. Process wastewater is not organic wastes, process fluids, product tank drawdown, cooling water blowdown, steam trap condensate, or landfill leachate. Process wastewater includes direct-contact cooling water.

Spent caustic waste stream means the continuously flowing process wastewater stream that results from the use of a caustic wash system in an ethylene production unit. A caustic wash system is commonly used at ethylene production units to remove acid gases and sulfur compounds from process streams, typically cracked gas. Before July 6, 2023, the spent caustic waste stream does not include spent caustic streams generated from sampling, maintenance activities, or shutdown purges. Beginning on July 6, 2023, the spent caustic streams generated from sampling, maintenance activities, or shutdown purges are included in the definition of spent caustic waste stream.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40419, July 6, 2020]

APPLICABILITY FOR HEAT EXCHANGE SYSTEMS

§ 63.1083 Does this subpart apply to my heat exchange system?

The provisions of this subpart apply to your heat exchange system if you own or operate an ethylene production unit expressly referenced to this subpart XX from subpart YY of this part. The provisions of subpart A (General Provisions) of this part do not apply to this subpart except as specified in subpart YY of this part.

§ 63.1084 What heat exchange systems are exempt from the requirements of this subpart?

Except as specified in paragraph (f) of this section, your heat exchange system is exempt from the requirements in §§ 63.1085 and 63.1086 if it meets any one of the criteria in paragraphs (a) through (e) of this section.

(a) Your heat exchange system operates with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side.

(b) Your heat exchange system contains an intervening cooling fluid, containing less than 5 percent by weight of total HAP listed in Table 1 to this subpart, between the process and the cooling water. This intervening fluid must serve to isolate the cooling water from the process fluid and must not be sent through a cooling tower or discharged. For purposes of this section, discharge does not include emptying for maintenance purposes.

(c) The once-through heat exchange system is subject to a National Pollution Discharge Elimination System (NPDES) permit with an allowable discharge limit of 1 part per million by volume (ppmv) or less above influent concentration, or 10 percent or less

above influent concentration, whichever is greater.

(d) Your once-through heat exchange system is subject to a NPDES permit that meets all of the conditions in paragraphs (d)(1) through (4) of this section.

(1) The permit requires monitoring of a parameter or condition to detect a leak of process fluids to cooling water.

(2) The permit specifies the normal range of the parameter or condition.

(3) The permit requires monthly or more frequent monitoring for the parameters selected as leak indicators.

(4) The permit requires you to report and correct leaks to the cooling water when the parameter or condition exceeds the normal range.

(e) Your recirculating or once-through heat exchange system cools process fluids that contain less than 5 percent by weight of total HAP listed in Table 1 to this subpart.

(f) Beginning no later than the compliance dates specified in §63.1081(a), your heat exchange system is no longer exempt from the requirements in §§63.1085 and 63.1086 if it meets the criteria in paragraph (c) or (d) of this section; instead, your heat exchange system is exempt from the requirements in §§63.1085 and 63.1086 if it meets any one of the criteria in paragraph (a), (b), or (e) of this section.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40419, July 6, 2020]

HEAT EXCHANGE SYSTEM REQUIREMENTS

§63.1085 What are the general requirements for heat exchange systems?

Unless you meet one of the requirements for exemptions in §63.1084, you must meet the requirements in paragraphs (a) through (f) of this section.

(a) Except as specified in paragraph (e) of this section, you must monitor the cooling water for the presence of substances that indicate a leak according to §63.1086(a) through (d).

(b) Except as specified in paragraph (f) of this section, if you detect a leak, then you must repair it according to §63.1087(a) and (b) unless repair is delayed according to §63.1088(a) through (c).

(c) Keep the records specified in §63.1089.

(d) Submit the reports specified in §63.1090.

(e) Beginning no later than the compliance dates specified in §63.1081(a), the requirements specified in §63.1086(a) through (d) no longer apply; instead, you must monitor the cooling water for the presence of total strippable hydrocarbons that indicate a leak according to §63.1086(e). At any time before the compliance dates specified in §63.1081(a), you may choose to comply with the requirements in this paragraph in lieu of the requirements in paragraph (a) of this section.

(f) Beginning no later than the compliance dates specified in §63.1081(a), the requirements specified in §§63.1087(a) and (b) and 63.1088(a) through (c), no longer apply; instead, if you detect a leak, then you must repair it according to §63.1087(c) and (d), unless repair is delayed according to §63.1088(d). At any time before the compliance dates specified in §63.1081(a), you may choose to comply with the requirements in this paragraph in lieu of the requirements in paragraph (b) of this section.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40419, July 6, 2020]

MONITORING REQUIREMENTS FOR HEAT EXCHANGE SYSTEMS

§63.1086 How must I monitor for leaks to cooling water?

Except as specified in §63.1085(e) and paragraph (e) of this section, you must monitor for leaks to cooling water by monitoring each heat exchange system according to the requirements of paragraph (a) of this section, monitoring each heat exchanger according to the requirements of paragraph (b) of this section, or monitoring a surrogate parameter according to the requirements of paragraph (c) of this section. Except as specified in §63.1085(e) and paragraph (e) of this section, if you elect to comply with the requirements of paragraph (a) or (b) of this section, you may use alternatives in paragraph (d)(1) or (2) of this section for determining the mean entrance concentration.

(a) *Heat exchange system.* Monitor cooling water in each heat exchange system for the HAP listed in Table 1 to this subpart (either total or speciated)

or other representative substances (e.g., total organic carbon or volatile organic compounds (VOC)) that indicate the presence of a leak according to the requirements in paragraphs (a)(1) through (5) of this section.

(1) You define the equipment that comprises each heat exchange system. For the purposes of implementing paragraph (a) of this section, a heat exchange system may consist of an entire heat exchange system or any combinations of heat exchangers such that, based on the rate of cooling water at the entrance and exit to each heat exchange system and the sensitivity of the test method being used, a leak of 3.06 kg/hr or greater of the HAP in Table 1 to this subpart would be detected. For example, if the test you decide to use has a sensitivity of 1 ppmv for total HAP, you must define the heat exchange system so that the cooling water flow rate is 51,031 liters per minute or less so that a leak of 3.06 kg/hr can be detected.

(2) Monitoring periods. For existing sources, monitor cooling water as specified in paragraph (a)(2)(i) of this section. Monitor heat exchange systems at new sources according to the specifications in paragraph (a)(2)(ii) of this section.

(i) Monitor monthly for 6 months, both initially and following completion of a leak repair. Then monitor as provided in either paragraph (a)(2)(i)(A) or (a)(2)(i)(B) of this section, as appropriate.

(A) If no leaks are detected by monitoring monthly for a 6-month period, monitor quarterly thereafter until a leak is detected.

(B) If a leak is detected, monitor monthly until the leak has been repaired. Upon completion of repair, monitor according to the specifications in paragraph (a)(2)(i) of this section.

(ii) Monitor weekly for 6 months, both initially and following completion of a leak repair. Then monitor as provided in paragraph (a)(2)(ii)(A) or (B) of this section, as appropriate.

(A) If no leaks are detected by monitoring weekly for a 6-month period, monitor monthly thereafter until a leak is detected.

(B) If a leak is detected, monitor weekly until the leak has been repaired. Upon completion of the repair, monitor according to the specifications in paragraph (a)(2)(ii) of this section.

(3) Determine the concentration of the monitored substance in the heat exchange system cooling water using any method listed in 40 CFR part 136. Use the same method for both entrance and exit samples. You may validate 40 CFR part 136 methods for the HAP listed in Table 1 to this subpart according to the procedures in appendix D to this part. Alternative methods may be used upon approval by the Administrator.

(4) Take a minimum of three sets of samples at each entrance and exit.

(5) Calculate the average entrance and exit concentrations, correcting for the addition of make-up water and evaporative losses, if applicable. Using a one-sided statistical procedure at the 0.05 level of significance, if the exit mean concentration is at least 10 percent greater than the entrance mean of the HAP (total or speciated) in Table 1 to this subpart or other representative substance, and the leak is at least 3.06 kg/hr, you have detected a leak.

(b) *Individual heat exchangers.* Monitor the cooling water at the entrance and exit of each heat exchanger for the HAP in Table 1 to this subpart (either total or speciated) or other representative substances (e.g., total organic carbon or VOC) that indicate the presence of a leak in a heat exchanger according to the requirements in paragraphs (b)(1) through (4) of this section.

(1) Monitoring periods. For existing sources, monitor cooling water as specified in paragraph (b)(1)(i) of this section. Monitor each heat exchanger at new sources according to the specifications in paragraph (b)(1)(ii) of this section.

(i) Monitor monthly for 6 months, both initially and following completion of a leak repair. Then monitor as provided in paragraph (b)(1)(i)(A) or (b)(1)(i)(B) of this section, as appropriate.

(A) If no leaks are detected by monitoring monthly for a 6-month period, monitor quarterly thereafter until a leak is detected.

(B) If a leak is detected, monitor monthly until the leak has been repaired. Upon completion of repair,

monitor according to the specifications in paragraph (b)(1)(i) of this section.

(ii) Monitor weekly for 6 months, both initially and following completion of a leak repair. Then monitor as provided in paragraph (b)(1)(ii)(A) or (B) of this section, as appropriate.

(A) If no leaks are detected by monitoring weekly for a 6-month period, monitor monthly thereafter until a leak is detected.

(B) If a leak is detected, monitor weekly until the leak has been repaired. Upon completion of the repair, monitor according to the specifications in paragraph (b)(1)(ii) of this section.

(2) Determine the concentration of the monitored substance in the cooling water using any method listed in 40 CFR part 136, as long as the method is sensitive to concentrations as low as 10 ppmv. Use the same method for both entrance and exit samples. Validation of 40 CFR part 136 methods for the HAP listed in Table 1 to this subpart may be determined according to the provisions of appendix D to this part. Alternative methods may be used upon approval by the Administrator.

(3) Take a minimum of three sets of samples at each heat exchanger entrance and exit.

(4) Calculate the average entrance and exit concentrations, correcting for the addition of make-up water and evaporative losses, if applicable. Using a one-sided statistical procedure at the 0.05 level of significance, if the exit mean concentration is at least 1 ppmw or 10 percent greater than the entrance mean, whichever is greater, you have detected a leak.

(c) *Surrogate parameters.* You may elect to comply with the requirements of this section by monitoring using a surrogate indicator of leaks, provided that you comply with the requirements of paragraphs (c)(1) through (3) of this section. Surrogate indicators that could be used to develop an acceptable monitoring program are ion specific electrode monitoring, pH, conductivity, or other representative indicators.

(1) You shall prepare and implement a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into cooling waters. The plan shall require monitoring of one or more process parameters or other conditions that indicate a leak. Monitoring that is already being conducted for other purposes may be used to satisfy the requirements of this section. The plan shall include the information specified in paragraphs (c)(1)(i) through (iv) of this section.

(i) A description of the parameter or condition to be monitored and an explanation of how the selected parameter or condition will reliably indicate the presence of a leak.

(ii) The parameter level(s) or condition(s) that shall constitute a leak. This shall be documented by data or calculations showing that the selected levels or conditions will reliably identify leaks. The monitoring must be sufficiently sensitive to determine the range of parameter levels or conditions when the system is not leaking. When the selected parameter level or condition is outside that range, you have detected a leak.

(iii) Monitoring periods. For existing sources, monitor cooling water as specified in paragraph (c)(1)(iii)(A) of this section. Monitor heat exchange systems at new sources according to the specifications in paragraph (c)(1)(iii)(B) of this section.

(A) Monitor monthly for 6 months, both initially and following completion of a leak repair. Then monitor as provided in paragraph (c)(1)(iii)(A)(*1*) or (c)(1)(iii)(A)(*2*) of this section, as appropriate.

(1) If no leaks are detected, monitor quarterly thereafter until a leak is detected.

(2) If a leak is detected, monitor monthly until the leak has been repaired. Upon completion of repair, monitor according to the specifications in paragraph (c)(1)(iii)(A) of this section.

(B) Monitor the cooling water weekly for heat exchange systems at new sources.

(iv) The records that will be maintained to document compliance with the requirements of this section.

(2) If a leak is identified by audio, visual, or olfactory inspection, a method listed in 40 CFR part 136, or any other means other than those described

in the monitoring plan, and the method(s) specified in the plan could not detect the leak, you shall revise the plan and document the basis for the changes. You shall complete the revisions to the plan no later than 180 days after discovery of the leak.

(3) You shall maintain, at all times, the monitoring plan that is currently in use. The current plan shall be maintained on-site, or shall be accessible from a central location by computer or other means that provide access within 2 hours after a request. If the monitoring plan is changed, you must retain the most recent superseded plan for at least 5 years from the date of its creation. The superseded plan shall be retained on-site or accessible from a central location by computer or other means that provide access within 2 hours after a request.

(d) *Simplifying assumptions for entrance mean concentration.* If you are complying with paragraph (a) or (b) of this section, you may elect to determine the entrance mean concentration as specified in paragraph (d)(1) or (2) of this section.

(1) Assume that the entrance mean concentration of the monitored substance is zero; or,

(2) Determine the entrance mean concentration of a monitored substance at a sampling location anywhere upstream of the heat exchanger or heat exchange system, provided that there is not a reasonable opportunity for the concentration to change at the entrance to each heat exchanger or heat exchange system.

(e) Beginning no later than the compliance dates specified in §63.1081(a), you must perform monitoring to identify leaks of total strippable hydrocarbons from each heat exchange system subject to the requirements of this subpart according to the procedures in paragraphs (e)(1) through (5) of this section.

(1) *Monitoring locations for closed-loop recirculation heat exchange systems.* For each closed loop recirculating heat exchange system, you must collect and analyze a sample from the location(s) described in either paragraph (e)(1)(i) or (ii) of this section.

(i) Each cooling tower return line or any representative riser within the cooling tower prior to exposure to air for each heat exchange system.

(ii) Selected heat exchanger exit line(s), so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s).

(2) *Monitoring locations for once-through heat exchange systems.* For each once-through heat exchange system, you must collect and analyze a sample from the location(s) described in paragraph (e)(2)(i) of this section. You may also elect to collect and analyze an additional sample from the location(s) described in paragraph (e)(2)(ii) of this section.

(i) Selected heat exchanger exit line(s), so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s). The selected monitoring location may be at a point where discharges from multiple heat exchange systems are combined provided that the combined cooling water flow rate at the monitoring location does not exceed 165,000 gallons per minute.

(ii) The inlet water feed line for a once-through heat exchange system prior to any heat exchanger. If multiple heat exchange systems use the same water feed (*i.e.*, inlet water from the same primary water source), you may monitor at one representative location and use the monitoring results for that sampling location for all heat exchange systems that use that same water feed.

(3) *Monitoring method.* If you comply with the total strippable hydrocarbon concentration leak action level as specified in paragraph (e)(4) of this section, you must comply with the requirements in paragraph (e)(3)(i) of this section. If you comply with the total hydrocarbon mass emissions rate leak action level as specified in paragraph (e)(4) of this section, you must comply with the requirements in paragraphs (e)(3)(i) and (ii) of this section.

(i) You must determine the total strippable hydrocarbon concentration (in parts per million by volume (ppmv) as methane) at each monitoring location using the ''Air Stripping Method

(Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources'' (incorporated by reference, see § 63.14) using a flame ionization detector analyzer for on-site determination as described in Section 6.1 of the Modified El Paso Method.

(ii) You must convert the total strippable hydrocarbon concentration (in ppmv as methane) to a total hydrocarbon mass emissions rate (as methane) using the calculations in Section 7.0 of ''Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources'' (incorporated by reference—see § 63.14).

(4) *Monitoring frequency and leak action level.* For each heat exchange system, you must comply with the applicable monitoring frequency and leak action level, as defined in paragraphs (e)(4)(i) through (iii) of this section. The monitoring frequencies specified in paragraphs (e)(4)(i) through (iii) of this section also apply to the inlet water feed line for a once-through heat exchange system, if you elect to monitor the inlet water feed as provided in paragraph (e)(2)(ii) of this section.

(i) For each heat exchange system that is part of an ethylene production affected source that commenced construction or reconstruction on or before December 6, 2000, you must monitor quarterly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 6.2 ppmv or, for heat exchange systems with a recirculation rate of 10,000 gallons per minute or less, you may monitor quarterly using a leak action level defined as a total hydrocarbon mass emissions rate from the heat exchange system (as methane) of 0.18 kg/hr. If a leak is detected as specified in paragraph (e)(5) of this section, then you must monitor monthly until the leak has been repaired according to the requirements in § 63.1087(c) or (d). Once the leak has been repaired according to the requirements in § 63.1087(c) or (d), quarterly monitoring for the heat exchange system may resume.

(ii) For each heat exchange system that is part of an ethylene production affected source that commences construction or reconstruction after December 6, 2000 and on or before October 9, 2019, you must monitor at the applicable frequency specified in paragraph (e)(4)(ii)(A) or (B) of this section using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 6.2 ppmv or, for heat exchange systems with a recirculation rate of 10,000 gallons per minute or less, you may monitor at the applicable frequency specified in paragraph (e)(4)(ii)(A) or (B) of this section using a leak action level defined as a total hydrocarbon mass emissions rate from the heat exchange system (as methane) of 0.18 kg/hr.

(A) If you have completed the initial weekly monitoring for 6-months of the heat exchange system as specified in § 63.1086(a)(2)(ii) or (b)(1)(ii) then you must monitor monthly. If a leak is detected as specified in paragraph (e)(5) of this section, then you must monitor weekly until the leak has been repaired according to the requirements in § 63.1087(c) or (d). Once the leak has been repaired according to the requirements in § 63.1087(c) or (d), monthly monitoring for the heat exchange system may resume.

(B) If you have not completed the initial weekly monitoring for 6-months of the heat exchange system as specified in § 63.1086(a)(2)(ii) or (b)(1)(ii), or if you elect to comply with paragraph (e) of this section rather than paragraphs (a) through (d) of this section upon startup, then you must initially monitor weekly for 6-months beginning upon startup and monitor monthly thereafter. If a leak is detected as specified in paragraph (e)(5) of this section, then you must monitor weekly until the leak has been repaired according to the requirements in § 63.1087(c) or (d). Once the leak has been repaired according to the requirements in § 63.1087(c) or (d), monthly monitoring for the heat exchange system may resume.

(iii) For each heat exchange system that is part of an ethylene production affected source that commences construction or reconstruction after October 9, 2019, you must initially monitor weekly for 6-months beginning upon startup and monitor monthly thereafter using a leak action level defined

as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 6.2 ppmv or, for heat exchange systems with a recirculation rate of 10,000 gallons per minute or less, you may use a leak action level defined as a total hydrocarbon mass emissions rate from the heat exchange system (as methane) of 0.18 kg/hr if the heat exchange system has a recirculation rate of 10,000 gallons per minute or less. If a leak is detected as specified in paragraph (e)(5) of this section, then you must monitor weekly until the leak has been repaired according to the requirements in §63.1087(c) or (d). Once the leak has been repaired according to the requirements in §63.1087(c) or (d), monthly monitoring for the heat exchange system may resume.

(5) *Leak definition.* A leak is defined as described in paragraph (e)(5)(i) or (ii) of this section, as applicable.

(i) For once-through heat exchange systems for which the inlet water feed is monitored as described in paragraph (e)(2)(ii) of this section, a leak is detected if the difference in the measurement value of the sample taken from a location specified in paragraph (e)(2)(i) of this section and the measurement value of the corresponding sample taken from the location specified in paragraph (e)(2)(ii) of this section equals or exceeds the leak action level.

(ii) For all other heat exchange systems, a leak is detected if a measurement value of the sample taken from a location specified in paragraph (e)(1)(i), (ii), or (e)(2)(i) of this section equals or exceeds the leak action level.

[67 FR 46271, July 12, 2002, as amended at 70 FR 19271, Apr. 13, 2005; 85 FR 40420, July 6, 2020]

REPAIR REQUIREMENTS FOR HEAT EXCHANGE SYSTEMS

§63.1087 What actions must I take if a leak is detected?

Except as specified in §63.1085(f) and paragraphs (c) and (d) of this section, if a leak is detected, you must comply with the requirements in paragraphs (a) and (b) of this section unless repair is delayed according to §63.1088.

(a) Repair the leak as soon as practical but not later than 45 calendar days after you received the results of monitoring tests that indicated a leak. You must repair the leak unless you demonstrate that the results are due to a condition other than a leak.

(b) Once the leak has been repaired, use the monitoring requirements in §63.1086 within 7 calendar days of the repair or startup, whichever is later, to confirm that the heat exchange system has been repaired.

(c) Beginning no later than the compliance dates specified in §63.1081(a), if a leak is detected using the methods described in §63.1086(e), you must repair the leak to reduce the concentration or mass emissions rate to below the applicable leak action level as soon as practicable, but no later than 45 days after identifying the leak, except as specified in §63.1088(d). Repair must include re-monitoring at the monitoring location where the leak was identified according to the method specified in §63.1086(e)(3) to verify that the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate is below the applicable leak action level. Repair may also include performing the additional monitoring in paragraph (d) of this section to verify that the total strippable hydrocarbon concentration is below the applicable leak action level. Actions that can be taken to achieve repair include but are not limited to:

(1) Physical modifications to the leaking heat exchanger, such as welding the leak or replacing a tube;

(2) Blocking the leaking tube within the heat exchanger;

(3) Changing the pressure so that water flows into the process fluid;

(4) Replacing the heat exchanger or heat exchanger bundle; or

(5) Isolating, bypassing, or otherwise removing the leaking heat exchanger from service until it is otherwise repaired.

(d) Beginning no later than the compliance dates specified in §63.1081(a), if you detect a leak when monitoring a cooling tower return line according to §63.1086(e)(1)(i), you may conduct additional monitoring of each heat exchanger or group of heat exchangers associated with the heat exchange system for which the leak was detected, as provided in §63.1086(e)(1)(ii). If no leaks

are detected when monitoring according to the requirements of § 63.1086(e)(1)(ii), the heat exchange system is considered to have met the repair requirements through re-monitoring of the heat exchange system, as provided in paragraph (c) of this section.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40421, July 6, 2020]

§ 63.1088 In what situations may I delay leak repair, and what actions must I take for delay of repair?

You may delay the repair of heat exchange systems if the leaking equipment is isolated from the process. At any time before the compliance dates specified in § 63.1081(a), you may also delay repair if repair is technically infeasible without a shutdown, and you meet one of the conditions in paragraphs (a) through (c) of this section. Beginning no later than the compliance dates specified in § 63.1081(a), paragraphs (a) through (c) of this section no longer apply; instead, you may delay repair if the conditions in paragraph (d) of this section are met.

(a) If a shutdown is expected within the next 2 months of determining delay of repair is necessary, you are not required to have a special shutdown before that planned shutdown.

(b) If a shutdown is not expected within the next 2 months of determining delay of repair is necessary, you may delay repair if a shutdown for repair would cause greater emissions than the potential emissions from delaying repair until the next shutdown of the process equipment associated with the leaking heat exchanger. You must document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delay of repair. The documentation process must include the activities in paragraphs (b)(1) through (4) of this section.

(1) State the reason(s) for delaying repair.

(2) Specify a schedule for completing the repair as soon as practical.

(3) Calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of HAP listed in Table 1 to this subpart (or other monitored substances) in the cooling water from the leaking heat exchanger by the flow rate of the cooling water from the leaking heat exchanger and by the expected duration of the delay.

(4) Determine emissions of HAP listed in Table 1 to this subpart (or other monitored substances) from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair.

(c) If repair is delayed because the necessary equipment, parts or personnel are not available, you may delay repair a maximum of 120 calendar days. You must demonstrate that the necessary equipment, parts or personnel were not available.

(d) Beginning no later than the compliance dates specified in § 63.1081(a), you may delay repair when one of the conditions in paragraph (d)(1) or (2) of this section is met and the leak is less than the delay of repair action level specified in paragraph (d)(3) of this section. You must determine if a delay of repair is necessary as soon as practicable, but no later than 45 days after first identifying the leak.

(1) If the repair is technically infeasible without a shutdown and the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate is initially and remains less than the delay of repair action level for all monitoring periods during the delay of repair, then you may delay repair until the next scheduled shutdown of the heat exchange system. If, during subsequent monitoring, the delay of repair action level is exceeded, then you must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.

(2) If the necessary equipment, parts, or personnel are not available and the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate is initially and remains less than the delay of repair action level for all monitoring periods during the delay of repair, then you may delay the repair for a maximum of 120 calendar days. You must demonstrate that the necessary equipment, parts, or personnel were not available. If, during subsequent monitoring, the delay of repair action level is exceeded, then you

must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.

(3) The delay of repair action level is a total strippable hydrocarbon concentration (as methane) in the stripping gas of 62 ppmv or, for heat exchange systems with a recirculation rate of 10,000 gallons per minute or less, the delay of repair action level is a total hydrocarbon mass emissions rate (as methane) or 1.8 kg/hr. The delay of repair action level is assessed as described in paragraph (d)(3)(i) or (ii) of this section, as applicable.

(i) For once-through heat exchange systems for which the inlet water feed is monitored as described in §63.1086(e)(2)(ii), the delay of repair action level is exceeded if the difference in the measurement value of the sample taken from a location specified in §63.1086(e)(2)(i) and the measurement value of the corresponding sample taken from the location specified in §63.1086(e)(2)(ii) equals or exceeds the delay of repair action level.

(ii) For all other heat exchange systems, the delay of repair action level is exceeded if a measurement value of the sample taken from a location specified in §63.1086(e)(1)(i) and (ii) or §63.1086(e)(2)(i) equals or exceeds the delay of repair action level.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40421, July 6, 2020]

RECORDKEEPING AND REPORTING REQUIREMENTS FOR HEAT EXCHANGE SYSTEMS

§63.1089 What records must I keep?

You must keep the records in paragraphs (a) through (e) of this section, according to the requirements of §63.1109(c).

(a) Monitoring data required by §63.1086 that indicate a leak, the date the leak was detected, or, if applicable, the basis for determining there is no leak.

(b) The dates of efforts to repair leaks.

(c) The method or procedures used to confirm repair of a leak and the date the repair was confirmed.

(d) At any time before the compliance dates specified in §63.1081(a), you must keep documentation of delay of repair as specified in §63.1088(a) through (c). Beginning no later than the compliance dates specified in §63.1081(a), the requirement to keep documentation of delay of repair as specified in §63.1088(a) through (c) no longer applies; instead, you must keep documentation of delay of repair as specified in paragraphs (d)(1) through (4) of this section.

(1) The reason(s) for delaying repair.

(2) A schedule for completing the repair as soon as practical.

(3) The date and concentration or mass emissions rate of the leak as first identified and the results of all subsequent monitoring events during the delay of repair.

(4) An estimate of the potential total hydrocarbon emissions from the leaking heat exchange system or heat exchanger for each required delay of repair monitoring interval following the applicable procedures in paragraphs (d)(4)(i) through (iii) of this section.

(i) If you comply with the total strippable hydrocarbon concentration leak action level, as specified in §63.1086(e)(4), you must calculate the mass emissions rate by complying with the requirements of §63.1086(e)(3)(ii) or by determining the mass flow rate of the cooling water at the monitoring location where the leak was detected. If the monitoring location is an individual cooling tower riser, determine the total cooling water mass flow rate to the cooling tower. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. If you determine the mass flow rate of the cooling water, calculate the mass emissions rate by converting the stripping gas leak concentration (in ppmv as methane) to an equivalent liquid concentration, in parts per million by weight (ppmw), using equation 7–1 from ''Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources'' (incorporated by reference—see §63.14) and multiply the equivalent liquid concentration by the mass flow rate of the cooling water.

(ii) For delay of repair monitoring intervals prior to repair of the leak, calculate the potential total hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the monitoring interval by multiplying the mass emissions rate, determined in § 63.1086(e)(3)(ii) or paragraph (d)(4)(i) of this section, by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have been completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.

(iii) For delay of repair monitoring intervals ending with a repaired leak, calculate the potential total hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the final delay of repair monitoring interval by multiplying the duration of the final delay of repair monitoring interval by the mass emissions rate determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to re-monitoring to verify the leak was repaired and ending at the time of the re-monitoring event that verified that the leak was repaired.

(e) At any time before the compliance dates specified in § 63.1081(a), if you validate a 40 CFR part 136 method for the HAP listed in Table 1 to this subpart according to the procedures in appendix D to this part, then you must keep a record of the test data and calculations used in the validation. On the compliance dates specified in § 63.1081(a), this requirement no longer applies.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40422, July 6, 2020]

§ 63.1090 What reports must I submit?

If you delay repair for your heat exchange system, you must report the delay of repair in the semiannual report required by § 63.1110(e). If the leak remains unrepaired, you must continue to report the delay of repair in semiannual reports until you repair the leak. Except as provided in paragraph (f) of this section, you must include the information in paragraphs (a) through (e) of this section in the semiannual report.

(a) The fact that a leak was detected, and the date that the leak was detected.

(b) Whether or not the leak has been repaired.

(c) The reasons for delay of repair. If you delayed the repair as provided in § 63.1088(b), documentation of emissions estimates.

(d) If a leak remains unrepaired, the expected date of repair.

(e) If a leak is repaired, the date the leak was successfully repaired.

(f) For heat exchange systems subject to § 63.1085(e) and (f), Periodic Reports must include the information specified in paragraphs (f)(1) through (5) of this section, in lieu of the information specified in paragraphs (a) through (e) of this section.

(1) The number of heat exchange systems at the plant site subject to the monitoring requirements in § 63.1085(e) and (f) during the reporting period.

(2) The number of heat exchange systems subject to the monitoring requirements in § 63.1085(e) and (f) at the plant site found to be leaking during the reporting period.

(3) For each monitoring location where the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate was determined to be equal to or greater than the applicable leak definitions specified in § 63.1086(e)(5) during the reporting period, identification of the monitoring location (*e.g.*, unique monitoring location or heat exchange system ID number), the measured total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate, the date the leak was first identified, and, if applicable, the date the source of the leak was identified;

(4) For leaks that were repaired during the reporting period (including delayed repairs), identification of the monitoring location associated with the repaired leak, the total strippable

hydrocarbon concentration or total hydrocarbon mass emissions rate measured during re-monitoring to verify repair, and the re-monitoring date (*i.e.*, the effective date of repair); and

(5) For each delayed repair, identification of the monitoring location associated with the leak for which repair is delayed, the date when the delay of repair began, the date the repair is expected to be completed (if the leak is not repaired during the reporting period), the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate and date of each monitoring event conducted on the delayed repair during the reporting period, and an estimate of the potential total hydrocarbon emissions over the reporting period associated with the delayed repair.

[67 FR 46271, July 12, 2002, as amended at 85 FR 40422, July 6, 2020]

BACKGROUND FOR WASTE REQUIREMENTS

§ 63.1091 What do the waste requirements do?

This subpart requires you to comply with 40 CFR part 61, subpart FF, National Emission Standards for Benzene Waste Operations. There are some differences between the ethylene production waste requirements and those of subpart FF.

§ 63.1092 What are the major differences between the requirements of 40 CFR part 61, subpart FF, and the waste requirements for ethylene production sources?

The major differences between the requirements of 40 CFR part 61, subpart FF, and the requirements for ethylene production sources are listed in paragraphs (a) through (d) of this section.

(a) The requirements for ethylene production sources apply to all ethylene production sources that are part of a major source. The requirements do not include a provision to exempt sources with a total annual benzene quantity less than 10 megagrams per year (Mg/yr) from control requirements.

(b) The requirements for ethylene production sources apply to continuous butadiene waste streams which do not contain benzene quantities that would make them subject to the management and treatment requirements of 40 CFR part 61, subpart FF.

(c) The requirements for ethylene production sources do not include the compliance options at 40 CFR 61.342(c)(3)(ii), (d) and (e) for sources with a total annual benzene quantity less than 10 Mg/yr.

(d) If you transfer waste off-site, you must comply with the requirements in § 63.1096 rather than 40 CFR 61.342(f).

APPLICABILITY FOR WASTE REQUIREMENTS

§ 63.1093 Does this subpart apply to my waste streams?

The waste stream provisions of this subpart apply to your waste streams if you own or operate an ethylene production facility expressly referenced to this subpart XX from subpart YY of this part. The provisions of subpart A (General Provisions) of this part do not apply to this subpart except as specified in a referencing subpart.

§ 63.1094 What waste streams are exempt from the requirements of this subpart?

The types of waste described in paragraphs (a) and (b) of this section are exempt from this subpart.

(a) Waste in the form of gases or vapors that is emitted from process fluids.

(b) Waste that is contained in a segregated storm water sewer system.

WASTE REQUIREMENTS

§ 63.1095 What specific requirements must I comply with?

For waste that is not transferred offsite, you must comply with the requirements in paragraph (a) of this section for continuous butadiene waste streams and paragraph (b) of this section for benzene waste streams. If you transfer waste off-site, you must comply with the requirements of § 63.1096.

(a) *Continuous butadiene waste streams.* Manage and treat continuous butadiene waste streams that contain greater than or equal to 10 ppmw 1,3-butadiene and have a flow rate greater than or equal to 0.02 liters per minute, according to either paragraph (a)(1) or (2) of this section. If the total annual

benzene quantity from waste at your facility is less than 10 Mg/yr, as determined according to 40 CFR 61.342(a), the requirements of paragraph (a)(3) of this section apply also.

(1) Route the continuous butadiene stream to a treatment process or wastewater treatment system used to treat benzene waste streams that complies with the standards specified in 40 CFR 61.348. Comply with the requirements of 40 CFR part 61, subpart FF; with the changes in Table 2 to this subpart, and as specified in paragraphs (a)(1)(i) through (vi) of this section.

(i) Determine the butadiene concentration of the waste stream according to 40 CFR 61.355(c)(1) through (3), except substitute ''1,3-butadiene'' for each occurrence of ''benzene.'' You may validate 40 CFR part 136 methods for 1,3-butadiene according to the procedures in appendix D to this part. You do not need to determine the butadiene concentration of a waste stream if you designate that the stream must be controlled.

(ii) Comply with 40 CFR 61.342(c)(1)(ii) and (iii) for each waste management unit that receives or manages the waste stream prior to and during treatment or recycling of the waste stream.

(iii) Comply with the recordkeeping requirements in 40 CFR 61.356(b), (b)(1) and (b)(2), except substitute ''1,3-butadiene'' for each occurrence of ''benzene'' and ''continuous butadiene waste stream'' for each occurrence of ''waste stream.''

(iv) Comply with the reporting requirements in 40 CFR 61.357(a), (a)(2), (a)(3), (a)(3)(iii) through (v), and (d)(1) and (2), except substitute ''1,3-butadiene'' for each occurrence of ''benzene'' and ''continuous butadiene waste stream'' for each occurrence of ''waste stream.''

(v) Include only the information in 40 CFR 61.357(a)(2) and (a)(3)(iii) through (v) in the report required in 40 CFR 61.357(a) and (d)(2).

(vi) Beginning no later than the compliance dates specified in §63.1081(b), if you use a steam-assisted, air-assisted, non-assisted, or pressure-assisted multi-point flare to comply with 40 CFR part 61, subpart FF, then you must comply with the requirements §63.1103(e)(4) in lieu of 40 CFR 61.349(a)(2)(iii) and (d), 40 CFR 61.354(c)(3), 40 CFR 61.356(f)(2)(i)(D) and (j)(7), and 40 CFR 61.357(d)(7)(iv)(F).

(2) Comply with the process wastewater requirements of subpart G of this part. Submit the information required in §63.146(b) in the Notification of Compliance Status required by §63.1110(d). Submit the information required in §63.146(c) through (e) in either the Periodic Reports required in §63.152 or the Periodic Reports required in §63.1110(e).

(3) Before July 6, 2023, if the total annual benzene quantity from waste at your facility is less than 10 Mg/yr, as determined according to 40 CFR 61.342(a), comply with the requirements of this section at all times except during periods of startup, shutdown, and malfunction, if the startup, shutdown, or malfunction precludes the ability of the affected source to comply with the requirements of this section and the owner or operator follows the provisions for periods of startup, shutdown, and malfunction, as specified in §63.1111. Beginning on July 6, 2023, if the total annual benzene quantity from waste at your facility is less than 10 Mg/yr, as determined according to 40 CFR 61.342(a), you must comply with the requirements of this section at all times.

(b) *Waste streams that contain benzene.* For waste streams that contain benzene, you must comply with the requirements of 40 CFR part 61, subpart FF, except as specified in Table 2 to this subpart and paragraph (b)(3) of this section. You must manage and treat waste streams that contain benzene as specified in either paragraph (b)(1) or (2) of this section.

(1) If the total annual benzene quantity from waste at your facility is less than 10 Mg/yr, as determined according to 40 CFR 61.342(a), manage and treat spent caustic waste streams and dilution steam blowdown waste streams according to 40 CFR 61.342(c)(1) through (c)(3)(i). Before July 6, 2023, the requirements of this paragraph (b)(1) shall apply at all times except during periods of startup, shutdown, and malfunction, if the startup, shutdown, or malfunction precludes the ability of the affected source to comply with the requirements of this section and the

owner or operator follows the provisions for periods of startup, shutdown, and malfunction, as specified in § 63.1111. Beginning on July 6, 2023, the requirements of this paragraph (b)(1) shall apply at all times.

(2) If the total annual benzene quantity from waste at your facility is greater than or equal to 10 Mg/yr, as determined according to 40 CFR 61.342(a), you must manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e) or transfer waste off-site. If you elect to transfer waste off-site, then you must comply with the requirements of § 63.1096.

(3) Beginning no later than the compliance dates specified in § 63.1081(b), if you use a steam-assisted, air-assisted, non-assisted, or pressure-assisted multi-point flare to comply with 40 CFR part 61, subpart FF, then you must comply with the requirements of § 63.1103(e)(4) in lieu of 40 CFR 61.349(a)(2)(iii) and (d), 40 CFR 61.354(c)(3), 40 CFR 61.356(f)(2)(i)(D) and (j)(7), and 40 CFR 61.357(d)(7)(iv)(F).

[67 FR 46271, July 12, 2002, as amended at 70 FR 19272, Apr. 13, 2005; 85 FR 40423, July 6, 2020]

§ 63.1096 What requirements must I comply with if I transfer waste off-site?

If you elect to transfer waste off-site, you must comply with the requirements in paragraphs (a) through (d) of this section.

(a) Include a notice with the shipment or transport of each waste stream. The notice shall state that the waste stream contains organic HAP that are to be treated in accordance with the provisions of this subpart. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment.

(b) You may not transfer the waste stream unless the transferee has submitted to the Administrator a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of this subpart in accordance with the requirements of this subpart.

(c) By providing this written certification to the Administrator, the certifying entity accepts responsibility for compliance with the regulatory provisions in this subpart with respect to any shipment of waste covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by EPA against the certifying entity in accordance with the enforcement provisions applicable to violations of those provisions by owners or operators of sources.

(d) The certifying entity may revoke the written certification by sending a written statement to the Administrator and you. The notice of revocation must provide at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions of this subpart. Upon expiration of the notice period, you may not transfer the waste stream to that off-site treatment operation. Written certifications and revocation statements to the Administrator from the transferees of waste shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Such written certifications are not transferable by the treater to other off-site waste treatment operators.

Implementation and Enforcement

§ 63.1097 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency

under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the nonopacity emissions standards in §§ 63.1085, 63.1086 and 63.1095, under § 63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(2) [Reserved]

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

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

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

TABLE 1 TO SUBPART XX OF PART 63—HAZARDOUS AIR POLLUTANTS

Hazardous air pollutant	CAS No.
Benzene	71432
1,3-Butadiene	106990
Cumene	98828
Ethyl benzene	100414
Hexane	110543
Naphthalene	91203
Styrene	100425
Toluene	108883
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

TABLE 2 TO SUBPART XX OF PART 63—REQUIREMENTS OF 40 CFR PART 61, SUBPART FF, NOT INCLUDED IN THE REQUIREMENTS FOR THIS SUBPART AND ALTERNATE REQUIREMENTS

If the total annual benzene quantity for waste from your facility is * * *	Do not comply with:	Instead, comply with:
1. Less than 10 Mg/yr	40 CFR 61.340	§ 63.1093.
	40 CFR 61.342(c)(3)(ii), (d), and (e)	There is no equivalent requirement.
	40 CFR 61.342(f)	§ 63.1096.
	40 CFR 61.355(j) and (k)	There is no equivalent requirement.
	40 CFR 61.356(b)(2)(ii), (b)(3) through (b)(5).	There is no equivalent requirement.
	The requirement to submit the information required in 40 CFR 61.357(a) to the Administrator within 90 days after January 7, 1993.	The requirement to submit the information required in 40 CFR 61.357(a) as part of the Initial Notification required in 40 CFR 63.1110(c).
	The requirement in 40 CFR 61.357(d) to submit the information in 40 CFR 61.357(d)(1) and (d)(2) if the TAB quantity from your facility is equal to or greater than 10 Mg/yr.	The requirement to submit the information in 40 CFR 61.357(d)(1) and (d)(2) for spent caustic, dilution steam blowdown, and continuous butadiene waste streams.
	The requirement in 40 CFR 61.357(d)(1) to submit the information required in 40 CFR 63.357(d)(1) to the Administrator within 90 days after January 7, 1993.	The requirement to submit the information required in 40 CFR 61.357(d)(1) as part of the Notification of Compliance Status required in 40 CFR 63.1110(d).
	40 CFR 61.357(d)(3) through (d)(5)	There is no equivalent requirement.
2. Greater than or equal to 10 Mg/yr	40 CFR 61.340	§ 63.1093.
	40 CFR 61.342(f)	§ 63.1096.

If the total annual benzene quantity for waste from your facility is * * *	Do not comply with:	Instead, comply with:
	The requirement to submit the information required in 40 CFR 61.357(a) to the Administrator within 90 days after January 7, 1993.	The requirement to submit the information required in 40 CFR 61.357(a) as part of the Initial Notification required in 40 CFR 63.1110(c).
	The requirement in 40 CFR 61.357(d) to submit the information in 40 CFR 61.357(d)(1) and (d)(2) if the TAB quantity from your facility is equal to or greater than 10 Mg/yr.	The requirement to submit the information in 40 CFR 61.357(d)(1) and (d)(2) as part of the Notification of Compliance Status required in 40 CFR 63.1110(d).

[67 FR 46271, July 12, 2002, as amended at 85 FR 40423, July 6, 2020]

Subpart YY—National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards

SOURCE: 64 FR 34921, June 29, 1999, unless otherwise noted.

§ 63.1100 Applicability.

(a) *General.* This subpart applies to source categories and affected sources specified in § 63.1103(a) through (h). The affected emission points, by source category, are summarized in table 1 of this section. This table also delineates the section and paragraph of the rule that directs an owner or operator of an affected source to source category-specific control, monitoring, recordkeeping, and reporting requirements.

TABLE 1 TO § 63.1100(a)—SOURCE CATEGORY MACT[a] APPLICABILITY

Source category	Storage vessels	Process vents	Transfer racks	Equipment leaks	Wastewater streams	Other	Source category MACT requirements
Acetal Resins Production	Yes	Yes	No	Yes	Yes	No	§ 63.1103(a)
Acrylic and Modacrylic Fibers Production.	Yes	Yes	No	Yes	Yes	Yes[b]	§ 63.1103(b)
Carbon Black Production	No	Yes	No	No	No	No	§ 63.1103(f).
Cyanide Chemicals Manufacturing.	Yes	Yes	Yes	Yes	Yes	No	§ 63.1103(g).
Ethylene Production	Yes	Yes	Yes	Yes	Yes	Yes[c]	§ 63.1103(e).
Hydrogen Fluoride Production.	Yes	Yes	Yes	Yes	No	No	§ 63.1103(c)
Polycarbonate Production	Yes	Yes	No	Yes	Yes	No	§ 63.1103(d)
Spandex Production	Yes	Yes	No	No	No	Yes[d]	§ 63.1103(h).

[a] Maximum achievable control technology.
[b] Fiber spinning lines using spinning solution or suspension containing acrylonitrile.
[c] Heat exchange systems as defined in § 63.1082(b).
[d] Fiber spinning lines.

(b) *Subpart A requirements.* The following provisions of subpart A of this part (General Provisions), §§ 63.1 through 63.5, and §§ 63.12 through 63.15, apply to owners or operators of affected sources subject to this subpart. For sources that reclassify from major source to area source status, the applicable provisions of § 63.9(j) and (k) apply. Beginning no later than the compliance dates specified in § 63.1102(c), for ethylene production affected sources, §§ 63.7(a)(4), (c), (e)(4), and (g)(2), 63.9(k), and 63.10(b)(2)(vi) also apply.

(c) *Research and development facilities.* The provisions of this subpart do not apply to research and development facilities, consistent with section 112(b)(7) of the Act.

(d) *Primary product determination and applicability.* The primary product of a process unit shall be determined according to the procedures specified in paragraphs (d)(1) and (2) of this section. Paragraphs (d)(3), (4), and (5) of this section discuss compliance for those process units operated as flexible operation units.

(1) If a process unit only manufactures one product, then that product shall represent the primary product of the process unit.

(2) If a process unit is designed and operated as a flexible operation unit, the primary product shall be determined as specified in paragraphs (d)(2)(i) or (ii) of this section based on the anticipated operations for the 5 years following the promulgation date for existing affected sources and for the first 5 years after initial startup for new affected sources.

(i) If the flexible operation unit will manufacture one product for the greatest percentage of operating time over the five-year period, then that product shall represent the primary product of the flexible operation unit.

(ii) If the flexible operation unit will manufacture multiple products equally based on operating time, then the product with the greatest production on a mass basis over the five-year period shall represent the primary product of the flexible operation unit.

(3) Once the primary product of a process unit has been determined to be a product produced by a source category subject to this subpart, the owner or operator of the affected source shall comply with the standards for the primary product production process unit.

(4) The determination of the primary product for a process unit, including the assessment of applicability of this subpart to process units that are designed and operated as flexible operation units, shall be reported in the Notification of Compliance Status report required by §63.1110(a)(4) when the primary product is determined to be a product produced by a source category subject to requirements under this subpart. The Notification of Compliance Status shall include the information specified in either paragraph (d)(4)(i) or (ii) of this section. If the primary product is determined to be something other than a product produced by a source category subject to requirements under this subpart, the owner or operator shall retain information, data, and analyses used to document the basis for the determination that the primary product is not produced by a source category subject to requirements under this subpart.

(i) If the process unit manufactures only one product subject to requirements under this subpart, the identity of that product.

(ii) If the process unit is designed and operated as a flexible operation unit, the information specified in paragraphs (d)(4)(ii)(A) and (B) of this section, as appropriate.

(A) The identity of the primary product.

(B) Information concerning operating time and/or production mass for each product that was used to make the determination of the primary product under paragraph (d)(2)(i) or (ii) of this section.

(5) When a flexible operation unit that is subject to this subpart is producing a product other than a product subject to this subpart, or is producing a product subject to this subpart that is not the primary product, the owner or operator shall comply with either paragraph (d)(5) (i) or (ii) of this section for each emission point.

(i) The owner or operator shall control emissions during the production of all products in accordance with the requirements for the production of the primary product. As appropriate, the owner or operator shall demonstrate that the parameter monitoring level established for the primary product is also appropriate for those periods when products other than the primary product are being produced. Documentation of this demonstration shall be submitted in the Notification of Compliance Status report required by §63.1110(a)(4).

(ii) The owner or operator shall determine, for the production of each product, whether control is required in accordance with the applicable criteria for the primary product in §63.1103. If control is required, the owner or operator shall establish separate parameter monitoring levels, as appropriate, for the production of each product. The parameter monitoring levels developed shall be submitted in the Notification of Compliance Status report required by §63.1110(a)(4).

(e) *Storage vessel ownership determination.* To determine the process unit to which a storage vessel shall belong, the

owner or operator shall sequentially follow the procedures specified in paragraphs (e)(1) through (8) of this section, stopping as soon as the determination is made.

(1) If a storage vessel is already subject to another subpart of this part on the date of promulgation for an affected source under the generic MACT, that storage vessel shall belong to the process unit subject to the other subpart.

(2) If a storage vessel is dedicated to a single process unit, the storage vessel shall belong to that process unit.

(3) If a storage vessel is shared among process units, then the storage vessel shall belong to that process unit located on the same plant site as the storage vessel that has the greatest input into or output from the storage vessel (i.e., the process unit has the predominant use of the storage vessel.)

(4) If predominant use cannot be determined for a storage vessel that is shared among process units and if only one of those process units is subject to this subpart, the storage vessel shall belong to that process unit.

(5) If predominant use cannot be determined for a storage vessel that is shared among process units and if more than one of the process units are subject to standards under this subpart that have different primary products, then the owner or operator shall assign the storage vessel to any one of the process units sharing the storage vessel.

(6) If the predominant use of a storage vessel varies from year to year, then predominant use shall be determined based on the utilization that occurred during the year preceding the date of promulgation of standards for an affected source under this subpart or based on the expected utilization for the 5 years following the promulgation date of standards for an affected source under this subpart for existing affected sources, whichever is more representative of the expected operations for that storage vessel, and based on the expected utilization for the 5 years after initial startup for new affected sources. The determination of predominant use shall be reported in the Notification of Compliance Status Report required by §63.1110(a)(4). If the predominant use changes, the redetermination of predominant use shall be reported in the next Periodic Report.

(7) If the storage vessel begins receiving material from (or sending material to) another process unit; ceases to receive material from (or send material to) a process unit; or if the applicability of this subpart to a storage vessel has been determined according to the provisions of paragraphs (e)(1) through (6) of this section and there is a significant change in the use of the storage vessel that could reasonably change the predominant use, the owner or operator shall reevaluate the applicability of this subpart to the storage vessel.

(8) Where a storage vessel is located at a major source that includes one or more process units that place material into, or receive materials from, the storage vessel, but the storage vessel is located in a tank farm, the applicability of this subpart shall be determined according to the provisions in paragraphs (e)(8)(i) through (iii) of this section.

(i) The storage vessel may only be assigned to a process unit that utilizes the storage vessel and does not have an intervening storage vessel for that product (or raw material, as appropriate). With respect to any process unit, an intervening storage vessel means a storage vessel connected by hard-piping to the process unit and to the storage vessel in the tank farm so that product or raw material entering or leaving the process unit flows into (or from) the intervening storage vessel and does not flow directly into (or from) the storage vessel in the tank farm.

(ii) If there is only one process unit at a major source that meets the criteria of paragraph (e)(8)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to that process unit.

(iii) If there are two or more process units at the major source that meet the criteria of paragraph (e)(8)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to one of those process units according to the provisions of paragraph (e)(6) of this section. The predominant use shall be determined among only

those process units that meet the criteria of paragraph (e)(8)(i) of this section.

(f) *Recovery operation equipment ownership determination.* To determine the process unit to which recovery equipment shall belong, the owner or operator shall sequentially follow the procedures specified in paragraphs (f)(1) through (7) of this section, stopping as soon as the determination is made.

(1) If recovery operation equipment is already subject to another subpart of this part on the date standards are promulgated for an affected source, that recovery operation equipment shall belong to the process unit subject to the other subpart.

(2) If recovery operation equipment is used exclusively by a single process unit, the recovery operation shall belong to that process unit.

(3) If recovery operation equipment is shared among process units, then the recovery operation equipment shall belong to that process unit that has the greatest input into or output from the recovery operation equipment (i.e., that process unit has the predominant use of the recovery operation equipment).

(4) If predominant use cannot be determined for recovery operation equipment that is shared among process units and if one of those process units is a process unit subject to this subpart, the recovery operation equipment shall belong to the process unit subject to this subpart.

(5) If predominant use cannot be determined for recovery operation equipment that is shared among process units and if more than one of the process units are process units that have different primary products and that are subject to this subpart, then the owner or operator shall assign the recovery operation equipment to any one of those process units.

(6) If the predominant use of recovery operation equipment varies from year to year, then the predominant use shall be determined based on the utilization that occurred during the year preceding the promulgation date of standards for an affected source under this subpart or based on the expected utilization for the 5 years following the promulgation date for standards for an affected source under this subpart for existing affected sources, whichever is the more representative of the expected operations for the recovery operations equipment, and based on the expected utilization for the first 5 years after initial startup for new affected sources. This determination shall be reported in the Notification of Compliance Status Report required by §63.1110(a)(4). If the predominant use changes, the redetermination of predominant use shall be reported in the next Periodic Report.

(7) If there is an unexpected change in the utilization of recovery operation equipment that could reasonably change the predominant use, the owner or operator shall redetermine to which process unit the recovery operation belongs by reperforming the procedures specified in paragraphs (f)(2) through (6) of this section.

(g) *Overlap with other regulations.* Paragraphs (g)(1) through (7) of this section specify the applicability of this subpart YY emission point requirements when other rules may apply. Where this subpart YY allows an owner or operator an option to comply with one or another regulation to comply with this subpart YY, an owner or operator must report which regulation they choose to comply with in the Notification of Compliance Status report required by §63.1110(a)(4).

(1) *Overlap of subpart YY with other regulations for storage vessels.* (i) After the compliance dates specified in §63.1102, a storage vessel subject to this subpart YY that is also subject to subpart G or CC of this part is required to comply only with the provisions of this subpart YY.

(ii) After the compliance dates specified in §63.1102, a storage vessel that must be controlled according to the requirements of this subpart and subpart Ka or Kb of 40 CFR part 60 is required to comply only with the storage vessel requirements of this subpart.

(2) *Overlap of subpart YY with other regulations for process vents.* (i) After the compliance dates specified in §63.1102, a process vent that must be controlled according to the requirements of this subpart and subpart G of this part is in compliance with this subpart if it complies with either set of

requirements. The owner or operator must specify the rule with which they will comply in the Notification of Compliance Status report required by § 63.1110(a)(4).

(ii) After the compliance dates specified in § 63.1102, a process vent that must be controlled according to the requirements of this subpart and subpart III, RRR or NNN of 40 CFR part 60 is required to comply only with the process vent requirements of this subpart.

(3) *Overlap of this subpart YY with other regulations for transfer racks.* After the compliance dates specified in § 63.1102, a transfer rack that must be controlled according to the requirements of this subpart YY and either subpart G of this part or subpart BB of 40 CFR part 61 is required to comply only with the transfer rack requirements of this subpart YY.

(4) *Overlap of subpart YY with other regulations for equipment leaks.* (i) After the compliance dates specified in § 63.1102, equipment that must be controlled according to this subpart and 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart J or subpart V, is required only to comply with the equipment leak requirements of this subpart.

(ii) After the compliance dates specified in § 63.1102, equipment that must be controlled according to this subpart YY and subpart H of this part is in compliance with the equipment leak requirements of this subpart YY if it complies with either set of requirements. For ethylene production affected sources, the requirement in § 63.1103(e)(9)(i) also applies. The owner or operator must specify the rule with which they will comply in the Notification of Compliance Status report required by § 63.1110(a)(4).

(iii) Beginning no later than the compliance dates specified in § 63.1102(c), for ethylene production affected sources, equipment that must be controlled according to this subpart YY and subpart VVa of 40 CFR part 60 is required only to comply with the equipment leak requirements of this subpart, except the owner or operator must also comply with the calibration drift assessment requirements specified at 40 CFR 60.485a(b)(2) if they are required to do so in subpart VVa of 40 CFR part 60. When complying with the calibration drift assessment requirements at 40 CFR 60.485a(b)(2), the requirement at 40 CFR 60.486a(e)(8)(v) to record the instrument reading for each scale used applies.

(5) *Overlap of this subpart YY with other regulations for wastewater for source categories other than ethylene production.* (i) After the compliance dates specified in § 63.1102 for an affected source subject to this subpart, a wastewater stream that is subject to the wastewater requirements of this subpart and the wastewater requirements of subparts F, G, and H of this part (collectively known as the ''HON'') shall be deemed to be in compliance with the requirements of this subpart if it complies with either set of requirements. In any instance where a source subject to this subpart is collocated with a Synthetic Organic Chemical Manufacturing Industry (SOCMI) source, and a single wastewater treatment facility treats both Group 1 wastewaters and wastewater residuals from the source subject to this subpart and wastewaters from the SOCMI source, a certification by the treatment facility that they will manage and treat the waste in conformity with the specific control requirements set forth in §§ 63.133 through 63.147 will also be deemed sufficient to satisfy the certification requirements for wastewater treatment under this subpart.

(6) *Overlap of subpart YY with other regulations for waste for the ethylene production source category.* (i) After the compliance date specified in § 63.1102, a waste stream that is conveyed, stored, or treated in a wastewater stream management unit, waste management unit, or wastewater treatment system that receives streams subject to both the control requirements of § 63.1103(e)(3) for ethylene production sources and the provisions of §§ 63.133 through 63.147 shall comply as specified in paragraphs (g)(6)(i)(A) through (C) of this section. Compliance with the provisions of this paragraph (g)(6)(i) shall constitute compliance with the requirements of this subpart for that waste stream.

(A) Comply with the provisions in §§ 63.133 through 63.137 and 63.140 for all

equipment used in the storage and conveyance of the waste stream.

(B) Comply with the provisions in §§ 63.1103(e), 63.138, and 63.139 for the treatment and control of the waste stream.

(C) Comply with the provisions in §§ 63.143 through 63.148 for monitoring and inspections of equipment and for recordkeeping and reporting requirements. The owner or operator is not required to comply with the monitoring, recordkeeping, and reporting requirements associated with the treatment and control requirements in §§ 61.355 through 61.357.

(ii) After the compliance date specified in § 63.1102, compliance with § 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (subpart FF of 40 CFR part 61) for waste streams that are subject to both the control requirements of § 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR part 61, subpart FF.

(7) *Overlap of this subpart YY with other regulations for flares for the ethylene production source category.* (i) Beginning no later than the compliance dates specified in § 63.1102(c), flares that are subject to 40 CFR 60.18 or § 63.11 and used as a control device for an emission point subject to the requirements in Table 7 to § 63.1103(e) are required to comply only with § 63.1103(e)(4). At any time before the compliance dates specified in § 63.1102(c), flares that are subject to 40 CFR 60.18 or § 63.11 and elect to comply with § 63.1103(e)(4) are required to comply only with § 63.1103(e)(4).

(ii) Beginning no later than the compliance dates specified in § 63.1102(c), flares subject to § 63.987 and used as a control device for an emission point subject to the requirements in Table 7 to § 63.1103(e) are only required to comply with § 63.1103(e)(4).

(iii) Beginning no later than the compliance dates specified in § 63.1102(c), flares subject to the requirements in 40 CFR part 63, subpart CC and used as a control device for an emission point subject to the requirements in Table 7 to § 63.1103(e) are only required to comply with the flare requirements in 40 CFR part 63, subpart CC.

[64 FR 34921, June 29, 1999, as amended at 64 FR 63698, 63706, Nov. 22, 1999; 67 FR 46279, July 12, 2002; 70 FR 19272, Apr. 13, 2005; 79 FR 60922, Oct. 8, 2014; 85 FR 40423, July 6, 2020; 85 FR 73896, Nov. 19, 2020; 89 FR 23864, Apr. 4, 2024]

§ 63.1101 Definitions.

All terms used in this subpart shall have the meaning given them in the Act, in 40 CFR 63.2 (General Provisions), and in this section. The definitions in this section do not apply to waste requirements for ethylene production sources.

Annual average concentration, as used in the wastewater provisions, means the flow-weighted annual average concentration, as determined according to the procedures specified in § 63.144(b).

Annual average flow rate, as used in the wastewater provisions, means the annual average flow rate, as determined according to the procedures specified in § 63.144(c).

Batch cycle refers to manufacturing a product from start to finish in a batch unit operation.

Batch emission episode means a discrete venting episode that may be associated with a single unit operation. A unit operation may have more than one batch emission episode per batch cycle. For example, a displacement of vapor resulting from the charging of a vessel with organic HAP will result in a discrete emission episode. If the vessel is then heated, there may also be another discrete emission episode resulting from the expulsion of expanded vapor. Both emission episodes may occur during the same batch cycle in the same vessel or unit operation. There are possibly other emission episodes that may occur from the vessel or other process equipment, depending on process operations.

Batch unit operation means a unit operation involving intermittent or discontinuous feed into equipment and, in general, involves the emptying of equipment after the batch cycle ceases and prior to beginning a new batch cycle. Mass, temperature, concentration and other properties of the process may vary with time. Addition of raw material and withdrawal of product do

not simultaneously occur in a batch unit operation.

Bottoms receiver means a tank that collects distillation bottoms before the stream is sent for storage or for further downstream processing.

By compound means by individual stream components, not carbon equivalents.

Capacity means the volume of liquid that is capable of being stored in a storage vessel, determined by multiplying the vessel's internal cross-sectional area by the internal height of the shell.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device. A closed vent system does not include the vapor collection system that is part of any tank truck or railcar or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Combined vent stream means a process vent that is comprised of at least one gas stream from a batch unit operation manifolded with at least one gas stream from a continuous unit operation.

Compliance equipment means monitoring equipment used by an owner or operator of an affected source under this subpart to demonstrate compliance with an operation or emission limit standard.

Continuous parameter monitoring system or *CPMS* means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, and that is used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Continuous unit operation means a unit operation where the inputs and outputs flow continuously. Continuous unit operations typically approach steady-state conditions. Continuous unit operations typically involve the simultaneous addition of raw material and withdrawal of the product.

Control device means, with the exceptions noted below, a combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart or a referencing subpart. For process vents from continuous unit operations at affected sources in source categories where the applicability criteria includes a TRE index value, recovery devices are not considered to be control devices. Primary condensers on steam strippers or fuel gas systems are not considered to be control devices.

Day means a calendar day.

Distillate receiver means overhead receivers, overhead accumulators, reflux drums, and condenser(s) including ejector condenser(s) associated with a distillation unit.

Distillation unit means a device or vessel in which one or more feed streams are separated into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and the vapor phases by vaporization and condensation as they approach equilibrium within the distillation unit. Distillation unit includes the distillate receiver, reboiler, and any associated vacuum pump or steam jet.

Emission point means an individual process vent, storage vessel, transfer rack, wastewater stream, kiln, fiber spinning line, equipment leak, or other point where a gaseous stream is released.

Equipment means each of the following that is subject to control under this subpart: pump, compressor, agitator, pressure relief device, sampling collection system, open-ended valve or line, valve, connector, instrumentation system in organic hazardous air pollutant service as defined in § 63.1103 for the applicable process unit, whose primary product is a product produced by a source category subject to this subpart.

Equivalent method means any method of sampling and analysis for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively

known relationship to the reference method, under specified conditions.

Excess emissions means emissions in excess of those that would have occurred if there were no start-up, shutdown, or malfunction and the owner or operator complied with the relevant provisions of this subpart.

Final recovery device means the last recovery device on a process vent stream from a continuous unit operation at an affected source in a source category where the applicability criteria includes a TRE index value. The final recovery device usually discharges to a combustion device, recapture device, or directly to the atmosphere.

Flexible operation unit means a process unit that manufactures different chemical products periodically by alternating raw materials or operating conditions.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as a fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Group 1 wastewater stream means a process wastewater stream at an existing or new source that meets the criteria for Group 1 status in § 63.132(c).

Group 2 wastewater stream means a process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogens and hydrogen halides means hydrogen chloride (HCl), chlorine (Cl2), hydrogen bromide (HBr), bromine (Br2), and hydrogen fluoride (HF).

Impurity means a substance that is produced coincidentally with the primary product, or is present in a raw material. An impurity does not serve a useful purpose in the production or use of the primary product and is not isolated.

Initial startup means, for new sources, the first time the source begins production. For additions or changes not defined as a new source by this subpart, initial startup means the first time additional or changed equipment is put into operation. Initial startup does not include operation solely for testing equipment. Initial startup does not include subsequent startup (as defined in this section) of process units following malfunctions or process unit shutdowns. Except for equipment leaks, initial startup also does not include subsequent startups (as defined in this section) of process units following changes in product for flexible operation units or following recharging of equipment in batch unit operations.

Low throughput transfer rack means a transfer rack that transfers less than a total of 11.8 million liters per year of liquid containing regulated HAP.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the process unit, whose primary product is a product produced by a source category subject to this subpart, into an individual drain system prior to or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewaters include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of low legs and high point bleeds, draining of pumps into an individual drain system, and draining of portions of the process unit, whose primary product is a product produced by a source category subject to this subpart, for repair.

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.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the total organic HAP in the stored or transferred liquid at the temperature equal to the highest calendar-month average of the liquid storage or

transfer temperature for liquids stored or transferred above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored or transferred at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporation Loss From External Floating-Roof Tanks (incorporated by reference as specified in § 63.14 of subpart A of this part); or

(2) As obtained from standard reference texts; or

(3) As determined by the American Society for Testing and Materials Method D2879–83 (incorporated by reference as specified in § 63.14 of subpart A of this part); or

(4) Any other method approved by the Administrator.

Oil-water separator or *organic-water separator* means a waste management unit, generally a tank used to separate oil or organics from water. An oil-water or organic-water separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to additional waste management units such as an air flotation unit, clarifier, or biological treatment unit. Examples of an oil-water or organic-water separator include, but are not limited to, an American Petroleum Institute separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

On-site means, with respect to records required to be maintained by this subpart, a location within a plant site that encompasses the affected source. On-site includes, but is not limited to, the affected source to which the records pertain, or central files elsewhere at the plant site.

Organic hazardous air pollutant or *organic HAP* means any organic chemicals that are also HAP.

Permitting authority means one of the following:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661) and part 71 of this chapter.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Point of determination means each point where process wastewater exits the process unit, whose primary product is a product produced by a source category subject to this subpart.

NOTE TO DEFINITION FOR POINT OF DETERMINATION: The regulation allows determination of the characteristics of a wastewater stream at the point of determination or downstream of the point of determination if corrections are made for changes in flow rate and annual average concentration of Table 9 compounds (as defined under this subpart) as determined in § 63.144. Such changes include losses by air emissions, reduction of annual average concentration or changes in flow rate by mixing with other water or wastewater streams, and reduction in flow rate or annual average concentration by treating or otherwise handling the wastewater stream to remove or destroy hazardous air pollutants.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device. This release can be one release or a series of releases over a short time period.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices. This definition does not apply to ethylene production affected sources.

Process condenser means a condenser whose primary purpose is to recover

material as an integral part of a process. The condenser must support a vapor-to-liquid phase change for periods of source equipment operation that are above the boiling or bubble point of substance(s). Examples of process condensers include distillation condensers, reflux condensers, process condensers in line prior to the vacuum source, and process condensers used in stripping or flashing operations.

Process unit means the equipment assembled and connected by pipes or ducts to process raw and/or intermediate materials and to manufacture an intended product. A process unit includes more than one unit operation.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit, or part of a process unit during which practice or procedure it is technically feasible to clear process material from the process unit, or part of the process unit, consistent with safety constraints and during which repairs can be effected. The following are not considered process unit shutdowns:

(1) An unscheduled work practice or operational procedure that stops production from a process unit, or part of a process unit, for less than 24 hours.

(2) An unscheduled work practice or operational procedure that would stop production from a process unit, or part of a process unit, for a shorter period of time than would be required to clear the process unit, or part of the process unit, of materials and start up the unit and result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.

(3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream from a unit operation within a source category subject to this subpart. Process vent excludes the following gas stream discharges:

(1) Relief valve discharges;

(2) Leaks from equipment subject to this subpart;

(3) Gas streams exiting a control device complying with this subpart;

(4) Gas streams transferred to other processes (on-site or off-site) for reaction or other use in another process (*i.e.*, for chemical value as a product, isolated intermediate, byproduct, or co-product for heat value);

(5) Gas streams transferred for fuel value (*i.e.*, net positive heating value), use, reuse, or sale for fuel value, use, or reuse. On or after November 19, 2021 this exclusion no longer applies to the Carbon Black Production source category;

(6) Gas streams from storage vessels or transfer racks subject to this subpart;

(7) Gas streams from waste management units subject to this subpart;

(8) Gas streams from wastewater streams subject to this subpart;

(9) Gas streams exiting process analyzers; and

(10) Gas stream discharges that contain less than or equal to 0.005 weight-percent total organic HAP.

Process wastewater means wastewater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Examples are product tank drawdown or feed tank drawdown, water formed during a chemical reaction or used as a reactant, water used to wash impurities from organic products or reactants, equipment washes between batches in a batch process, water used to cool or quench organic vapor streams through direct contact, and condensed steam from jet ejector systems pulling vacuum on vessels containing organics.

Process wastewater stream means a stream that contains process wastewater.

Product means a compound or chemical which is manufactured as the intended product of the applicable production process unit as defined in § 63.1103. By-products, isolated intermediates, impurities, wastes, and trace contaminants are not considered products.

Recapture device means an individual unit of equipment capable of and used for the purpose of recovering chemicals, but not normally for use, reuse, or sale. For example, a recapture device

may recover chemicals primarily for disposal. Recapture devices include, but are not limited to, absorbers, carbon adsorbers, and condensers. For purposes of the monitoring, recordkeeping, and reporting requirements of this subpart, recapture devices are considered recovery devices.

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. For purposes of the monitoring, recordkeeping, and reporting requirements of this subpart, recapture devices are considered recovery devices.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and is not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Shutdown means the cessation of operation of an affected source or equipment that is used to comply with this subpart, or the emptying and degassing of a storage vessel. For the purposes of this subpart, shutdown includes, but is not limited to, periodic maintenance, replacement of equipment, or repair. Shutdown does not include the routine rinsing or washing of equipment in batch operation between batches. Shutdown includes the decoking of ethylene cracking furnaces.

Startup means the setting into operation of a regulated source and/or equipment required or used to comply with this subpart. Startup includes initial startup, operation solely for testing equipment, the recharging of equipment in batch operation, and transitional conditions due to changes in product for flexible operation units.

Storage vessel or *tank*, for the purposes of regulation under the storage vessel provisions of this subpart, means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) that provides structural support and is designed to hold an accumulation of liquids or other materials. Storage vessel includes surge control vessels and bottoms receiver vessels. For the purposes of regulation under the storage vessel provisions of this subpart, storage vessel does not include vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships; pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere; or wastewater storage vessels. Wastewater storage vessels are covered under the wastewater provisions of § 63.1106.

Subsequent startup means any setting into operation of a regulated source and/or equipment required or used to comply with this subpart following the initial startup.

Surge control vessel means a feed drum, recycle drum, or intermediate vessel. Surge control vessels are used within a process unit (as defined in this subpart) when in-process storage, mixing, or management of flow rates or volumes is needed to assist in production of a product.

Table 9 compounds means compounds listed in Table 9 of subpart G of this part.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream, with the concentrations expressed on a carbon basis.

Total resource effectiveness index value or *TRE index value* means a measure of the supplemental total resource requirement per unit reduction of organic HAP associated with a process vent stream, based on vent stream flow rate, emission rate of organic HAP, net heating value, and corrosion properties (whether or not the vent stream contains halogenated compounds), as quantified by the equations given under § 63.1104(j).

Transfer rack means a single system used to fill bulk cargo tanks mounted on or in a truck or railcar. A transfer rack includes all loading arms, pumps, meters, shutoff valves, relief valves,

and other piping and equipment necessary for the transfer operation. Transfer equipment and operations that are physically separate (i.e., do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Unit operation means distinct equipment used in processing, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

Vapor balancing system means a piping system that is designed to collect organic HAP vapors displaced from tank trucks or railcars during loading; and to route the collected organic HAP vapors to the storage vessel from which the liquid being loaded originated, or to compress collected organic HAP vapors and commingle with the raw feed of a production process unit.

Wastewater is either a process wastewater or a maintenance wastewater and means water that:

(1) Contains either:

(i) An annual average concentration of Table 9 compounds (as defined under this subpart) of at least 5 parts per million by weight at the point of determination and has an annual average flow rate of 0.02 liter per minute or greater, or

(ii) An annual average concentration of Table 9 compounds (as defined under this subpart) of at least 10,000 parts per million by weight at the point of determination at any flow rate, and that

(2) Is discarded from a process unit, whose primary product is a product produced by a source category subject to this subpart.

Wastewater stream means a stream that contains wastewater.

[64 FR 34921, June 29, 1999, as amended at 64 FR 63699, 63706, Nov. 22, 1999; 66 FR 55847, Nov. 2, 2001; 67 FR 39305, June 7, 2002; 67 FR 46280, July 12, 2002; 71 FR 20458, Apr. 20, 2006; 79 FR 60922, Oct. 8, 2014; 85 FR 40424, July 6, 2020; 86 FR 66122, Nov. 19, 2021]

§ 63.1102 Compliance schedule.

(a) *General requirements.* Affected sources, as defined in § 63.1103(a)(1)(i) for acetyl resins production, § 63.1103(b)(1)(i) for acrylic and modacrylic fiber production, § 63.1103(c)(1)(i) for hydrogen fluoride production, § 63.1103(d)(1)(i) for polycarbonate production, § 63.1103(e)(1)(i) for ethylene production, § 63.1103(f)(1)(i) for carbon black production, § 63.1103(g)(1)(i) for cyanide chemicals manufacturing, or § 63.1103(h)(1)(i) for spandex production shall comply with the appropriate provisions of this subpart and the subparts referenced by this subpart YY according to the schedule in paragraph (a)(1) or (2) of this section, as appropriate, except as provided in paragraph (b) of this section. Affected sources in ethylene production also must comply according to paragraph (c) of this section. Affected sources in cyanide chemicals manufacturing also must comply according to paragraph (d) of this section. Affected sources in carbon black production also must comply according to paragraph (e) of this section. Proposal and effective dates are specified in table 1 to this section and in paragraph (d) for cyanide chemicals manufacturing affected sources and paragraph (e) for carbon black production affected sources of this section.

(1) *Compliance dates for new and reconstructed sources.* (i) The owner or operator of a new or reconstructed affected source that commences construction or reconstruction after the proposal date, and that has an initial startup before the effective date of standards for an affected source, shall comply with this subpart no later than the applicable effective date in Table 1 to § 63.1102 of this section.

(ii) The owner or operator of a new or reconstructed affected source that has an initial startup after the applicable effective date in Table 1 to § 63.1102 of this section shall comply with this subpart upon startup of the source.

(iii) The owner or operator of an affected source that commences construction or reconstruction after the proposal date, but before the effective date in Table 1 to this section, shall comply with this subpart no later than the date 3 years after the effective date if the conditions in paragraphs (a)(1)(iii) (A) and (B) of this section are met.

(A) The promulgated standards are more stringent than the proposed standards.

(B) The owner or operator complies with this subpart as proposed during the 3-year period immediately after the effective date of standards for the affected source.

(2) *Compliance dates for existing sources.* (i) The owner or operator of an existing affected source shall comply with the requirements of this subpart within 3 years after the effective date of standards for the affected source.

(ii) The owner or operator of an area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source shall be subject to the relevant standards for existing sources under this subpart. Such sources shall comply with the relevant standards within 3 years of becoming a major source.

(b) All acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources that commenced construction or reconstruction on or before January 9, 2014, shall be in compliance with the pressure relief device monitoring requirements of § 63.1107(e)(3) upon initial startup or October 9, 2017, whichever is later, and the equipment leaks requirements of 40 CFR part 63, subpart UU upon initial startup or October 8, 2015, whichever is later. New acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources that commence construction or reconstruction after January 9, 2014, shall be in compliance with the pressure relief device monitoring requirements of § 63.1107(e)(3) upon initial startup or by October 8, 2014, whichever is later.

TABLE 1 TO § 63.1102—SOURCE CATEGORY PROPOSAL AND EFFECTIVE DATES

Source category	Proposal date	Effective date
(a) Acetal Resins Production	October 14, 1998	June 29, 1999.
(b) Acrylic and Modacrylic Fibers Production	October 14, 1998	June 29, 1999.
(c) Hydrogen Fluoride Production	October 14, 1998	June 29, 1999.
(d) Polycarbonate Production	October 14, 1998	June 29, 1999.
(e) Ethylene Production	December 6, 2000	July 12, 2002.
(f) Carbon Black Production	December 6, 2000	July 12, 2002.
(g) Cyanide Chemicals Manufacturing	December 6, 2000	July 12, 2002.
(h) Spandex Production	December 6, 2000	July 12, 2002.

(c) All ethylene production affected sources that commenced construction or reconstruction on or before October 9, 2019, must be in compliance with the requirements listed in paragraphs (c)(1) through (13) of this section upon initial startup or July 6, 2023, whichever is later. All ethylene production affected sources that commenced construction or reconstruction after October 9, 2019, must be in compliance with the requirements listed in paragraphs (c)(1) through (13) of this section upon initial startup, or July 6, 2020, whichever is later.

(1) Overlap requirements specified in § 63.1100(g)(4)(iii) and (7), if applicable.

(2) The storage vessel requirements specified in paragraphs (b)(1)(iii) and (c)(1)(ii) of Table 7 to § 63.1103(e), and the degassing requirements specified in § 63.1103(e)(10).

(3) The ethylene process vent requirements specified in paragraph (d)(1)(ii) of Table 7 to § 63.1103(e).

(4) The transfer rack requirements specified in § 63.1105(a)(5).

(5) The equipment requirements specified in paragraph (f)(1)(ii) of Table 7 to § 63.1103(e) and § 63.1107(h).

(6) The bypass line requirements specified in paragraph (i) of Table 7 to § 63.1103(e), and § 63.1103(e)(6).

(7) The decoking requirements for ethylene cracking furnaces specified in paragraph (j) of Table 7 to § 63.1103(e), and § 63.1103(e)(7) and (8).

(8) The flare requirements specified in § 63.1103(e)(4).

(9) The maintenance vent requirements specified in § 63.1103(e)(5).

(10) The requirements specified in § 63.1103(e)(9).

(11) The requirements in § 63.1108(a)(4), (b)(1)(ii), (b)(2), and (b)(4)(ii)(B).

(12) The recordkeeping requirements specified in § 63.1109(e) through (i).

(13) The reporting requirements specified in § 63.1110(a)(10), (d)(1)(iv) and (v), and (e)(4) through (8).

(d) *Cyanide chemicals manufacturing.* (1) If applicable, all cyanide chemicals manufacturing affected sources that commenced construction or reconstruction on or before January 15, 2021, must be in compliance with the requirements listed in paragraphs (d)(1)(i) and (ii) of this section upon initial startup or November 20, 2022, whichever is later. If applicable, all cyanide chemicals manufacturing affected sources that commenced construction or reconstruction after January 15, 2021, must be in compliance with the requirements listed in paragraphs (d)(1)(i) and (ii) of this section upon initial startup, or November 19, 2021, whichever is later.

(i) Requirements specified in Table 9 to § 63.1103(g), table entry (f)(1)(ii), for new cyanide chemicals manufacturing process units that generate process wastewater.

(ii) Requirements specified in Table 9 to § 63.1103(g), table entry (g), for existing cyanide chemicals manufacturing process units that generate process wastewater.

(2) All cyanide chemicals manufacturing affected sources that commenced construction or reconstruction on or before January 15, 2021, must be in compliance with the requirements listed in paragraphs (d)(2)(i) through (iii) of this section upon initial startup or May 18, 2022, whichever is later. All cyanide chemicals manufacturing affected sources that commenced construction or reconstruction after January 15, 2021, must be in compliance with the requirements listed in paragraphs (d)(2)(i) through (iii) of this section upon initial startup, or November 19, 2021, whichever is later.

(i) The exceptions specified in § 63.1103(g)(6) related to 40 part 63, subparts SS, TT, and UU startup, shutdown, and malfunction requirements.

(ii) The compliance requirements specified in § 63.1108(a)(4), (b)(1)(ii), (b)(2), and (b)(4)(ii)(B).

(iii) The electronic reporting requirements specified in § 63.1110(a)(10).

(e) *Carbon black production.* (1) If applicable, all carbon black production affected sources that commenced construction or reconstruction on or before January 14, 2021, must be in compliance with the requirements listed in paragraphs (e)(1)(i) through (iii) of this section upon initial startup or November 20, 2022, whichever is later. If applicable, all carbon black production affected sources that commenced construction or reconstruction after January 14, 2021, must be in compliance with the requirements listed in paragraphs (e)(1)(i) through (iii) of this section upon initial startup, or November 19, 2021, whichever is later.

(i) The process vent applicability determination requirements specified in § 63.1103(f)(3)(iv).

(ii) The performance test frequency requirements specified in § 63.1108(b)(4)(ii).

(iii) The boiler and process heater tune up requirements specified in § 63.1103(f)(3)(iii).

(2) All carbon black production affected sources that commenced construction or reconstruction on or before January 14, 2021, must be in compliance with the requirements listed in paragraphs (e)(2)(i) through (iv) of this section upon initial startup or May 18, 2022, whichever is later. All carbon black production affected sources that commenced construction or reconstruction after January 14, 2021, must be in compliance with the requirements listed in paragraphs (e)(2)(i) through (iv) of this section upon initial startup, or November 19, 2021, whichever is later.

(i) The exceptions specified in § 63.1103(f)(4) related to 40 part 63, subpart SS, startup, shutdown, and malfunction requirements.

(ii) The exception specified in § 63.1103(f)(5) related to the requirement that a closed vent system route the collected vapors to a control device when demonstrating compliance.

(iii) The compliance requirements specified in § 63.1108(a)(4), (b)(1)(ii), (b)(2), and (b)(4)(ii)(B).

(iv) The electronic reporting requirements specified in § 63.1110(a)(10).

(3) All carbon black production affected sources that commenced construction or reconstruction on or before January 14, 2021, must be in compliance with the requirements specified in line entry (b) in Table 8 to § 63.1103(f) on or before November 19, 2024. All carbon black production affected sources that commenced construction or reconstruction after January 14, 2021, must be in compliance with the requirements specified in line entries (b) and (c) in Table 8 to § 63.1103(f) upon initial startup or November 19, 2021, whichever is later.

[67 FR 46280, July 12, 2002, as amended at 79 FR 60922, Oct. 8, 2014; 85 FR 40425, July 6, 2020; 86 FR 66122, Nov. 19, 2021; 89 FR 23864, Apr. 4, 2024]

§ 63.1103 Source category-specific applicability, definitions, and requirements.

(a) *Acetal resins production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the acetal resins production source category (as defined in paragraph (a)(2) of this section), the affected source shall comprise all emission points, in combination, listed in paragraphs (a)(1)(i)(A) through (D) of this section, that are associated with an acetal resins production process unit located at a major source, as defined in section 112(a) of the Clean Air Act (Act).

(A) All storage vessels that store liquids containing organic HAP. For purposes of regulation, surge control vessels and bottoms receivers that are located as part of the process train prior to the polymer reactor are to be regulated under the front-end process vent provisions.

(B) All process vents from continuous unit operations (front end process vents and back end process vents).

(C) All wastewater streams associated with the acetal resins production process unit as defined in (a)(2) of this section.

(D) Equipment (as defined in § 63.1101 of this subpart) that contains or contacts organic HAP.

(ii) *Compliance schedule.* The compliance schedule for affected sources as defined in paragraph (a)(1)(i) of this section is specified in § 63.1102(a).

(2) *Definitions.*

Acetal resins production means the production of homopolymers and/or copolymers of alternating oxymethylene units. Acetal resins are also known as polyoxymethylenes, polyacetals, and aldehyde resins. Acetal resins are generally produced by polymerizing formaldehyde (HCHO) with the methylene functional group (CH_2) and are characterized by repeating oxymethylene units (CH_2O) in the polymer backbone.

Back end process vent means any process vent from a continuous unit operation that is not a front end process vent up to the final separation of raw materials and by-products from the stabilized polymer.

Front end process vent means any process vent from a continuous unit operation involved in the purification of formaldehyde feedstock for use in the acetal homopolymer process. All front end process vents are restricted to those vents that occur prior to the polymer reactor.

(3) *Requirements.* Table 1 of this section specifies the acetal resins production standards applicability for existing and new sources. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or operator of an affected source is not required to perform tests, TRE calculations or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113. The owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in table 1 of this section.

TABLE 1 TO § 63.1103(a)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACETAL RESINS PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate. . .	And if. . .	Then you must. . .
1. A storage vessel with: 34 cubic meters <capacity.	The maximum true vapor pressure of organic HAP >17.1 kilopascals (for existing sources) or >11.7 kilopascals (for new sources).	a. Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(1) (storage vessel requirements) of this part; or b. Comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A front end process vent from continuous unit operations.	.....	a. Reduce emissions of total organic HAP by using a flare meeting the requirements of subpart SS of this part; or b. Reduce emissions of total organic HAP by 60 weight-percent, or reduce TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part.
3. A back end process vent from continuous unit operations.	The vent stream has a TRE[a] <1.0	a. Reduce emissions of total organic HAP by using a flare meeting the requirements of subpart SS of this part; or b. Reduce emissions of total organic HAP by 98 weight-percent, or reduce TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part; or c. Achieve and maintain a TRE index value greater than 1.0.
4. A back end process vent from continuous unit operations.	1.0 ≤TRE[a] ≤4.0	Monitor and keep records of equipment operating parameters specified to be monitored under subpart SS, §§ 63.990(c)(absorber, condenser, and carbon adsorber monitoring) or 63.995(c) (other noncombustion systems used as a control device monitoring) of this part.
5. Equipment as defined under § 63.1101	The equipment contains or contacts ≥10 weight-percent organic HAP[b], and operates ≤300 hours per year.	Comply with the requirements of subpart TT (national emission standards for equipment leaks (control level 1)) or subpart UU (national emission standards for equipment leaks (control level 2)) of this part.
6. An acetal resins production process unit that generates process wastewater.	The process wastewater stream is a Group 1 or Group 2 wastewater stream.	Comply with the requirements of § 63.1106(a).
7. An acetal resins production process unit that generates maintenance wastewater.	The maintenance wastewater contains organic HAP.	Comply with the requirements of § 63.1106(b).
8. An item of equipment listed in § 63.1106(c)(1).	The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	Comply with the requirements in Table 35 of subpart G of this part.

[a] The TRE is determined according to the procedures specified in § 63.1104(j).
[b] The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

(b) *Acrylic and modacrylic fiber production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the acrylic fibers and modacrylic fibers production (as defined in paragraph (b)(2) of this section) source category, the affected source shall comprise all emission points, in combination, listed in paragraphs (b)(1)(i)(A) through (E) of this section, that are associated with a suspension or solution polymerization process unit that produces acrylic and modacrylic fiber located at a major source as defined in section 112(a) of the Act.

(A) All storage vessels that store liquid containing acrylonitrile or organic HAP.

(B) All process vents from continuous unit operations.

(C) All wastewater streams associated with the acrylic and modacrylic fibers production process unit as defined in (b)(2) of this section.

(D) Equipment (as defined in §63.1101 of this subpart) that contains or contacts acrylonitrile or organic HAP.

(E) All acrylic and modacrylic fiber spinning lines using a spinning solution or suspension having organic acrylonitrile or organic HAP. For the purposes of implementing this paragraph, a spinning line includes the spinning solution filters, spin bath, and the equipment used downstream of the spin bath to wash, dry, or draw the spun fiber.

(ii) *Compliance schedule.* The compliance schedule, for affected sources as defined in paragraph (b)(1)(i) of this section, is specified in §63.1102.

(2) *Definitions.*

Acrylic fiber means a manufactured synthetic fiber in which the fiber-forming substance is any long-chain synthetic polymer composed of at least 85 percent by weight of acrylonitrile units.

Acrylic and modacrylic fibers production means the production of either of the following synthetic fibers composed of acrylonitrile units:

(i) Acrylic fiber.

(ii) Modacrylic fiber.

Acrylonitrile solution polymerization means a process where acrylonitrile and comonomers are dissolved in a solvent to form a polymer solution (typically polyacrylonitrile). The polyacrylonitrile is soluble in the solvent. In contrast to suspension polymerization, the resulting reactor polymer solution (spin dope) is filtered and pumped directly to the fiber spinning process.

Acrylonitrile suspension polymerization means a polymerization process where small drops of acrylonitrile and comonomers are suspended in water in the presence of a catalyst where they polymerize under agitation. Solid beads of polymer are formed in this suspension reaction which are subsequently filtered, washed, refiltered, and dried. The beads must be subsequently redissolved in a solvent to create a spin dope prior to introduction to the fiber spinning process.

Fiber spinning line means the group of equipment and process vents associated with acrylic or modacrylic fiber spinning operations. The fiber spinning line includes (as applicable to the type of spinning process used) the blending and dissolving tanks, spinning solution filters, wet spinning units, spin bath tanks, and the equipment used downstream of the spin bath to wash, dry, or draw the spun fiber.

In organic hazardous air pollutant or in organic HAP service means, for acrylic and modacrylic fiber production affected sources, that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight of total organic HAP as determined according to the provisions of §63.180(d). The provisions of §63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Modacrylic fiber means a manufactured synthetic fiber in which the fiber-forming substance is any long-chain synthetic polymer composed of at least 35 percent by weight of acrylonitrile units but less than 85 percent by weight of acrylonitrile units.

Seal means, for acrylic and modacrylic fiber production affected sources complying with the requirements of §63.1033(b) or §63.167(a) on or after October 8, 2014, that instrument monitoring of the open-ended valve or line conducted according to the method

specified in § 63.1023(b) and, as applicable, § 63.1023(c), or § 63.180(b) and, as applicable, § 63.180(c), indicates no readings of 500 parts per million or greater.

Spin dope means the liquid mixture of polymer and solvent that is fed to the spinneret to form the acrylic and modacrylic fibers.

(3) *Requirements.* An owner or operator of an affected source must comply with the requirements of paragraph (b)(3)(i) or (ii) of this section.

(i) Table 2 of this section specifies the acrylic and modacrylic fiber production source category control requirement applicability for both existing and new sources. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or operator of an affected source is not required to perform tests, or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113. The owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in table 2 of this section.

TABLE 2 TO § 63.1103(b)(3)(i)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (b)(3)(i) OF THIS SECTION?

If you own or operate. . .	And if. . .	Then you must. . .
1. A storage vessel	The stored material contains organic HAP.	a. Reduce emissions of organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control device meeting the requirements of subpart SS of this part, as specified in § 63.982(a)(1) (storage vessel requirements), or 95 weight-percent or greater by venting through a closed vent system to a recovery device meeting the requirements of subpart SS, § 63.993 (recovery device requirements); or b. Comply with the requirements of subpart WW of this part.
2. A process vent from continuous unit operations (halogenated).	The vent steam has a mass emission rate of halogen atoms contained in organic compounds ≥0.45 kilograms per hour,[a] and an organic HAP concentration ≥50 parts per million by volume[b] and an average flow rate ≥0.005 cubic meters per minute.	a. Reduce emissions of organic HAP or TOC as specified for nonhalogenated process vents from continuous unit operations (other than by using a flare) by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS of this part, § 63.994 (halogen reduction devices requirements) that reduces hydrogen halides and halogens by 99 weight-percent or to less than 0.45 kilograms per year, whichever is less stringent; or b. Reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS of this part, § 63.994 (halogen reduction devices requirements) and then complying with the requirements specified for process vents from continuous unit operations (nonhalogenated).

TABLE 2 TO § 63.1103(b)(3)(i)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (b)(3)(i) OF THIS SECTION?—Continued

If you own or operate. . .	And if. . .	Then you must. . .
3. A process vent from continuous unit operations (nonhalogenated).	The vent steam has a mass emission rate of halogen atoms contained in organic compounds <0.45 kilograms per hour,[a] and an organic HAP concentration ≥50 parts per million by volume[b] and an average flow rate ≥0.005 cubic meters per minute.	a. Reduce emissions of organic HAP by using a flare meeting the requirements of subpart SS of this part, § 63.987 (flare requirements); or b. Reduce emissions of organic HAP by 98 weight-percent, or reduce TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(a)(2) (process vent requirements).
4. A fiber spinning line that is a new or reconstructed source.	The lines use a spin dope produced from either a suspension polymerization process or solution polymerization process.	a. Reduce organic HAP emissions by 85 weight-percent or more. (For example, you may enclose the spinning and washing areas of the spinning line (as specified in paragraph (b)(4) of this section) and vent through a closed vent system and use any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(a).); or b. Reduce organic HAP emissions from the spinning line to less than or equal to 0.25 kilograms of organic HAP per megagram (0.5 pounds of organic HAP per ton) of acrylic and modacrylic fiber produced; or c. Reduce the organic HAP concentration of the spin dope to less than 100 ppmw.
5. A fiber spinning line that is an existing source.	The spinning line uses a spin dope produced from a solution polymerization process.	Reduce organic HAP emissions from the spinning line to less than or equal to 20 kilograms of organic HAP per megagram (40 pounds of organic HAP per ton) of acrylic and modacrylic fiber produced.
6. A fiber spinning line that is an existing source.	The spinning line uses a spin dope produced from a suspension polymerization process.	a. Reduce the organic HAP concentration of the spin dope to less than 100 ppmw;[b] or b. Reduce organic HAP emissions from the spinning line to less than or equal to 0.25 kilograms of organic HAP per megagram of acrylic and modacrylic fiber produced.
7. Equipment as defined under § 63.1101 (with the differences for pressure relief devices described in item 11 below).	It contains or contacts ≥10 weight-percent organic HAP,[c] and operates ≥300 hours per year.	a. Comply with either § 63.1008 or § 63.1027 for connectors in gas and vapor service and in light liquid service, and comply with the requirements of subpart UU of this part, except § 63.1030, for all other applicable equipment; or b. Comply with the requirements in subpart H of this part, except § 63.165, as provided by the regulatory overlap provisions in § 63.1100(g)(4)(ii).
8. An acrylic and modacrylic fiber production process unit that generates process wastewater.	The process wastewater stream is a Group 1 or Group 2 wastewater stream.	Comply with the requirements of § 63.1106(a).
9. An acrylic and modacrylic fiber production process unit that generates maintenance wastewater.	The maintenance wastewater contains organic HAP.	Comply with the requirements of § 63.1106(b).
10. An item of equipment listed in § 63.1106(c)(1).	The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	Comply with the requirements in Table 35 of subpart G of this part.

TABLE 2 TO § 63.1103(b)(3)(i)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (b)(3)(i) OF THIS SECTION?—Continued

If you own or operate. . .	And if. . .	Then you must. . .
11. Pressure relief devices	The pressure relief device is in organic HAP service.	Comply with § 63.1107(e).

[a] The mass emission rate of halogen atoms contained in organic compounds is determined according to the procedures specified in § 63.1104(i).
[b] The percent by weight organic HAP is determined according to the procedures specified in § 63.1107.
[c] The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

(ii) The owner or operator must control organic HAP emissions from the acrylic and modacrylic fibers production facility by meeting the applicable requirements specified in table 3 of this section. The owner or operator must determine the facility organic HAP emission rate using the procedures specified in paragraph (b)(5) of this section. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or operator of an affected source does not have to perform tests, TRE calculations or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

TABLE 3 TO § 63.1103(b)(3)(ii)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (b)(3)(ii) OF THIS SECTION?

If you own or operate . . .	Then you must control total organic HAP emissions from the affected source by . . .
1. An acrylic and modacrylic fibers production affected source and your facility is an existing source.	Meeting all of following requirements: a. Reduce total organic HAP emissions from all affected storage vessels, process vents, wastewater streams associated with the acrylic and modacrylic fibers production process unit as defined in paragraph (b)(2) of this section, and fiber spinning lines operated in your acrylic and modacrylic fibers production facility to less than or equal to 0.5 kilograms (kg) of organic HAP per megagram (Mg) of fiber produced. b. Determine the facility organic HAP emission rate in accordance with the requirements specified in paragraph (b)(5) of this section.
2. An acrylic and modacrylic fibers production affected source and your facility is a new source.	Meeting all of following requirements: a. Reduce total organic HAP emissions from all affected storage vessels, process vents, wastewater streams associated with the acrylic and modacrylic fibers production process unit as defined in paragraph (b)(2) of this section, and fiber spinning lines operated in your acrylic and modacrylic fibers production facility to less than or equal to 0.25 kilograms (kg) of organic HAP per megagram (Mg) of fiber produced. b. Determine the facility organic HAP emission rate in accordance with the requirements specified in paragraph (b)(5) of this section.
3. Equipment as defined under § 63.1101 and it contains or contacts >10 weight-percent organic HAP,[a] and operates >300 hours per year (with the differences for pressure relief devices described in item 4 below).	a. Comply with either § 63.1008 or § 63.1027 for connectors in gas and vapor service and in light liquid service, and comply with subpart UU of this part, except § 63.1030, for all other applicable equipment; or b. Comply with the requirements in subpart H of this part, except § 63.165, as provided by the regulatory overlap provisions in § 63.1100(g)(4)(ii).
4. A pressure relief device in organic HAP service.	Complying with § 63.1107(e).

(4) *Fiber spinning line enclosure requirements.* For an owner or operator of a new or modified source electing to comply with paragraph (b)(3)(i) of this section, the fiber spinning line enclosure must be designed and operated to meet the requirements specified in paragraphs (b)(4)(i) through (iv) of this section.

(i) The enclosure must cover the spinning and washing areas of the spinning line.

(ii) The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' in 40 CFR 52.741, appendix B.

(iii) The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure.

(iv) The owner or operator must perform the verification procedure for the enclosure as specified in section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' initially when the enclosure is first installed and, thereafter, annually.

(5) *Facility organic HAP emission rate determination*. For an owner or operator electing to comply with paragraph (b)(3)(ii) of this section, the facility organic HAP emission rate must be determined using the requirements specified in paragraphs (b)(5)(i) through (iii) of this section.

(i) The owner or operator must prepare an initial determination of the facility organic HAP emission rate.

(ii) Whenever changes to the acrylic or modacrylic fiber production operations at the facility could potentially cause the facility organic HAP emission rate to exceed the applicable limit of kilogram of organic HAP per Megagram of fiber produced, the owner or operator must prepare a new determination of the facility organic HAP emission rate.

(iii) For each determination, the owner or operator must prepare and maintain at the facility site sufficient process data, emissions data, and any other documentation necessary to support the facility organic HAP emission rate calculation.

(c) *Hydrogen fluoride production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source*—For the hydrogen fluoride production (as defined in paragraph (c)(2) of this section) source category, the affected source shall comprise all emission points, in combination, listed in paragraphs (c)(1)(i)(A) through (D) of this section, that are associated with a hydrogen fluoride production process unit located at a major source as defined in section 112(a) of the Act.

(A) All storage vessels used to accumulate or store hydrogen fluoride.

(B) All process vents from continuous unit operations associated with hydrogen fluoride recovery and refining operations. These process vents include vents on condensers, distillation units, and water scrubbers.

(C) All transfer racks used to load hydrogen fluoride into tank trucks or railcars.

(D) Equipment in hydrogen fluoride service (as defined in paragraph (c)(2) of this section).

(2) *Definitions.*

Connector means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purposes of this subpart.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in hydrogen fluoride service; and any control devices or closed-vent systems used to comply with this subpart.

Hydrogen fluoride production means a process engaged in the production and recovery of hydrogen fluoride by reacting calcium fluoride with sulfuric acid. For the purpose of implementing this subpart, hydrogen fluoride production is not a process that produces gaseous hydrogen fluoride for direct reaction with hydrated aluminum to form aluminum fluoride (i.e., the hydrogen fluoride is not recovered as an intermediate or final product prior to reacting with the hydrated aluminum).

In hydrogen fluoride service means that a piece of equipment either contains or contacts a hydrogen fluoride process fluid (liquid or gas).

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems.

Kiln seal means the mechanical or hydraulic seals at both ends of the kiln, designed to prevent the infiltration of moisture and air through the interface of the rotating kiln and stationary pipes and equipment attached to the kiln during normal vacuum operation of the kiln (operation at an internal pressure of at least 0.25 kilopascal [one inch of water] below ambient pressure).

Leakless pump means a pump whose seals are submerged in liquid, a magnetically-driven pump, a pump equipped with a dual mechanical seal system that includes a barrier fluid system, a canned pump, or other pump that is designed with no externally actuated shaft penetrating the pump housing.

Open-ended valve or line means any valve, except relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the relief device. This release can be one release or a series of releases over a short time period due to a malfunction in the process.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Relief device or valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Repaired for the purpose of this regulation means equipment is adjusted, or otherwise altered, to eliminate a leak identified by sensory monitoring.

Sampling connection system means an assembly of equipment within a process unit or affected facility used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensory monitoring means the detection of a potential leak to the atmosphere by walk-through visual, audible, or olfactory monitoring. Comprehensive component-by-component inspection is not required.

Shift means the time a shift operator normally works, typically 8 or 12 hours.

(3) *Requirements.* Table 4 of this section specifies the hydrogen fluoride production source category applicability and control requirements for both existing and new sources. The owner or operator must control hydrogen fluoride emissions from each affected source emission point as specified in table 4. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Specific monitoring, recordkeeping, and reporting requirements are specified in table 4. Minimization of emissions from startups, shutdowns, and malfunctions, including those resulting from kiln seals must be addressed in the startup, shutdown, and malfunction plan required by § 63.1111; the plan must also establish reporting and recordkeeping of such events. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

TABLE 4 TO § 63.1103(c)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A HYDROGEN FLUORIDE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
1. A storage vessel	The stored material is hydrogen fluoride	Reduce emissions of hydrogen fluoride by venting displacement emissions created by normal filling or emptying activities through a closed-vent system to a recovery system or wet scrubber that is designed and operated to achieve a 99 weight-percent removal efficiency. The minimum liquid flow rate to the scrubber that achieves a 99 weight-percent removal efficiency shall be established, and may be done so by design analysis. The liquid flow rate to the scrubber shall be continuously monitored and records maintained according to §§ 63.996 and 63.998(b), (c), and (d)(3) of 40 CFR subpart SS of this part. The Periodic Report specified in § 63.1110(a)(5) of this subpart shall include the information specified in § 63.999(c) of 40 CFR subpart SS of this part, as applicable.
2. A process vent from continuous unit operations.	The vent stream is from hydrogen fluoride recovery and refining vessels.	Reduce emissions of hydrogen fluoride from the process vent by venting emissions through a closed-vent system to a wet scrubber that is designed and operated to achieve a 99 weight-percent removal efficiency. Monitoring, recordkeeping, and reporting of wet scrubber operation shall be in accordance with the requirements stated above for a wet scrubber controlling hydrogen fluoride emissions from a storage vessel.
3. A transfer rack	The transfer rack is associated with bulk hydrogen fluoride liquid loading into tank trucks and rail cars.	Reduce emissions of hydrogen fluoride by venting emissions through a closed-vent system to a recovery system or wet scrubber that is designed and operated to achieve a 99 weight-percent removal efficiency. Monitoring, recordkeeping, and reporting of wet scrubber operation shall be in accordance with the requirements stated above for a wet scrubber controlling HF emissions from a storage vessel. You also must load hydrogen fluoride into only tank trucks and railcars that have a current certification in accordance with the U.S. DOT pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars; or have been demonstrated to be vapor-tight (i.e. will sustain a pressure change of not more than 750 Pascals within 5 minutes after it is pressurized to a minimum or 4,500 Pascals) within the preceding 12 months.

TABLE 4 TO § 63.1103(c)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A HYDROGEN FLUORIDE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
4. Equipment	It is in hydrogen fluoride service and operates ≥300 hours per year and is not in vacuum service.	Control hydrogen fluoride emissions by using leakless pumps and by implementing a sensory monitoring leak detection program. Equipment that is excluded from sensory monitoring because it operates less than 300 hours per year or is in vacuum service shall be identified by list, location, or other method and the identity shall be recorded. An owner or operator is required to perform sensory monitoring at least once every shift, but no later than within 15 days. When a leak is detected, repair must begin within one hour and be completed as soon as practical. A record shall be kept of each leak detected and repaired including: equipment identification number, date and time the leak was detected and that repair was initiated, and the date of successful repair.

(d) *Polycarbonate production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the polycarbonate production (as defined in paragraph (d)(2) of this section) source category, the affected source shall comprise all emission points, in combination, listed in paragraphs (d)(1)(i)(A) through (D) of this section, that are part of a polycarbonate production process unit located at a major source as defined in section 112(a) of the Act. For the purposes of this rule, a polycarbonate production process unit is a unit that produces polycarbonate by interfacial polymerization from bisphenols and phosgene. Phosgene production units that are associated with polycarbonate production process units are considered to be part of the polycarbonate production process. A phosgene production unit consists of the reactor in which phosgene is formed and all equipment (listed in paragraphs (d)(1)(i)(A) through (D) of this section) downstream of the reactor that provides phosgene for the production of polycarbonate. Therefore, for the purposes of this rule, such a phosgene production unit is considered to be a polycarbonate production process unit.

(A) All storage vessels that store liquids containing organic HAP.

(B) All process vents from continuous and batch unit operations.

(C) All wastewater streams.

(D) Equipment (as defined in § 63.1101 of this subpart) that contains or contacts organic HAP.

(ii) *Compliance schedule.* The compliance schedule, for affected sources as defined in paragraph (d)(1)(i) of this section, is specified in § 63.1102.

(2) *Definitions.*

In organic hazardous air pollutant or in organic HAP service means, for polycarbonate production affected sources, that a piece of equipment either contains or contracts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of § 63.180(d). The provisions of § 63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Polycarbonate production means a process engaged in the production of a special class of polyester formed from any dihydroxy compound and any carbonate diester or by ester exchange. Polycarbonate may be produced by solution or emulsion polymerization, although other methods may be used. A typical method for the manufacture of polycarbonate includes the reaction of bisphenol-A with phosgene in the presence of pyridine or other catalyst to form polycarbonate. Methylene chloride or other solvents are used in this polymerization reaction.

Seal means, for polycarbonate production affected sources complying with the requirements of § 63.1033(b) or § 63.167(a) or after October 8, 2014, that instrument monitoring of the open-ended valve or line conducted according to the method specified in § 63.1023(b) and, as applicable, § 63.1023(c), or § 63.180(b) and, as applicable, § 63.180(c), indicates no readings of 500 parts per million or greater.

(3) *Requirements.* Tables 5 and 6 of this section specify the applicability criteria and standards for existing and new sources within the polycarbonate production source category. The owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in tables 5 and 6. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or operator of an affected source is not required to perform tests, TRE calculations or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

TABLE 5 TO § 63.1103(d)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION EXISTING AFFECTED SOURCE?

If you own or operate...	And if...	Then you must...
1. A storage vessel with: 75 cubic meters ≤capacity <151 cubic meters.	27.6 kilopascals ≤maximum true vapor pressure of total organic HAP <76.6 kilopascals.	Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(1) (storage vessel requirements) of this part; or comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A storage vessel with: 151 cubic meters ≤capacity.	The maximum true vapor pressure of total organic HAP ≥5.2 kilopascals.	Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(1) (storage vessel requirements) of this part
3. A storage vessel with: 75 cubic meters ≤capacity <151 cubic meters.	The maximum true vapor pressure of total organic HAP ≥76.6 kilopascals.	Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(1) (storage vessel requirements) of this part.

TABLE 5 TO § 63.1103(d)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION EXISTING AFFECTED SOURCE?—Continued

If you own or operate...	And if...	Then you must...
4. A process vent from continuous unit operations or a combined vent stream [a] (halogenated).	The vent stream has a TRE [b c] ≤ 2.7	a. Reduce emissions of total organic HAP by 98 weight-percent, or reduce total organic HAP to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(c)(2) and (e); and then vent emissions from those control device(s) through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994, that reduces hydrogen halides and halogens by 99 weight-percent or to less than 0.45 kilograms per hour,[d] whichever is less stringent; or
		b. Reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS of this part, § 63.994; and then vent emissions from those control device(s) through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(c)(2) and (e), that reduces emissions of total organic HAP by 98 weight-percent, or reduce total organic HAP or TOC to a concentration of 20 parts per million by volume, whichever is less stringent; or
		c. Achieve and maintain a TRE index value greater than 2.7.
5. A process vent from continuous unit operations or a combined vent stream [a] (nonhalogenated).	The vent stream has a TRE [b c] ≤ 2.7	a. Reduce emissions of total organic HAP by 98 weight-percent; or reduce total organic HAP to a concentration of 20 parts per million by volume; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(a)(2) (process vent requirements); or
		b. Achieve and maintain a TRE index value greater than 2.7.
6. A process vent from continuous unit operations or a combined vent stream [a].	2.7 < TRE [b c] ≤ 4.0	Monitor and keep records of equipment operating parameters specified to be monitored under subpart SS of this part, §§ 63.982(e) and 63.993(c) (absorbers, condensers, carbon adsorbers and other recovery devices used as final recovery devices).
7. Equipment as defined under § 63.1101 (with the differences for pressure relief devices described in item 11 below).	The equipment contains or contacts ≥5 weight-percent total organic HAP,[e] and operates ≥300 hours per year.	a. Comply with either § 63.1008 or § 63.1027 for connectors in gas and vapor service and in light liquid service, and comply with the requirements of subpart UU of this part, except § 63.1030, for all other applicable equipment; or
		b. Comply with the requirements in subpart H of this part, except § 63.165, as provided by the regulatory overlap provisions in § 63.1100(g)(4)(ii).

TABLE 5 TO § 63.1103(d)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION EXISTING AFFECTED SOURCE?—Continued

If you own or operate...	And if...	Then you must...
8. A polycarbonate production process unit that generates process wastewater.	The process wastewater stream is a Group 1 or a Group 2 wastewater stream.	Comply with the requirements of § 63.1106(a).
9. A polycarbonate production process unit that generates maintenance wastewater.	The maintenance wastewater contains organic HAP.	Comply with the requirements of § 63.1106(b).
10. An item of equipment listed in § 63.1106(c)(1).	The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	Comply with the requirements in Table 35 of subpart G of this part.
11. Pressure relief devices	The pressure relief device is in organic HAP service.	Comply with § 63.1107(e).

[a] Combined vent streams shall use the applicability determination procedures and methods for process vents from continuous unit operations (§ 63.1104).

[b] The TRE equation coefficients for halogenated streams (table 1 of § 63.1104(j)(1)) shall be used to calculate the TRE index value.

[c] The TRE is determined according to the procedures specified in § 63.1104(j). If a dryer is manifolded with such vents, and the vent is routed to a recovery, recapture, or combustion device, then the TRE index value for the vent must be calculated based on the properties of the vent stream (including the contributions of the dryer). If a dryer is manifolded with other vents and not routed to a recovery, recapture, or combustion device, then the TRE index value must be calculated excluding the contributions of the dryer. The TRE index value for the dryer must be calculated separately in this case.

[d] The mass emission rate of halogen atoms contained in organic compounds is determined according to the procedures specified in § 63.1104(i).

[e] The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

TABLE 6 TO § 63.1103(d)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION NEW AFFECTED SOURCE?

If you own or operate. . .	And if. . .	Then you must. . .
1. A storage vessel with: 38 cubic meters ≤capacity <151 cubic meters.	13.1 kilopascals ≤maximum true vapor pressure of total organic HAP <76.6 kilopascals.	a. Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(1) (storage vessel requirements) of this part; or b. Comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A storage vessel with: 151 cubic meters ≤capacity.	The maximum true vapor pressure of total organic HAP is ≥5.2 kilopascals.	Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(1) (storage vessel requirements) of this part.
3. A storage vessel with: 38 cubic meters ≤capacity <151 cubic meters.	The maximum true vapor pressure of total organic HAP is ≥76.6 kilopascals.	Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(1) (storage vessel requirements) of this part.

TABLE 6 TO § 63.1103(d)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION NEW AFFECTED SOURCE?—Continued

If you own or operate. . .	And if. . .	Then you must. . .
4. A process vent from continuous unit operations or a combined vent stream [a] (halogenated).	The vent stream has a TRE [b c] ≤9.6	a. Reduce emissions of total organic HAP by 98 weight-percent, or reduce total organic HAP to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(c)(2) and (e); and then vent emissions from those control device(s) through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994, that reduces hydrogen halides and halogens by 99 weight-percent or to less than 0.45 kilograms per hour,[d] whichever is less stringent; or b. Reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS of this part, § 63.994; and then vent emissions from those control device(s) through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(c)(2) and (e), that reduces emissions of total organic HAP by 98 weight-percent, or reduce total organic HAP or TOC to a concentration of 20 parts per million by volume, whichever is less stringent; or c. Achieve and maintain a TRE index value greater than 9.6.
5. A process vent from continuous unit operations or a combined vent stream [a] (nonhalogenated).	The vent stream has a TRE [b c] ≤9.6	a. Reduce emissions of total organic HAP by 98 weight-percent; or reduce total organic HAP to a concentration of 20 parts per million by volume; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(a)(2) (process vent requirements); or b. Achieve and maintain a TRE index value greater than 9.6.
6. Equipment as defined under § 63.1101 (with the differences for pressure relief devices described in item 6 below).	The equipment contains or contacts ≥5 weight-percent total organic HAP [e], and operates ≥300 hours per year.	a. Comply with either § 63.1008 or § 63.1027 for connectors in gas and vapor service and in light liquid service, and comply with the requirements of subpart UU of this part, except § 63.1030, for all other applicable equipment; or b. Comply with the requirements in subpart H of this part, except § 63.165, as provided by the regulatory overlap provisions in § 63.1100(g)(4)(ii).
7. Pressure relief devices	The pressure relief device is in organic HAP service.	Comply with § 63.1107(e).

[a] Combined vent streams shall use the applicability determination procedures and methods for process vents from continuous unit operations (§ 63.1104).

[b] The TRE equation coefficients for halogenated streams (Table 1 of § 63.1104(j)(1) of this subpart) shall be used to calculate the TRE index value.

[c] The TRE is determined according to the procedures specified in § 63.1104(j). If a dryer is manifolded with such vents, and the vent is routed to a recovery, recapture, or combustion device, then the TRE index value for the vent must be calculated based on the properties of the vent stream (including the contributions of the dryer). If a dryer is manifolded with other vents and not routed to a recovery, recapture, or combustion device, then the TRE index value must be calculated excluding the contributions of the dryer. The TRE index value for the dryer must be calculated separately in this case.

[d] The mass emission rate of halogen atoms contained in organic compounds is determined according to the procedures specified in § 63.1104(i).

[e] The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

(e) *Ethylene production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the ethylene production (as defined in paragraph (e)(2) of this section) source category, the affected source comprises all emission points listed in paragraphs (e)(1)(i)(A) through (G) of this section that are associated with an ethylene production unit that is located at a major source, as defined in section 112(a) of the Act.

(A) All storage vessels (as defined in § 63.1101) that store liquids containing organic HAP.

(B) All ethylene process vents (as defined in paragraph (e)(2) of this section) from continuous unit operations.

(C) All transfer racks (as defined in paragraph (e)(2) of this section) that load HAP-containing material.

(D) Equipment (as defined in § 63.1101) that contains or contacts organic HAP.

(E) All waste streams (as defined in paragraph (e)(2) of this section) associated with an ethylene production unit.

(F) All heat exchange systems (as defined in § 63.1082(b)) associated with an ethylene production unit.

(G) All ethylene cracking furnaces and associated decoking operations.

(ii) *Exceptions.* The emission points listed in paragraphs (e)(1)(ii) (A) through (L) of this section are in the ethylene production source category but are not subject to the requirements of paragraph (e)(3) of this section.

(A) Equipment that is located within an ethylene production unit that is subject to this subpart but does not contain organic HAP.

(B) Stormwater from segregated sewers.

(C) Water from fire-fighting and deluge systems in segregated sewers.

(D) Spills.

(E) Water from safety showers.

(F) Water from testing of fire-fighting and deluge systems.

(G) Vessels storing organic liquids that contain organic HAP as impurities.

(H) Transfer racks, loading arms, or loading hoses that only transfer liquids containing organic HAP as impurities.

(I) Transfer racks, loading arms, or loading hoses that vapor balance during all transfer operations.

(J) Air emissions from all ethylene cracking furnaces.

(K) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere.

(L) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships.

(iii) *Exclusions.* The provisions of this subpart do not apply to process units and emission points subject to subparts F, G, H, I and CC of this part.

(iv) *Compliance schedule.* The compliance schedule for the ethylene production source category is specified in § 63.1102.

(2) *Definitions.*

Decoking operation means the coke combustion activity that occurs inside the radiant tube(s) in the ethylene cracking furnace firebox. Coke combustion activities during decoking can also occur in other downstream equipment such as the process gas outlet piping and transfer line exchangers or quench points.

Ethylene process vent means a gas stream with a flow rate greater than 0.005 standard cubic meters per minute containing greater than 20 parts per million by volume HAP that is continuously discharged during operation of an ethylene production unit. On and after July 6, 2023, ethylene process vent means a gas stream with a flow rate greater than 0.005 standard cubic meters per minute containing greater than 20 parts per million by volume HAP that is continuously or periodically discharged during operation of an ethylene production unit. Ethylene process vents are gas streams that are discharged to the atmosphere (or the point of entry into a control device, if any) either directly or after passing

through one or more recovery devices. Ethylene process vents do not include:

(A) Pressure relief device discharges;

(B) Gaseous streams routed to a fuel gas system, including any flares using fuel gas, of which less than 50 percent of the fuel gas is derived from an ethylene production unit;

(C) Gaseous streams routed to a fuel gas system whereby any flares using fuel gas, of which 50 percent or more of the fuel gas is derived from an ethylene production unit, comply with § 63.1103(e)(4) beginning no later than the compliance dates specified in § 63.1102(c);

(D) Leaks from equipment regulated under this subpart;

(E) Episodic or nonroutine releases such as those associated with startup, shutdown, and malfunction until July 6, 2023;

(F) In situ sampling systems (online analyzers) until July 6, 2023; and

(G) Coke combustion emissions from decoking operations beginning no later than the compliance dates specified in § 63.1102(c).

Ethylene production or production unit means a chemical manufacturing process unit in which ethylene and/or propylene are produced by separation from petroleum refining process streams or by subjecting hydrocarbons to high temperatures in the presence of steam. The ethylene production unit includes the separation of ethylene and/or propylene from associated streams such as a C_4 product, pyrolysis gasoline, and pyrolysis fuel oil. Ethylene production does not include the manufacture of SOCMI chemicals such as the production of butadiene from the C_4 stream and aromatics from pyrolysis gasoline.

Force majeure event means a release of HAP, either directly to the atmosphere from a pressure relief device or discharged via a flare, that is demonstrated to the satisfaction of the Administrator to result from an event beyond the owner or operator's control, such as natural disasters; acts of war or terrorism; loss of a utility external to the ethylene production unit (*e.g.*, external power curtailment), excluding power curtailment due to an interruptible service agreement; and fire or explosion originating at a near or adjoining facility outside of the ethylene production unit that impacts the ethylene production unit's ability to operate.

Organic HAP means the compounds listed in Table 1 to subpart XX of this part.

Periodically discharged means gas stream discharges that are intermittent for which the total organic HAP concentration is greater than 20 parts per million by volume and total volatile organic compound emissions are 50 pounds per day or more. These intermittent discharges are associated with routine operations, maintenance activities, startups, shutdowns, malfunctions, or process upsets and do not include pressure relief device discharges or discharges classified as maintenance vents.

Pressure-assisted multi-point flare means a flare system consisting of multiple flare burners in staged arrays whereby the vent stream pressure is used to promote mixing and smokeless operation at the flare burner tips. Pressure-assisted multi-point flares are designed for smokeless operation at velocities up to Mach = 1 conditions (*i.e.*, sonic conditions), can be elevated or at ground level, and typically use cross-lighting for flame propagation to combust any flare vent gases sent to a particular stage of flare burners.

Pressure relief device means a valve, rupture disk, or similar device used only to release an unplanned, nonroutine discharge of gas from process equipment in order to avoid safety hazards or equipment damage. A pressure relief device discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause. Such devices include conventional, spring-actuated relief valves, balanced bellows relief valves, pilot-operated relief valves, rupture disks, and breaking, buckling, or shearing pin devices. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Radiant tube(s) means any portion of the tube coil assembly located within the ethylene cracking furnace firebox whereby a thermal cracking reaction of hydrocarbons (in the presence of steam) occurs. Hydrocarbons and steam pass through the radiant tube(s)

of the ethylene cracking furnace during normal operation and coke is removed from the inside of the radiant tube(s) during decoking operation.

Relief valve means a type of pressure relief device that is designed to reclose after the pressure relief.

Transfer rack means the collection of loading arms and loading hoses at a single loading rack that is used to fill tank trucks and/or railcars with organic HAP. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves. Transfer rack does not include racks, arms, or hoses that contain organic HAP only as impurities; or racks, arms, or hoses that vapor balance during all loading operations.

Waste means any material resulting from industrial, commercial, mining, or agricultural operations, or from community activities, that is discarded or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded, recycled, or discharged.

Waste stream means the waste generated by a particular process unit, product tank, or waste management unit. The characteristics of the waste stream (e.g., flow rate, HAP concentration, water content) are determined at the point of waste generation. Examples of a waste stream include process wastewater, product tank drawdown, sludge and slop oil removed from waste management units, and landfill leachate.

(3) *Requirements.* The owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in Table 7 to this section. An owner or operator must perform the applicability assessment procedures and methods for process vents specified in §63.1104, except for paragraphs (d), (g), (h) through (j), (l)(1), and (n). An owner or operator must perform the applicability assessment procedures and methods for equipment leaks specified in §63.1107. General compliance, recordkeeping, and reporting requirements are specified in §§63.1108 through 63.1112. Before July 6, 2023, minimization of emissions from startup, shutdown, and malfunctions must be addressed in the startup, shutdown, and malfunction plan required by §63.1111; the plan must also establish reporting and recordkeeping of such events. A startup, shutdown, and malfunction plan is not required on and after July 6, 2023 and the requirements specified in §63.1111 no longer apply; however, for historical compliance purposes, a copy of the plan must be retained and available on-site for five years after July 6, 2023. Except as specified in paragraph (e)(4)(i) of this section, procedures for approval of alternate means of emission limitations are specified in §63.1113.

(4) *Flares.* Beginning no later than the compliance dates specified in §63.1102(c), if a steam-assisted, air-assisted, non-assisted, or pressure-assisted multi-point flare is used as a control device for an emission point subject to the requirements in Table 7 to this section, then the owner or operator must meet the applicable requirements for flares as specified in §§63.670 and 63.671 of subpart CC, including the provisions in Tables 12 and 13 to subpart CC of this part, except as specified in paragraphs (e)(4)(i) through (xiv) of this section. This requirement also applies to any flare using fuel gas from a fuel gas system, of which 50 percent or more of the fuel gas is derived from an ethylene production unit, being used to control an emission point subject to the requirements in Table 7 of this section. For purposes of compliance with this paragraph, the following terms are defined in §63.641 of subpart CC: Assist air, assist steam, center steam, combustion zone, combustion zone gas, flare, flare purge gas, flare supplemental gas, flare sweep gas, flare vent gas, lower steam, net heating value, perimeter assist air, pilot gas, premix assist air, total steam, and upper steam.

(i) The owner or operator may elect to comply with the alternative means of emissions limitation requirements specified in of §63.670(r) of subpart CC in lieu of the requirements in §63.670(d) through (f) of subpart CC, as applicable. However, instead of complying with §63.670(r)(3) of subpart CC, the owner or operator must submit the alternative means of emissions limitation request following the requirements in §63.1113.

(ii) Instead of complying with §63.670(o)(2)(i) of subpart CC, the owner or operator must develop and implement the flare management plan no later than the compliance dates specified in §63.1102(c).

(iii) Instead of complying with §63.670(o)(2)(iii) of subpart CC, if required to develop a flare management plan and submit it to the Administrator, then the owner or operator must also submit all versions of the plan in portable document format (PDF) to the EPA following the procedure specified in §63.9(k), except any medium submitted through U.S. mail must be sent to the attention of the Ethylene Production Sector Lead.

(iv) Section 63.670(o)(3)(ii) of subpart CC and all references to §63.670(o)(3)(ii) of subpart CC do not apply. Instead, the owner or operator must comply with the maximum flare tip velocity operating limit at all times.

(v) Substitute ''ethylene production unit'' for each occurrence of ''petroleum refinery.''

(vi) Each occurrence of ''refinery'' does not apply.

(vii) Except as specified in paragraph (e)(4)(vii)(G) of this section, if a pressure-assisted multi-point flare is used as a control device for an emission point subject to the requirements in Table 7 to this section, then the owner or operator must comply with the requirements specified in paragraphs (e)(4)(vii)(A) through (F) of this section.

(A) The owner or operator is not required to comply with the flare tip velocity requirements in §63.670(d) and (k) of subpart CC;

(B) The owner or operator must comply with the NHVcz requirements in §63.670(e)(2) of subpart CC;

(C) The owner or operator must determine the 15-minute block average NHVvg using only the direct calculation method specified in §63.670(l)(5)(ii) of subpart CC;

(D) Instead of complying with §63.670(b) and (g) of subpart CC, if a pressure-assisted multi-point flare uses cross-lighting on a stage of burners rather than having an individual pilot flame on each burner, the owner or operator must operate each stage of the pressure-assisted multi-point flare with a flame present at all times when regulated material is routed to that stage of burners. Each stage of burners that cross-lights in the pressure-assisted multi-point flare must have at least two pilots with at least one continuously lit and capable of igniting all regulated material that is routed to that stage of burners. Each 15-minute block during which there is at least one minute where no pilot flame is present on a stage of burners when regulated material is routed to that stage is a deviation of the standard. Deviations in different 15-minute blocks from the same event are considered separate deviations. The pilot flame(s) on each stage of burners that use cross-lighting must be continuously monitored by a thermocouple or any other equivalent device used to detect the presence of a flame;

(E) Unless the owner or operator of a pressure-assisted multi-point flare chooses to conduct a cross-light performance demonstration as specified in this paragraph, the owner or operator must ensure that if a stage of burners on the flare uses cross-lighting, that the distance between any two burners in series on that stage is no more than 6 feet when measured from the center of one burner to the next burner. A distance greater than 6 feet between any two burners in series may be used provided the owner or operator conducts a performance demonstration that confirms the pressure-assisted multi-point flare will cross-light a minimum of three burners and the spacing between the burners and location of the pilot flame must be representative of the projected installation. The compliance demonstration must be approved by the permitting authority and a copy of this approval must be maintained onsite. The compliance demonstration report must include: A protocol describing the test methodology used, associated test method QA/QC parameters, the waste gas composition and NHVcz of the gas tested, the velocity of the waste gas tested, the pressure-assisted multi-point flare burner tip pressure, the time, length, and duration of the test, records of whether a successful cross-light was observed over all of the burners and the length of time it took for the burners to cross-light, records

of maintaining a stable flame after a successful cross-light and the duration for which this was observed, records of any smoking events during the cross-light, waste gas temperature, meteorological conditions (*e.g.*, ambient temperature, barometric pressure, wind speed and direction, and relative humidity), and whether there were any observed flare flameouts; and

(F) The owner or operator of a pressure-assisted multi-point flare must install and operate pressure monitor(s) on the main flare header, as well as a valve position indicator monitoring system for each staging valve to ensure that the flare operates within the proper range of conditions as specified by the manufacturer. The pressure monitor must meet the requirements in Table 13 to subpart CC of this part.

(G) If a pressure-assisted multi-point flare is operating under the requirements of an approved alternative means of emission limitations, the owner or operator shall either continue to comply with the terms of the alternative means of emission limitations or comply with the provisions in paragraphs (e)(4)(vii)(A) through (F) of this section.

(viii) If an owner or operator chooses to determine compositional analysis for net heating value with a continuous process mass spectrometer, the owner or operator must comply with the requirements specified in paragraphs (e)(4)(viii)(A) through (G) of this section.

(A) The owner or operator must meet the requirements in § 63.671(e)(2). The owner or operator may augment the minimum list of calibration gas components found in § 63.671(e)(2) with compounds found during a pre-survey or known to be in the gas through process knowledge.

(B) Calibration gas cylinders must be certified to an accuracy of 2 percent and traceable to National Institute of Standards and Technology (NIST) standards.

(C) For unknown gas components that have similar analytical mass fragments to calibration compounds, the owner or operator may report the unknowns as an increase in the overlapped calibration gas compound. For unknown compounds that produce mass fragments that do not overlap calibration compounds, the owner or operator may use the response factor for the nearest molecular weight hydrocarbon in the calibration mix to quantify the unknown component's NHV_{vg}.

(D) The owner or operator may use the response factor for n-pentane to quantify any unknown components detected with a higher molecular weight than n-pentane.

(E) The owner or operator must perform an initial calibration to identify mass fragment overlap and response factors for the target compounds.

(F) The owner or operator must meet applicable requirements in Performance Specification 9 of 40 CFR part 60, appendix B, for continuous monitoring system acceptance including, but not limited to, performing an initial multi-point calibration check at three concentrations following the procedure in Section 10.1 and performing the periodic calibration requirements listed for gas chromatographs in Table 13 to subpart CC of this part, for the process mass spectrometer. The owner or operator may use the alternative sampling line temperature allowed under Net Heating Value by Gas Chromatograph in Table 13 to subpart CC of this part.

(G) The average instrument calibration error (CE) for each calibration compound at any calibration concentration must not differ by more than 10 percent from the certified cylinder gas value. The CE for each component in the calibration blend must be calculated using the following equation:

$$CE = \frac{C_m - C_a}{C_a} \, x \, 100$$

Where:

C_m = Average instrument response (ppm)
C_a = Certified cylinder gas value (ppm)

(ix) An owner or operator using a gas chromatograph or mass spectrometer for compositional analysis for net heating value may choose to use the CE of $NHV_{measured}$ versus the cylinder tag value NHV as the measure of agreement for daily calibration and quarterly audits in lieu of determining the compound-specific CE. The CE for NHV at any calibration level must not differ by more than 10 percent from the certified cylinder gas value. The CE for must be calculated using the following equation:

$$CE = \frac{NHV_{measured} - NHV_a}{NHV_a} x\ 100$$

Where:

$NHV_{measured}$ = Average instrument response (Btu/scf)
NHV_a = Certified cylinder gas value (Btu/scf)

(x) Instead of complying with §63.670(p) of subpart CC, the owner or operator must keep the flare monitoring records specified in §63.1109(e).

(xi) Instead of complying with §63.670(q) of subpart CC, the owner or operator must comply with the reporting requirements specified in §63.1110(d) and (e)(4).

(xii) When determining compliance with the pilot flame requirements specified in §63.670(b) and (g), substitute ''pilot flame or flare flame'' for each occurrence of ''pilot flame.''

(xiii) When determining compliance with the flare tip velocity and combustion zone operating limits specified in §63.670(d) and (e), the requirement effectively applies starting with the 15-minute block that includes a full 15 minutes of the flaring event. The owner or operator is required to demonstrate compliance with the velocity and NHVcz requirements starting with the block that contains the fifteenth minute of a flaring event. The owner or operator is not required to demonstrate compliance for the previous 15-minute block in which the event started and contained only a fraction of flow.

(xiv) In lieu of meeting the requirements in §§63.670 and 63.671 of subpart CC, an owner or operator may submit a request to the Administrator for approval of an alternative test method in accordance with §63.7(f). The alternative test method must be able to demonstrate on an ongoing basis at least once every 15-minutes that the flare meets 96.5% combustion efficiency and provide a description of the alternative recordkeeping and reporting that would be associated with the alternative test method. The alternative test method request may also include a request to use the alternative test method in lieu of the pilot or flare flame monitoring requirements of 63.670(g).

(5) *Maintenance vents.* Unless an extension is requested in accordance with the provisions in §63.6(i) of subpart A, beginning no later than the compliance dates specified in §63.1102(c), an owner or operator may designate an ethylene process vent as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed, or placed into service. The owner or operator must comply with the applicable requirements in paragraphs (e)(5)(i) through (iii) of this section for each maintenance vent.

(i) Prior to venting to the atmosphere, remove process liquids from the equipment as much as practical and depressurize the equipment to either: A flare meeting the requirements specified in paragraph (e)(4) of this section, or a non-flare control device meeting the requirements specified in §63.982(c)(2) of subpart SS, until one of the following conditions, as applicable, is met.

(A) The concentration of the vapor in the equipment served by the maintenance vent is less than 10 percent of its lower explosive limit (LEL).

(B) If there is no ability to measure the concentration of the vapor in the equipment based on the design of the equipment, the pressure in the equipment served by the maintenance vent is reduced to 5 pounds per square inch gauge (psig) or less. Upon opening the maintenance vent, active purging of the equipment cannot be used until the concentration of the vapors in the maintenance vent (or inside the equipment if the maintenance is a hatch or similar type of opening) is less than 10 percent of its LEL.

(C) The equipment served by the maintenance vent contains less than 50 pounds of total volatile organic compounds (VOC).

(D) If, after applying best practices to isolate and purge equipment served by a maintenance vent, none of the applicable criterion in paragraphs (e)(5)(i)(A) through (C) of this section can be met prior to installing or removing a blind flange or similar equipment blind, then the pressure in the equipment served by the maintenance vent must be reduced to 2 psig or less before installing or removing the equipment blind. During installation or removal of the equipment blind, active purging of the equipment may be used provided the equipment pressure at the location where purge gas is introduced remains at 2 psig or less.

(ii) Except for maintenance vents complying with the alternative in paragraph (e)(5)(i)(C) of this section, the owner or operator must determine the concentration of the vapor or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications.

(iii) For maintenance vents complying with the alternative in paragraph (e)(5)(i)(C) of this section, the owner or operator must determine mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

(6) *Bypass lines.* Beginning on the compliance dates specified in §63.1102(c), the use of a bypass line at any time on a closed vent system to divert emissions subject to the requirements in Table 7 to §63.1103(e) to the atmosphere or to a control device not meeting the requirements specified in Table 7 of this subpart is an emissions standards violation. If the owner or operator is subject to the bypass monitoring requirements of §63.983(a)(3) of subpart SS, then the owner or operator must continue to comply with the requirements in §63.983(a)(3) of subpart SS and the recordkeeping and reporting requirements in §§63.998(d)(1)(ii) and 63.999(c)(2) of subpart SS, in addition to paragraph (e)(9) of this section, the recordkeeping requirements specified in §63.1109(g), and the reporting requirements specified in §63.1110(e)(6). For purposes of compliance with this paragraph, the phrase ''Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines'' in §63.983(a)(3) does not apply; instead, the exemptions specified in paragraph (e)(6)(i) and (ii) of this section apply.

(i) Except for pressure relief devices subject to 40 CFR 63.1107(h)(4), equipment such as low leg drains and equipment subject to the requirements specified in paragraph (f) of Table 7 to §63.1103(e) are not subject to this paragraph (e)(6) of this section.

(ii) Open-ended valves or lines that use a cap, blind flange, plug, or second valve and follow the requirements specified in §60.482–6(a)(2), (b), and (c) or follow requirements codified in another regulation that are the same as §60.482–6(a)(2), (b), and (c) are not subject to this paragraph (e)(6) of this section.

(7) *Decoking operation standards for ethylene cracking furnaces.* Beginning no later than the compliance dates specified in §63.1102(c), the owner or operator must comply with paragraph (e)(7)(i) of this section and also use at least two of the control measures specified in paragraphs (e)(7)(ii) through (v)

of this section to minimize coke combustion emissions from the decoking of the radiant tube(s) in each ethylene cracking furnace.

(i) During normal operations, conduct daily inspections of the firebox burners and repair all burners that are impinging on the radiant tube(s) as soon as practical, but not later than 1 calendar day after the flame impingement is found. The owner or operator may delay burner repair beyond 1 calendar day provided the repair cannot be completed during normal operations, the burner cannot be shutdown without significantly impacting the furnace heat distribution and firing rate, and action is taken to reduce flame impingement as much as possible during continued operation. If a delay of repair is required to fully resolve burner flame impingement, repair must be completed following the next planned decoking operation (and before returning the ethylene cracking furnace back to normal operations) or during the next ethylene cracking furnace complete shutdown (when the ethylene cracking furnace firebox is taken completely offline), whichever is earlier. An inspection may include, but is not limited to: visual inspection of the radiant tube(s) for localized bright spots (this may be confirmed with a temperature gun), use of luminescent powders injected into the burner to illuminate the flame pattern, or identifying continued localized coke buildup that causes short runtimes between decoking cycles. A repair may include, but is not limited to: Taking the burner out of service, replacing the burner, adjusting the alignment of the burner, adjusting burner configuration, making burner air corrections, repairing a malfunction of the fuel liquid removal equipment, or adding insulation around the radiant tube(s).

(ii) During decoking operations, beginning before the expected end of the air-in decoke time, continuously monitor (or use a gas detection tube or equivalent sample technique every three hours to monitor) the CO_2 concentration in the combined decoke effluent downstream of the last component being decoked for an indication that the coke combustion in the ethylene cracking furnace radiant tube(s) is complete. The owner or operator must immediately initiate procedures to stop the coke combustion once the CO_2 concentration at the outlet consistently reaches a level that indicates combustion of coke is complete and site decoke completion assurance procedures have been concluded.

(iii) During decoking operations, continuously monitor the temperature at the radiant tube(s) outlet when air is being introduced to ensure the coke combustion occurring inside the radiant tube(s) is not so aggressive (*i.e.*, too hot) that it damages either the radiant tube(s) or ethylene cracking furnace isolation valve(s). The owner or operator must immediately initiate procedures to reduce the temperature at the radiant tube(s) outlet once the temperature reaches a level that indicates combustion of coke inside the radiant tube(s) is too aggressive.

(iv) After decoking, but before returning the ethylene cracking furnace back to normal operations, verify that decoke air is no longer being added.

(v) After decoking, but before returning the ethylene cracking furnace back to normal operations and/or during normal operations, inject materials into the steam or feed to reduce coke formation inside the radiant tube(s) during normal operation.

(8) *Ethylene cracking furnace isolation valve inspections.* Beginning no later than the compliance dates specified in § 63.1102(c), the owner or operator must conduct ethylene cracking furnace isolation valve inspections as specified in paragraphs (e)(8)(i) and (ii) of this section.

(i) Prior to decoking operation, inspect the applicable ethylene cracking furnace isolation valve(s) to confirm that the radiant tube(s) being decoked is completely isolated from the ethylene production process so that no emissions generated from decoking operations are sent to the ethylene production process. If poor isolation is identified, then the owner or operator must rectify the isolation issue prior to continuing decoking operations to prevent leaks into the ethylene production process, unless the owner or operator determines that damage to the radiant tube(s) or ethylene cracking furnace could occur if the repair was attempted

prior to completing a decoking operation and/or prior to the ethylene cracking furnace being shut down.

(ii) Prior to returning the ethylene cracking furnace to normal operations after a decoking operation, inspect the applicable ethylene cracking furnace isolation valve(s) to confirm that the radiant tube(s) that was decoked is completely isolated from the decoking pot or furnace firebox such that no emissions are sent from the radiant tube(s) to the decoking pot or furnace firebox once the ethylene cracking furnace returns to normal operation. If poor isolation is identified, then the owner or operator must rectify the isolation issue prior to continuing normal operations to prevent product from escaping to the atmosphere through the decoking pot or furnace firebox.

(9) *Startup, shutdown, and malfunction referenced provisions.* Beginning no later than the compliance dates specified in § 63.1102(c), the referenced provisions specified in paragraphs (e)(9)(i) through (xx) of this section do not apply when demonstrating compliance with paragraph (e)(3) of this section.

(i) The second sentence of § 63.181(d)(5)(i) of subpart H.

(ii) The second sentence of § 63.983(a)(5) of subpart SS.

(iii) The phrase ''except during periods of start-up, shutdown and malfunction as specified in the referencing subpart'' in § 63.984(a) of subpart SS.

(iv) The phrase ''except during periods of start-up, shutdown and malfunction as specified in the referencing subpart'' in § 63.985(a) of subpart SS.

(v) The phrase ''other than start-ups, shutdowns, or malfunctions'' in § 63.994(c)(1)(ii)(D) of subpart SS.

(vi) Section 63.996(c)(2)(ii) of subpart SS.

(vii) The last sentence of § 63.997(e)(1)(i) of subpart SS.

(viii) Section 63.998(b)(2)(iii) of subpart SS.

(ix) The phrase ''other than periods of startups, shutdowns, and malfunctions'' from § 63.998(b)(5)(i)(A) of subpart SS.

(x) The phrase ''other than a start-up, shutdown, or malfunction'' from § 63.998(b)(5)(i)(B)(3) of subpart SS.

(xi) The phrase ''other than periods of startups, shutdowns, and malfunctions'' from § 63.998(b)(5)(i)(C) of subpart SS.

(xii) The phrase ''other than a start-up, shutdown, or malfunction'' from § 63.998(b)(5)(ii)(C) of subpart SS.

(xiii) The phrase ''except as provided in paragraphs (b)(6)(i)(A) and (B) of this section'' from § 63.998(b)(6)(i) of subpart SS.

(xiv) The second sentence of § 63.998(b)(6)(ii) of subpart SS.

(xv) Section 63.998(c)(1)(ii)(D) through (G) of subpart SS.

(xvi) Section 63.998(d)(3) of subpart SS.

(xvii) The phrase ''may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or'' from § 63.1024(f)(4)(i) of subpart UU.

(xviii) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1026(e)(1)(ii)(A) of subpart UU.

(xix) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1028(e)(1)(i)(A) of subpart UU.

(xx) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1031(b)(1) of subpart UU.

(10) *Storage vessel degassing.* Beginning no later than the compliance dates specified in § 63.1102(c), for each storage vessel subject to paragraph (b) or (c) of table 7 to § 63.1103(e), the owner or operator must comply with paragraphs (e)(10)(i) through (iv) of this section during storage vessel shutdown operations (*i.e.*, emptying and degassing of a storage vessel) until the vapor space concentration in the storage vessel is less than 10 percent of the LEL. The owner or operator must determine the concentration using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications.

(i) Remove liquids from the storage vessel as much as practicable;

(ii) Comply with one of the following:

(A) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to a flare and meet the requirements of § 63.983 and paragraphs (e)(4) and (9) of this section.

(B) Reduce emissions of total organic HAP by 98 weight-percent by venting

emissions through a closed vent system to any combination of non-flare control devices and meet the requirements specified in § 63.982(c)(1) and paragraph (e)(9) of this section.

(C) Reduce emissions of total organic HAP by 98 weight-percent by routing emissions to a fuel gas system or process and meet the requirements specified in § 63.982(d) and paragraph (e)(9) of this section.

(iii) Maintain records necessary to demonstrate compliance with the requirements in § 63.1108(a)(4)(ii) including, if appropriate, records of existing standard site procedures used to empty and degas (deinventory) equipment for safety purposes.

(iv) For floating roof storage vessels, the storage vessel may be opened to set up equipment (e.g., making connections to a temporary control device) for the shutdown operations but must not be actively degassed during this time period.

TABLE 7 TO § 63.1103(e)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ETHYLENE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
(a) A storage vessel (as defined in § 63.1101) that stores liquid containing organic HAP.	(1) The maximum true vapor pressure of total organic HAP is ≥3.4 kilopascals but <76.6 kilopascals; and the capacity of the vessel is ≥4 cubic meters but <95 cubic meters.	(i) Fill the vessel through a submerged pipe; or (ii) Comply with the requirements for storage vessels with capacities ≥95 cubic meters.
(b) A storage vessel (as defined in § 63.1101) that stores liquid containing organic HAP.	(1) The maximum true vapor pressure of total organic HAP is ≥3.4 kilopascals but <76.6 kilopascals; and the capacity of the vessel is ≥95 cubic meters.	(i) Except as specified in paragraph (b)(1)(iii) of this table, comply with the requirements of subpart WW of this part; or (ii) Except as specified in paragraph (b)(1)(iii) of this table, reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices and meet the requirements of § 63.982(a)(1). (iii) Beginning no later than the compliance dates specified in § 63.1102(c), comply with paragraph (b)(1)(iii)(A), (B), (C), or (D) of this table, and (e)(10) of this section. (A) Comply with the requirements of subpart WW of this part; or (B) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to a flare and meet the requirements of § 63.983 and paragraphs (e)(4) and (9) of this section; or (C) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of non-flare control devices and meet the requirements specified in § 63.982(c)(1) and (e)(9) of this section; or (D) Reduce emissions of total organic HAP by 98 weight-percent by routing emissions to a fuel gas system[a] or process and meet the requirements specified in § 63.982(d) and (e)(9) of this section.

TABLE 7 TO § 63.1103(e)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ETHYLENE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
(c) A storage vessel (as defined in § 63.1101) that stores liquid containing organic HAP.	(1) The maximum true vapor pressure of total organic HAP is ≥76.6 kilopascals.	(i) Except as specified in paragraph (c)(1)(ii) of this table, reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices and meet the requirements of § 63.982(a)(1). (ii) Beginning no later than the compliance dates specified in § 63.1102(c), comply with paragraph (c)(1)(ii)(A), (B), or (C) of this table, and (e)(10) of this section. (A) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to a flare and meet the requirements of § 63.983 and paragraphs (e)(4) and (9) of this section; or (B) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of non-flare control devices and meet the requirements specified in § 63.982(c)(1) and (e)(9) of this section; or (C) Reduce emissions of total organic HAP by 98 weight-percent by routing emissions to a fuel gas system[a] or process and meet the requirements specified in § 63.982(d) and (e)(9) of this section.
(d) An ethylene process vent (as defined in paragraph (e)(2) of this section).	(1) The process vent is at an existing source and the vent stream has a flow rate ≥0.011 scmm and a total organic HAP concentration ≥50 parts per million by volume on a dry basis; or the process vent is at a new source and the vent stream has a flow rate ≥0.008 scmm and a total organic HAP concentration ≥30 parts per million by volume on a dry basis.	(i) Except as specified in paragraph (d)(1)(ii) of this table, reduce emissions of organic HAP by 98 weight-percent; or reduce organic HAP or TOC to a concentration of 20 parts per million by volume on a dry basis corrected to 3% oxygen; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices and meet the requirements specified in § 63.982(b) and (c)(2). (ii) Beginning no later than the compliance dates specified in § 63.1102(c), comply with the maintenance vent requirements specified in paragraph (e)(5) of this section and either paragraph (d)(1)(ii)(A) or (B) of this table. (A) Reduce emissions of organic HAP by 98 weight-percent; or reduce organic HAP or TOC to a concentration of 20 parts per million by volume on a dry basis corrected to 3-percent oxygen; whichever is less stringent, by venting emissions through a closed vent system to a flare and meet the requirements of § 63.983 and paragraphs (e)(4) and (9) of this section; or (B) Reduce emissions of organic HAP by 98 weight-percent; or reduce organic HAP or TOC to a concentration of 20 parts per million by volume on a dry basis corrected to 3-percent oxygen; whichever is less stringent, by venting emissions through a closed vent system to any combination of non-flare control devices and meet the requirements specified in § 63.982(c)(2) and (e)(9) of this section.

TABLE 7 TO § 63.1103(e)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ETHYLENE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
(e) A transfer rack (as defined in paragraph (e)(2) of this section).	(1) Materials loaded have a true vapor pressure of total organic HAP ≥3.4 kilopascals and ≥76 cubic meters per day (averaged over any consecutive 30-day period) of HAP-containing material is loaded.	(i) Reduce emissions of organic HAP by 98 weight-percent; or reduce organic HAP or TOC to a concentration of 20 parts per million by volume on a dry basis corrected to 3-percent oxygen; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices as specified in § 63.1105 and meet the requirements specified in paragraph (e)(9) of this section.; or (ii) Install process piping designed to collect the HAP-containing vapors displaced from tank trucks or railcars during loading and to route it to a process, a fuel gas system, or a vapor balance system, as specified in § 63.1105 and meet the requirements specified in paragraph (e)(9) of this section.[a]
(f) Equipment (as defined in § 63.1101) that contains or contacts organic HAP.	(1) The equipment contains or contacts ≥5 weight-percent organic HAP; and the equipment is not in vacuum service.	(i) Except as specified in paragraph (f)(1)(ii) of this table, comply with the requirements of subpart UU of this part. (ii) Beginning no later than the compliance dates specified in § 63.1102(c), comply with the requirements of paragraph (e)(9) of this section and subpart UU of this part, except instead of complying with the pressure relief device requirements of § 63.1030 of subpart UU, meet the requirements of § 63.1107(h), and in lieu of the flare requirement of § 63.1034(b)(2)(iii), comply with the requirements specified in paragraph (e)(4) of this section.[a]
(g) Processes that generate waste (as defined in paragraph (e)(2) of this section.	(1) The waste stream contains any of the following HAP: Benzene, cumene, ethyl benzene, hexane, naphthalene, styrene, toluene, o-xylene, m-xylene, p-xylene, or 1,3-butadiene.	Comply with the waste requirements of subpart XX of this part. For ethylene production unit waste stream requirements, terms have the meanings specified in subpart XX.
(h) A heat exchange system (as defined in § 63.1082(b)).	.....	Comply with the heat exchange system requirements of subpart XX of this part.
(i) A closed vent system that contains one or more bypass lines.	(1) The bypass line could divert a vent stream directly to the atmosphere or to a control device not meeting the requirements in this table.	Beginning no later than the compliance dates specified in § 63.1102(c), comply with the requirements specified in paragraphs (e)(6) and (9) of this section.
(j) A decoking operation associated with an ethylene cracking furnace.	.....	Beginning no later than the compliance dates specified in § 63.1102(c), comply with the requirements specified in paragraphs (e)(7) and (8) of this section.

[a] Beginning no later than the compliance dates specified in § 63.1102(c), any flare using fuel gas from a fuel gas system, of which 50 percent or more of the fuel gas is derived from an ethylene production unit as determined on an annual average basis, must be in compliance with paragraph (e)(4) of this section.

(f) *Carbon black production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the carbon black production source category (as defined in paragraph (f)(2) of this section), the affected source shall comprise each carbon black production process unit located at a major source, as defined in section 112(a) of the Act. The affected source for the carbon black production source category includes all waste management units, maintenance wastewater, and equipment components that contain or contact HAP that are associated with the carbon black production process unit.

(ii) *Compliance schedule.* The compliance schedule for the carbon black production and acetylene decomposition carbon black production affected sources, as defined in paragraph (f)(1)(i) of this section, is specified in § 63.1102.

(2) *Definitions. Carbon black production* means the production of carbon black

by either the furnace, thermal, acetylene decomposition, or lampblack processes.

Carbon black production unit means the equipment assembled and connected by hard-piping or duct work to process raw materials to manufacture, store, and transport a carbon black product. For the purposes of this subpart, a carbon black production process unit includes reactors and associated operations; associated recovery devices; and any feed, intermediate and product storage vessels, product transfer racks, and connected ducts and piping. A carbon black production process unit includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or systems.

Dryer means a rotary-kiln dryer that is heated externally and is used to dry wet pellets in the wet pelletization process.

Main unit filter means the filter that separates the carbon black from the tailgas.

Process filter means the filter that separates the carbon black from the conveying air.

Purge filter means the filter that separates the carbon black from the dryer exhaust.

(3) *Requirements.* (i) Table 8 to this section specifies the carbon black production standards applicability for existing and new sources. Applicability assessment procedures and methods are specified in § 63.1104. An owner or operator of an affected source is not required to perform applicability tests or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Before May 18, 2022, minimization of emissions from startup, shutdown, and malfunctions must be addressed in the startup, shutdown, and malfunction plan required by § 63.1111; the plan must also establish reporting and recordkeeping of such events. A startup, shutdown, and malfunction plan is not required on and after May 18, 2022 and the requirements specified in § 63.1111 no longer apply; however, for historical compliance purposes, a copy of the plan must be retained and available on-site for 5 years after May 18, 2022. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

(ii) Pressure relief devices used to protect against overpressure in the case of catastrophic failure of your process filter system are exempt from the closed vent system inspection requirements of § 63.983(b) and (c). Exempt pressure relief devices must be designated and identified in your Notification of Compliance Status report.

TABLE 8 TO § 63.1103(f)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A CARBON BLACK PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
(a) A carbon black production main unit filter process vent.	(1) The HAP concentration of the emission stream is equal to or greater than 260 parts per million by volume [a].	(i) Reduce emissions of HAP by using a flare meeting the requirements of subpart SS of this part; or (ii) Reduce emissions of total HAP by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of § 63.982(a)(2).

TABLE 8 TO § 63.1103(f)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A CARBON BLACK PRODUCTION EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
(b) A carbon black production process vent not subject to line entry (a) of this table.	(1) The HAP concentration of the emission stream is equal to or greater than 260 parts per million by volume [a] as determined by the process vent applicability determination requirements specified in § 63.1103(f)(3)(iv).	Beginning no later than the compliance dates specified in § 63.1102(e): (i) Reduce emissions of HAP by using a flare meeting the requirements of subpart SS of this part; or (ii) Reduce emissions of total HAP by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of § 63.982(a)(2).
(c) A carbon black production process vent subject to (a) or (b) above.	(1) The process vent complies by routing emissions to a boiler/process heater for use as fuel gas.	(i) Beginning no later than the compliance dates specified in § 63.1102(e), conduct annual tune up requirements as specified in § 63.1103(f)(3)(iii) of this subpart.

[a] The weight-percent organic HAP is determined according to the procedures specified in § 63.1104(e).

(iii) The boiler and process heater tune up requirements of paragraphs (f)(3)(iii)(A) through (F) of this section apply beginning no later than the compliance dates specified in § 63.1102(e) for carbon black production affected sources and as specified in Table 8 to § 63.1103(f), line entry (c).

(A) Inspect the combustion device for damage, wear, and buildup of material that could impact effectiveness, and clean or replace any components of the burner as necessary. Units that produce electricity for sale may delay the combustion device inspection until the first outage after the annual inspection is required, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(B) When possible based upon the configuration of the burner, inspect the flame pattern and adjust the burner if needed to optimize the flame pattern. If manufacturer's specifications for an optimized flame pattern are available, the adjustment should be consistent with the manufacturer's specifications;

(C) Inspect the system controlling the air-to-fuel ratio, and ensure that it is functioning properly. For any calibrated components ensure that it is correctly calibrated The annual inspection may be delayed until the next scheduled unit shutdown. Units that produce electricity for sale may delay the inspection until the first outage after the annual inspection is required, not to exceed 36 months from the previous inspection;

(D) Optimize total emissions of CO. If manufacturer's specifications for optimization are available, this optimization should be consistent with the manufacturer's specifications and with any NO_X requirement to which the unit is subject. If no manufacturer's specifications are available, the inspection and cleaning procedures of paragraph (f)(3)(iii)(A) fulfill the obligations of this paragraph;

(E) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be taken using a portable CO analyzer and may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made. If adjustments are not or cannot be made, make the measurements before and after the inspection and cleaning procedures specified in paragraph (f)(3)(iii)(A); and

(F) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (f)(3)(iii)(F)(*1*) through (*3*) of this section,

(*1*) The concentrations of CO in the effluent stream in parts per million by

volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(*2*) A description of any corrective actions taken as a part of the tune-up; and

(*3*) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(iv) When determining the applicability of the carbon black production process vent requirements specified in line entry (b) to Table 8 to § 63.1103(f), an owner or operator is required to determine the HAP concentration of the process vent streams, at a minimum, as specified in paragraphs (f)(3)(iv)(A) through (D) of this section.

(A) As an alternative to testing all carbon black production process carbon black or product vent streams after the main unit filter to determine applicability, an owner or operator has the option of testing the first carbon black production process or product vent stream after the main unit filter. If the concentration of the emission stream is less than 260 parts per million by volume as determined by the process vent applicability determination requirements specified in § 63.1103(f)(3)(iv), then all process vents after the main unit filter and before the dryer are deemed to be in compliance and are not subject to the emission limits in Table 8 below.

(B) As an alternative to testing all carbon black production process carbon black or product vent streams after the dryer to determine applicability, an owner or operator has the option of testing the first carbon black production process carbon black or product vent stream after the dryer. If the concentration of the emission stream is less than 260 parts per million by volume as determined by the process vent applicability determination requirements specified in § 63.1103(f)(3)(iv), then all process vents after the dryer are deemed to be in compliance and are not subject to the emission limits in Table 8 below.

(C) Report the results of the applicability assessment according to paragraph § 63.1110(a)(10)(i).

(D) A test meeting the requirements of § 63.1104(e) conducted after November 18, 2016 and where no process changes have occurred since the test that may affect emissions, may be submitted according to § 63.1110(a)(10)(i)(A) through (C) in lieu of performing a new applicability determination.

(v) When determining the applicability of the carbon black production main unit filter process vent requirements specified in line entry (a) to Table 8 to § 63.1103(f), an owner or operator is required to determine the HAP concentration of the main unit filter process vent streams. Beginning November 19, 2021, report the results of any applicability assessment conducted after November 19, 2021, the applicability assessment according to paragraph § 63.1110(a)(10)(i).

(4) Beginning no later than the compliance dates specified in § 63.1102(e), the referenced provisions specified in paragraphs (f)(4)(i) through (xiii) of this section do not apply when demonstrating compliance with paragraph (f)(3) of this section.

(i) The phrase ''except during periods of start-up, shutdown and malfunction as specified in the referencing subpart'' in § 63.984(a) of subpart SS(equipment and operating requirements for fuel gas systems and processes requirements).

(ii) The phrase ''except during periods of start-up, shutdown and malfunction as specified in the referencing subpart'' in § 63.985(a) of subpart SS (nonflare control device equipment and operating requirements).

(iii) The phrase ''other than start-ups, shutdowns, or malfunctions'' in § 63.994(c)(1)(ii)(D) of subpart SS (halogen scrubber and other halogen reduction device monitoring requirements).

(iv) Section 63.996(c)(2)(ii) of subpart SS (operation and maintenance of continuous parameter monitoring systems) ''(ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in § 63.998(c)(1)(ii)(E).''

(v) The last sentence of § 63.997(e)(1)(i) (performance test procedures) of subpart SS (general procedures for continuous unit operations): ''Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.''

(vi) Section 63.998(b)(2)(iii) (excluded data) of subpart SS: ''(iii) Startups, shutdowns, and malfunctions, if the owner or operator operates the source during such periods in accordance with § 63.1111(a) and maintains the records specified in paragraph (d)(3) of this section.''

(vii) The phrase ''other than periods of startups, shutdowns, and malfunctions'' from § 63.998(b)(5)(i)(A) (alternative recordkeeping) of subpart SS.

(viii) The phrase ''other than a start-up, shutdown, or malfunction'' from § 63.998(b)(5)(i)(B)(3) (alternate recordkeeping) of subpart SS.

(ix) The phrase ''other than periods of startups, shutdowns, and malfunctions'' from § 63.998(b)(5)(i)(C) (alternate recordkeeping) of subpart SS.

(x) The phrase ''other than a start-up, shutdown, or malfunction'' from § 63.998(b)(5)(ii)(C) (alternate recordkeeping) of subpart SS.

(xi) The phrase ''except as provided in paragraphs (b)(6)(i)(A) and (B) of this section'' from § 63.998(b)(6)(i) (alternative recordkeeping) of subpart SS.

(xii) The second sentence of § 63.998(b)(6)(ii) (alternative recordkeeping) of subpart SS. ''If a source has developed a startup, shutdown and malfunction plan, and a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with § 63.1111(a)) or during periods of nonoperation of the process unit or portion thereof (resulting in cessation of the emissions to which monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count as the excused excursion for determining compliance.''

(xiii) Section 63.998(c)(1)(ii)(D) through (G) (nonflare control and recovery device regulated source monitoring records) of subpart SS.

(xiv) Section 63.998(d)(3) (regulated source and control equipment start-up, shutdown, and malfunction records) of subpart SS.

(5) Beginning no later than the compliance dates specified in § 63.1102(e), the provisions specified in § 63.983(a)(1) of subpart SS that each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point shall apply at all times, with the following exception: The closed vent system to the control device may be bypassed during startup or shutdown of a reactor when the excess oxygen concentration in the closed vent system is greater than or equal to 3 percent. Startup and shutdown of a reactor must be completed as expeditiously as possible, and in fewer than 15 minutes whenever possible. In no case shall the time period allowed be permitted to exceed 15 minutes. The bypass of the control device must use one of the methods specified in paragraphs (f)(5)(i) through (ii):

(i) *Calculated Purge Duration Method:* Each facility must calculate the purge duration of their closed vent system by evaluating the volume of the closed vent system and the flowrate of the contents of the closed vent system from the reactor to the common tail gas header. Additionally, each facility must calculate the amount of time it takes to open and/or close the common tail gas header and open and/or close the main unit filter vent to maintain constant pressure. The time required to completely purge the closed vent system is added to the time required to open and close the associated vents along with a safety factor that accounts for the physical and technological constraints of the facility, to determine the total calculated purge duration in minutes.

(ii) *Oxygen Sensors:* Facilities may use oxygen sensors located within the closed vent system to determine when the oxygen level falls below 3 percent.

(g) *Cyanide chemicals manufacturing applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the cyanide chemicals manufacturing source category, the affected source shall include each cyanide chemicals manufacturing process

unit located at a major source, as defined in section 112(a) of the Act. The affected source shall also include all waste management units, maintenance wastewater, and equipment (as defined in § 63.1101) that contain or contact cyanide chemicals that are associated with the cyanide chemicals manufacturing process unit.

(ii) *Compliance schedule.* The compliance schedule for the affected source, as defined in paragraph (g)(1)(i) of this section, is specified in § 63.1102.

(2) *Definitions. Andrussow process unit* means a process unit that produces hydrogen cyanide by reacting methane and ammonia in the presence of oxygen over a platinum/rhodium catalyst. An Andrussow process unit begins at the point at which the raw materials are stored and ends at the point at which refined hydrogen cyanide is reacted as a raw material in a downstream process, burned on-site as fuel in a boiler or industrial furnace, or is shipped offsite. If raw hydrogen cyanide from the reactor is reacted with sodium hydroxide to form sodium cyanide prior to the refining process, the unit operation where sodium cyanide is formed is considered to be part of the Andrussow process unit.

Blausaure Methane Anlage (BMA) process unit means a process unit that produces hydrogen cyanide by reacting methane and ammonia over a platinum catalyst. A BMA process unit begins at the point at which raw materials are stored and ends at the point at which refined hydrogen cyanide is reacted as a raw material in a downstream process, burned on-site as a fuel in a boiler or industrial furnace, or is shipped offsite. If raw hydrogen cyanide from the reactor is reacted with sodium hydroxide to form sodium cyanide prior to the refining process, the unit operation where sodium cyanide is formed is considered to be part of the BMA process unit.

Byproduct means a chemical that is produced coincidentally during the production of another chemical.

Cyanide chemicals manufacturing process unit or *CCMPU* means the equipment assembled and connected by hard-piping or duct work to process raw materials to manufacture, store, and transport a cyanide chemicals product. A cyanide chemicals manufacturing process unit shall be limited to any one of the following: an Andrussow process unit, a BMA process unit, a sodium cyanide process unit, or a Sohio hydrogen cyanide process unit. For the purpose of this subpart, a cyanide chemicals manufacturing process unit includes reactors and associated unit operations; associated recovery devices; and any feed, intermediate and product storage vessels, product transfer racks, and connected ducts and piping. A cyanide chemicals manufacturing process unit includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or systems.

Cyanide chemicals product means either hydrogen cyanide, potassium cyanide, or sodium cyanide which is manufactured as the intended product of a CCMPU or a byproduct of the Sohio process. Other hydrogen cyanide, potassium cyanide, or sodium cyanide byproducts, impurities, wastes, and trace contaminants are not considered to be cyanide chemicals products.

Dry-end process vent means a process vent originating from the drum filter or any other unit operation in the dry end of a sodium cyanide manufacturing process unit. For the purposes of this subpart, the dry end of the sodium cyanide process unit begins in the unit operation where water is removed from the sodium cyanide, usually in the drum filter, and ends when the sodium cyanide is used as a raw material in a downstream process, or is shipped offsite.

Free cyanide means chemical species of cyanide that are dissolved in water and are bioavailable and known for their toxic effects on living organisms. This refers to the sum of molecular hydrogen cyanide (HCN) and cyanide ion (CN^M) dissolved in water. Included in this definition are the dissolved products of cyanide salts (including potassium cyanide [KCN] and sodium cyanide [NaCN]), as these salts dissociate to cyanide ion and hydrogen cyanide when added to water.

Organic HAP means, for purposes of applicability of the requirements of

this subpart, all hydrogen cyanide compounds.

Raw hydrogen cyanide means hydrogen cyanide that has not been through the refining process. Raw hydrogen cyanide usually has a hydrogen cyanide concentration less than 10 percent.

Refined hydrogen cyanide means hydrogen cyanide that has been through the refining process. Refined hydrogen cyanide usually has a hydrogen cyanide concentration greater than 99 percent.

Refining process means the collection of equipment in a cyanide chemicals manufacturing processing unit used to concentrate raw hydrogen cyanide from a concentration around 10 percent or less to refined hydrogen cyanide at a concentration greater than 99 percent.

Sodium cyanide process unit means a process unit that produces sodium cyanide by reacting hydrogen cyanide and sodium hydroxide via the neutralization, or wet, process. A sodium cyanide process unit begins at the unit operation where refined hydrogen cyanide is reacted with sodium hydroxide and ends at the point the solid sodium cyanide product is shipped offsite or used as a raw material in a downstream process. If raw hydrogen cyanide is reacted with sodium hydroxide to form sodium cyanide prior to the hydrogen cyanide refining process, the unit operation where sodium cyanide is formed is not considered to be part of the sodium cyanide process unit. For this type of process, the sodium cyanide process unit begins at the point that the aqueous sodium cyanide stream leaves the unit operation where the sodium cyanide is formed. In situations where potassium hydroxide is substituted for sodium hydroxide to produce potassium cyanide, the process unit is still considered a sodium cyanide process unit.

Sohio hydrogen cyanide process unit means a process unit that produces hydrogen cyanide as a byproduct of the acrylonitrile production process when acrylonitrile is manufactured using the Sohio process. A Sohio hydrogen cyanide process unit begins at the point the hydrogen cyanide leaves the unit operation where the hydrogen cyanide is separated from the acrylonitrile (usually referred to as the heads column). The Sohio hydrogen cyanide process unit ends at the point refined hydrogen cyanide is reacted as a raw material in a downstream process, burned on-site as fuel in a boiler or industrial furnace, or is shipped offsite. If raw hydrogen cyanide is reacted with sodium hydroxide to form sodium cyanide prior to the refining process, the unit operation where sodium cyanide is formed is considered to be part of the Sohio hydrogen cyanide process unit.

Wet-end process vent means a process vent originating from the reactor, crystallizer, or any other unit operation in the wet end of the sodium cyanide process unit. For the purposes of this subpart, the wet end of the sodium cyanide process unit begins at the point at which the raw materials are stored and ends just prior to the unit operation where water is removed from the sodium cyanide, usually in the drum filter. Wastewater streams containing discarded wastewater from the sodium cyanide production process are not considered to be part of the wet-end sodium cyanide process. Discarded wastewater that is no longer used in the production process is considered to be process and/or maintenance wastewater. Vents from process and maintenance wastewater operations are not wet-end process vents.

(3) *Requirements.* Table 9 to this section specifies the cyanide chemicals manufacturing standards applicable to existing and new sources. Applicability assessment procedures and methods are specified in § 63.1104. An owner or operator of an affected source is not required to perform applicability tests or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Before May 18, 2022, minimization of emissions from startup, shutdown, and malfunctions must be addressed in the startup, shutdown, and malfunction plan required by § 63.1111; the plan must also establish reporting and recordkeeping of such events. A startup, shutdown, and malfunction plan is not required on and after May 18, 2022 and the requirements specified

in § 63.1111 no longer apply; however, for historical compliance purposes, a copy of the plan must be retained and available on-site for 5 years after May 18, 2022. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

(4) *Determination of overall HAP emission reduction for a process unit.* (i) The owner or operator shall determine the overall HAP emission reduction for process vents in a process unit using Equation 1 of this section. The overall organic HAP emission reduction shall be determined for all process vents in the process unit.

$$RED_{CCMPU} = \left(\frac{\sum_{i=1}^{n} \left(E_{unc,i}\right)\left(\frac{R_i}{100}\right)}{\sum_{i=1}^{n} \left(E_{unc,i}\right) + \sum_{j=1}^{m} \left(E_{unc,j}\right)} \right) * 100 \qquad \text{[Equation 1]}$$

Where:

RED_{CCMPU} = Overall HAP emission reduction for the group of process vents in the CCMPU, percent.

E_{unc},i = Uncontrolled HAP emissions from process vent i that is controlled by using a combustion, recovery, or recapture device, kg/yr.

n = Number of process vents in the process unit that are controlled by using a combustion, recovery, or recapture device.

R_i = Control efficiency of the combustion, recovery, or recapture device used to control HAP emissions from vent i, determined in accordance with paragraph (g)(4)(ii) of this section.

E_{unc},j = Uncontrolled HAP emissions from process vent j that is not controlled by using a combustion, recovery, or recapture device, kg/yr.

m = Number of process vents in the process unit that are not controlled by using a combustion, recovery, or recapture device.

(ii) The control efficiency shall be assigned as specified in paragraph (g)(4)(ii) (A) or (B) of this section.

(A) If the process vent is controlled using a flare in accordance with the provisions of § 63.987, or a combustion device in accordance with the provisions of § 63.988(b)(2), for which a performance test has not been conducted, the control efficiency shall be assumed to be 98 weight-percent. For hydrogen-fueled flares, an owner or operator may use a control efficiency greater than 98 weight-percent if they can provide engineering calculations and supporting information demonstrating a greater control efficiency.

(B) If the process vent is controlled using a combustion, recovery, or recapture device for which a performance test has been conducted in accordance with the provisions of § 63.997, the control efficiency shall be the efficiency determined by the performance test.

(5) *Source category specific modifications to testing procedures.* (i) When identifying equipment subject to any equipment leak requirements, an owner or operator is allowed to designate specific components of such equipment as never being safe to monitor with their Notification of Compliance Status report and periodic compliance reports. In order for an owner or operator to designate such equipment as never being safe to monitor, they must certify that monitoring such equipment at any time the CCMPU is operating is never safe (e.g., monitoring this equipment would present an unreasonable hazard or preclude testing personnel from meeting emergency evacuation requirements). If it is demonstrated to the Administrator's satisfaction that equipment designated by the owner or operator as never safe to monitor is appropriately designated, an owner or operator will not be required to monitor such equipment.

(ii) For process vent hydrogen cyanide emissions that are vented to a control device other than a flare during startup, shutdown, and malfunction, the design evaluation must include documentation that the control device

being used achieves the required control efficiency during the reasonably expected maximum flow rate and emission rate during startup, shutdown, and malfunction.

(iii) If a facility controls process vent emissions during startup, shutdown, and malfunction by using a flare, an owner or operator is not required to perform flow rate and heat content testing as specified in § 63.987(b)(3)(ii) and (iii). In lieu of performing flow rate and heat content testing, an owner or operator is required to submit engineering calculations that substantiate that a flare meets the applicable heat content or flow rates, or provide data from a compliance assessment that the flare is in compliance under worst case conditions (e.g., maximum operating conditions).

(iv) If flare velocity and net heating value testing, as specified in § 63.11(b)(6)(ii) and (b)(7)(i), would create an unreasonable hazard for testing personnel, an owner or operator is allowed to submit engineering calculations that substantiate vent stream velocity and heat content of a flare in lieu of test data. These calculations are required to be submitted with the facilities' compliance test notification report for approval by the Administrator.

(v) The data from any performance test method used to measure HCN concentrations must be validated using EPA Method 301 (40 CFR part 63, appendix A).

(vi) For compliance with the wastewater free cyanide analysis provisions of table 9 to § 63.1103(g), free cyanide is to be measured according to ASTM D4282–15 or ASTM D7237–18 (both incorporated by reference, see § 63.14).

(6) *Startup, shutdown, and malfunction referenced provisions.* Beginning no later than the compliance dates specified in § 63.1102(d), the referenced provisions specified in paragraphs (g)(6)(i) through (xxiii) of this section do not apply when demonstrating compliance with paragraph (g)(3) of this section.

(i) The second/last sentence of § 63.983(a)(5) (requirements for pressure relief devices in a transfer rack's closed vent system requirements) of subpart SS: ''Pressure relief devices needed for safety purposes are not subject to this paragraph.''

(ii) The phrase ''except during periods of start-up, shutdown and malfunction as specified in the referencing subpart'' in § 63.984(a) of subpart SS (equipment and operating requirements for fuel gas systems and processes requirements).

(iii) The phrase ''except during periods of start-up, shutdown and malfunction as specified in the referencing subpart'' in § 63.985(a) of subpart SS (nonflare control device equipment and operating requirements).

(iv) The phrase ''other than startups, shutdowns, or malfunctions'' in § 63.994(c)(1)(ii)(D) of subpart SS (halogen scrubber and other halogen reduction device monitoring requirements).

(v) Section 63.996(c)(2)(ii) of subpart SS (operation and maintenance of continuous parameter monitoring systems) ''(ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in § 63.998(c)(1)(ii)(E).''

(vi) The last sentence of § 63.997(e)(1)(i) (performance test procedures) of subpart SS (general procedures for continuous unit operations): ''Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.''

(vii) Section 63.998(b)(2)(iii) (excluded data) of subpart SS: ''(iii) Startups, shutdowns, and malfunctions, if the owner or operator operates the source during such periods in accordance with § 63.1111(a) and maintains the records specified in paragraph (d)(3) of this section.''

(viii) The phrase ''other than periods of startups, shutdowns, and malfunctions'' from § 63.998(b)(5)(i)(A) (alternative recordkeeping) of subpart SS.

(ix) The phrase ''other than a startup, shutdown, or malfunction'' from § 63.998(b)(5)(i)(B)(3) (alternate recordkeeping) of subpart SS.

(x) The phrase ''other than periods of startups, shutdowns, and malfunctions'' from § 63.998(b)(5)(i)(C) (alternate recordkeeping) of subpart SS.

(xi) The phrase ''other than a startup, shutdown, or malfunction'' from § 63.998(b)(5)(ii)(C) (alternate recordkeeping) of subpart SS.

(xii) The phrase ''except as provided in paragraphs (b)(6)(i)(A) and (B) of this section'' from § 63.998(b)(6)(i) (alternative recordkeeping) of subpart SS.

(xiii) The second sentence of § 63.998(b)(6)(ii) (alternative recordkeeping) of subpart SS. ''If a source has developed a startup, shutdown and malfunction plan, and a monitored parameter is outside its established range or monitoring data are not collected during periods of startup, shutdown, or malfunction (and the source is operated during such periods in accordance with § 63.1111(a)) or during periods of nonoperation of the process unit or portion thereof (resulting in cessation of the emissions to which monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count as the excused excursion for determining compliance.''

(xiv) Section 63.998(c)(1)(ii)(D) through (G) (nonflare control and recovery device regulated source monitoring records) of subpart SS.

(xv) Section 63.998(d)(3) (regulated source and control equipment start-up, shutdown and malfunction records) of subpart SS.

(xvi) The phrase ''may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or'' from § 63.1005(e)(4)(i) (leak repair records written procedures) of subpart TT.

(xvii) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1007(e)(1)(ii)(A) (dual mechanical seal system special provisions for pumps) of subpart TT.

(xviii) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1009(e)(1)(i)(A) (dual mechanical seal system special provisions for agitators) of subpart TT.

(xix) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1012(b)(1) (compressor seal system standard) of subpart TT.

(xx) The phrase ''may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or'' from § 63.1024(f)(4)(i) (leak repair records written procedures) of subpart UU.

(xxi) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1026(e)(1)(ii)(A) (dual mechanical seal system special provisions for pumps) of subpart UU.

(xxii) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1028(e)(1)(i)(A) (dual mechanical seal system special provisions for agitators of subpart UU.

(xxiii) The phrase ''(except periods of startup, shutdown, or malfunction)'' from § 63.1031(b)(1) (compressor seal system standard) of subpart UU.

TABLE 9 TO § 63.1103(g)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A CYANIDE CHEMICALS MANUFACTURING EXISTING OR NEW AFFECTED SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
(a) A storage vessel	(1) The storage vessel contains refined hydrogen cyanide.	(i) Reduce emissions of hydrogen cyanide by using a flare meeting the requirements of § 63.982(b); or (ii) Reduce emissions of hydrogen cyanide by 98 weight-percent, or to a concentration of 20 parts per million by volume, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of § 63.982(c)(1) or (d).

TABLE 9 TO § 63.1103(g)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A CYANIDE CHEMICALS MANUFACTURING EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
(b) A process vent from a continuous unit operations in an Andrussow, BMA, or Sohio hydrogen cyanide process unit.	.....	(i) Reduce overall annual emissions of total HAP from the collection of process vents from continuous unit operations in the process by 98 weight-percent in accordance with paragraph (g)(4) of this section. Any control device used to reduce emissions from one or more process vents from continuous unit operations in the process unit must meet the applicable requirements specified in § 63.982(a)(2); or (ii) Reduce emissions of total HAP from each process vent from a continuous unit operation in the process unit by using a flare meeting the requirements specified in § 63.982(b); or (iii) Reduce emissions of total HAP from each process vent from a continuous unit operation in the process unit by 98 weight-percent or to a concentration of 20 parts per million by volume, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of § 63.982(c)(2) or (d).
(c) One or more wet end process vents, as defined in paragraph (g)(2) of this section, in a sodium cyanide process unit.	.....	(i) Reduce overall annual emissions of total HAP from the collection of process vents from continuous unit operations in the process unit by 98 weight-percent in accordance with paragraph (g)(4) of this section. Any control device used to reduce emissions from one or more process vents from continuous unit operations in the process unit must meet the applicable requirements of § 63.982(a)(2); or (ii) Reduce emissions of total HAP from each wet-end process vent in the process unit by using a flare meeting the requirements of § 63.982(b); or (iii) Reduce emissions of total HAP from each wet-end process vent by 98 weight-percent, or to a concentration of 20 parts per million by volume, by venting emissions through a closed vent system and any combination of control devices meeting the requirements of § 63.982(c)(2) or (d).
(d) One or more dry end process vents, as defined in paragraph (g)(2) of this section, in a sodium cyanide process unit.	.....	(i) Reduce overall annual emissions of sodium cyanide from the collection of process vents from continuous unit operations in the process unit by 98 weight-percent in accordance with paragraph (g)(4) of this section. Any control device used to reduce emissions from one or more process vents from continuous unit operations in the process unit must meet the applicable requirements of § 63.982(a)(2); or (ii) Reduce emissions of sodium cyanide from each dry-end process vent in the process unit by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of § 63.982(c)(2) or (d).

TABLE 9 TO § 63.1103(g)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A CYANIDE CHEMICALS MANUFACTURING EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
(e) A transfer rack	(1) The transfer rack is used to load refined hydrogen cyanide into tank trucks and/or rail cars.	(i) Reduce emissions of hydrogen cyanide by using a flare meeting the requirements of § 63.982(b); or (ii) Reduce emissions of hydrogen cyanide by 98 weight-percent, or to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements specified in § 63.982(c)(1), (c)(2), or (d).
(f) A new cyanide chemicals manufacturing process unit that generates process wastewater.	(1) The process wastewater is from HCN purification, ammonia purification, or flare blowdown.	(i) Achieve a combined removal and control of HAP from wastewater of 93 weight-percent; and (ii) Beginning no later than the compliance dates specified in § 63.1102(d), waste management units upstream of an open or closed biological treatment process shall meet the requirements of § 63.133 through § 63.137 of subpart G of this part, as applicable.
(g) An existing cyanide chemicals manufacturing process unit that generates process wastewater.	(1) The process wastewater stream is from HCN purification, ammonia purification, or flare blowdown; and. (2) the total annual average concentration of Table 9 of 40 CFR part 63, subpart G compounds (Table 9 compounds) and free cyanide measured according to § 63.1103(g)(5)(vi) from each process wastewater stream are greater or equal to 10,000 ppmw at any flow rate, or the total annual average concentration of Table 9 compounds and free cyanide from each process wastewater stream are greater or equal to 1,000 ppmw, and the annual average flow rate is greater or equal to 10 liters per minute, according to the procedures in § 63.144(a).	(i) Beginning no later than the compliance dates specified in § 63.1102(d), comply with the requirements of § 63.138(a)(1). (ii) For compliance options and calculations requiring an Fr value under § 63.138(a)(1); owners and operators may use a value of 0.93 for free cyanide.
(h) A cyanide chemicals manufacturing process unit that generates maintenance wastewater.	(1) The maintenance wastewater contains hydrogen cyanide or acetonitrile.	(i) Comply with the requirements of § 63.1106(b).
(i) An item of equipment listed in § 63.1106(c)(1) that transports or contains wastewater liquid streams from a cyanide chemicals manufacturing process unit.	(1) The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	(i) Comply with the requirements in Table 35 of subpart G of this part.
(j) Equipment, as defined under § 63.1101	(1) The equipment contains or contacts hydrogen cyanide and operates equal to or greater than 300 hours per year.	(i) Comply with either subpart TT or UU of this part, and paragraph (g)(5) of this section, with the exception that open-ended lines that contain or contact hydrogen cyanide are exempt from any requirements to install a cap, plug, blind flange, or second valve to be capped.

(h) *Spandex production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source.* For the spandex production (as defined in paragraph (h)(2) of this section) source category, the affected source shall comprise all emission points listed in paragraphs (h)(1)(i)(A) through (C) of this section that are associated with a spandex production process unit located at a major source, as defined in section 112(a) of the Act.

(A) All process vents (as defined in § 63.1101).

(B) All storage vessels (as defined in § 63.1101) that store liquids containing organic HAP.

(C) All spandex fiber spinning lines using a spinning solution having organic HAP.

(ii) *Exceptions.* The emission points listed in paragraphs (h)(1)(ii)(A) and (B) of this section are in the spandex production source category but are not subject to the requirements of paragraph (h)(3) of this section.

(A) Equipment that is located within a spandex production process unit that is subject to this subpart but does not contain organic HAP.

(B) Vessels storing organic liquids that contain organic HAP as impurities.

(C) Emission points listed in paragraphs (h)(1)(i)(A) through (C) of this section that are associated with a dry spinning spandex production process unit.

(iii) *Compliance schedule.* The compliance schedule for affected sources, as defined in paragraph (h)(1)(i) of this section, is specified in paragraph (b) of § 63.1102.

(2) *Definitions. Dry spinning* means a fiber-forming process where prepolymer is reacted with a chain-extender to generate polymer prior to spinning; the polymer is dissolved in a solvent and is extruded into a cell of hot gases for fiber formation.

Fiber spinning line means the group of equipment and process vents associated with spandex fiber spinning operations. The fiber spinning line includes the blending and dissolving tanks, spinning solution filters, spinning units, spin bath tanks, and the equipment used downstream of the spin bath to wash, draw, or dry on the wet belt the spun fiber.

Reaction spinning means a fiber-forming process where prepolymer is extruded into a spin bath that contains a chain-extender; the chemical reaction to make polymer occurs simultaneously with extrusion/fiber formation.

Spandex or spandex fiber means a manufactured synthetic fiber in which the fiber-forming substance is a long-chain polymer comprised of at least 85 percent by mass of a segmented polyurethane.

Spandex production means the production of synthetic spandex fibers.

Spandex production process unit means a process unit that is specifically used for the production of synthetic spandex fibers.

(3) *Requirements.* Table 10 to this section specifies the spandex production source category requirements for new and existing sources. An owner or operator must perform the applicability assessment procedures and methods for process vents specified in § 63.1104, excluding paragraphs (b)(1), (d), (g), (h), (i), (j), (l)(1), and (n). General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Minimization of emissions from startup, shutdown, and malfunctions must be addressed in the startup, shutdown, and malfunction plan required by § 63.1111; the plan must also establish reporting and recordkeeping of such events. Procedures for approval of alternate means of emission limitations are specified in § 63.1113.

TABLE 10 TO § 63.1103(h)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A SPANDEX PRODUCTION PROCESS UNIT AT A NEW OR EXISTING SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
(a) A storage vessel (as defined in § 63.1101) that stores liquid containing organic HAP.	(1) The maximum true vapor pressure of the organic HAP is ≥3.4 kilopascals; and the capacity of the vessel is ≥47 cubic meters.	(i) Comply with the requirements of subpart WW of this part; or (ii) Reduce emissions of organic HAP by 95 weight-percent by venting emissions in through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in § 63.982(a)(1).

TABLE 10 TO § 63.1103(h)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A SPANDEX PRODUCTION PROCESS UNIT AT A NEW OR EXISTING SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
(b) A process vent		Reduce emissions of organic HAP by 95 weight-percent, or reduce organic HAP or TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of § 63.982(a)(2).
(c) A fiber spinning line		Operate the fiber spinning line such that emissions are captured and vented through a line closed vent system to a control device that complies with the requirements of § 63.982(a)(2). If a control device other than a flare is used, HAP emissions must be reduced by 95 weight-percent, or total organic HAP or TOC must be reduced to a concentration of 20 parts per million by volume, whichever is less stringent.

[64 FR 34921, June 29, 1999, as amended at 64 FR 63699, 63706, Nov. 22, 1999; 64 FR 71852, Dec. 22, 1999; 66 FR 55847, Nov. 2, 2001; 67 FR 39305, June 7, 2002; 67 FR 46281, July 12, 2002; 67 FR 46293, July 12, 2002; 70 FR 19272, Apr. 13, 2005; 79 FR 60922, Oct. 8, 2014; 85 FR 40425, July 6, 2020; 86 FR 66123, Nov. 19, 2021; 89 FR 23864, Apr. 4, 2024]

§ 63.1104 Process vents from continuous unit operations: applicability assessment procedures and methods.

(a) *General.* The provisions of this section provide calculation and measurement methods for criteria that are required by § 63.1103 to be used to determine applicability of the control requirements for process vents from continuous unit operations. The owner or operator of a process vent is not required to determine the criteria specified for a process vent that is being controlled (including control by flare) in accordance with the applicable weight-percent, TOC concentration, or organic HAP concentration requirement in § 63.1103.

(b) *Sampling sites.* For purposes of determining process vent applicability criteria, the sampling site shall be located as specified in (b)(1) through (4) of this section, as applicable.

(1) *Sampling site location if TRE determination is required.* If the applicability criteria specified in the applicable table of § 63.1103 includes a TRE index value, the sampling site for determining volumetric flow rate, regulated organic HAP concentration, total organic HAP or TOC concentration, heating value, and TRE index value, shall be after the final recovery device (if any recovery devices are present) but prior to the inlet of any control device that is present, and prior to release to the atmosphere.

(2) *Sampling site location if TRE determination is not required.* If the applicability criteria specified in the applicable table of § 63.1103 does not include a TRE index value, the sampling site for determining volumetric flow rate, regulated organic HAP concentration, total organic HAP or TOC concentration, and any other specified parameter shall be at the exit from the unit operation before any control device.

(3) *Sampling site selection method.* Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling site. No traverse site selection method is needed for process vents smaller than 0.10 meter (0.33 foot) in nominal inside diameter.

(4) *Sampling site when a halogen reduction device is used prior to a combustion device.* An owner or operator using a scrubber to reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour (0.99 pound per hour) prior to a combustion

control device in compliance with § 63.1103 (as appropriate) shall determine the halogen atom mass emission rate prior to the combustion device according to the procedures in paragraph (i) of this section.

(c) *Applicability assessment requirements.* The TOC or organic HAP concentrations, process vent volumetric flow rates, process vent heating values, process vent TOC or organic HAP emission rates, halogenated process vent determinations, process vent TRE index values, and engineering assessments for process vent control applicability assessment requirements are to be determined during maximum representative operating conditions for the process, except as provided in paragraph (d) of this section, or unless the Administrator specifies or approves alternate operating conditions. For acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, polycarbonate production affected sources, and ethylene production affected sources, operations during periods of malfunction shall not constitute representative conditions for the purpose of an applicability test. For all other affected sources, operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of an applicability test.

(d) *Exceptions.* For a process vent stream that consists of at least one process vent from a batch unit operation manifolded with at least one process vent from a continuous unit operation, the TRE shall be calculated during periods when one or more batch emission episodes are occurring that result in the highest organic HAP emission rate (in the combined vent stream that is being routed to the recovery device) that is achievable during the 6-month period that begins 3 months before and ends 3 months after the TRE calculation, without causing any of the situations described in paragraphs (d)(1) through (3) to occur.

(1) Causing damage to equipment;

(2) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(3) Necessitating that the owner or operator make product in excess of demand.

(e) *TOC or Organic HAP concentration.* The TOC or organic HAP concentrations shall be determined based on paragraph (e)(1), (e)(2), or (k) of this section, or any other method or data that have been validated according to the protocol in Method 301 of appendix A of 40 CFR part 63. For concentrations needed for comparison with the appropriate control applicability concentrations specified in § 63.1103, TOC or organic HAP concentration shall be determined based on paragraph (e)(1), (e)(2), or (k) of this section or any other method or data that has been validated according to the protocol in method 301 of appendix A of this part. The owner or operator shall record the TOC or organic HAP concentration as specified in paragraph (l)(3) of this section.

(1) *Method 18.* The procedures specified in paragraph (e)(1)(i) and (ii) of this section shall be used to calculate parts per million by volume concentration using method 18 of 40 CFR part 60, appendix A:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(ii) The concentration of either TOC (minus methane and ethane) or regulated organic HAP emissions shall be calculated according to paragraph (e)(1)(ii)(A) or (B) of this section, as applicable.

(A) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using Equation 1:

$$C_{TOC} = \frac{\sum_{i=1}^{x}\left(\sum_{j=1}^{n} C_{ji}\right)}{x} \qquad \text{[Eq. 1]}$$

Where:

C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

C_{ji} = Concentration of sample component j of the sample i, dry basis, parts per million by volume.
n = Number of components in the sample.
x = Number of samples in the sample run.

(B) The regulated organic HAP or total organic HAP concentration (C_{HAP}) shall be computed according to Equation 1 in paragraph (e)(1)(ii)(A) of this section except that only the regulated or total organic HAP species shall be summed, as appropriate.

(2) *Method 25A.* The procedures specified in paragraphs (e)(2)(i) through (vi) of this section shall be used to calculate parts per million by volume concentration using Method 25A of 40 CFR part 60, appendix A.

(i) Method 25A of 40 CFR part 60, appendix A shall be used only if a single organic HAP compound comprises greater than 50 percent of total organic HAP or TOC, by volume, in the process vent.

(ii) The process vent composition may be determined by either process knowledge, test data collected using an appropriate Environmental Protection Agency method or a method or data validated according to the protocol in Method 301 of appendix A of part 63. Examples of information that could constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current process vent conditions.

(iii) The organic compound used as the calibration gas for Method 25A of 40 CFR part 60, appendix A shall be the single organic HAP compound present at greater than 50 percent of the total organic HAP or TOC by volume.

(iv) The span value for Method 25A of 40 CFR part 60, appendix A shall be equal to the appropriate control applicability concentration value specified in the applicable table(s) presented in § 63.1103 of this subpart.

(v) Use of Method 25A of 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(vi) The owner or operator shall demonstrate that the concentration of TOC including methane and ethane measured by Method 25A of 40 CFR part 60, appendix A is below one-half the appropriate control applicability concentration specified in the applicable table for a subject source category in § 63.1103 in order to qualify for a low organic HAP concentration exclusion.

(f) *Volumetric flow rate.* The process vent volumetric flow rate (Q_S), in standard cubic meters per minute at 20 °C, shall be determined as specified in paragraph (f)(1) or (2) of this section and shall be recorded as specified in § 63.1109(d).

(1) Use Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate. If the process vent tested passes through a final steam jet ejector and is not condensed, the stream volumetric flow shall be corrected to 2.3 percent moisture; or

(2) The engineering assessment procedures in paragraph (k) of this section can be used for determining volumetric flow rates.

(g) *Heating value.* The net heating value shall be determined as specified in paragraphs (g)(1) and (2) of this section, or by using the engineering assessment procedures in paragraph (k) of this section.

(1) The net heating value of the process vent shall be calculated using Equation 2:

$$H_T = K_1\left(\sum_{j=1}^{n} D_j H_j\right) \qquad \text{[Eq. 2]}$$

Where:

H_T = Net heating value of the sample, megaJoule per standard cubic meter, where the net enthalpy per mole of process vent is based on combustion at 25 °C and 760 millimeters of mercury, but the standard temperature for determining the volume corresponding to 1 mole is 20 °C, as in the definition of Q_s (process vent volumetric flow rate).
K_1 = Constant, 1.740×10^{-7} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (megaJoule per kilocalorie), where standard temperature for (gram-mole per standard cubic meter) is 20 °C.
D_j = Concentration on a wet basis of compound j in parts per million, as measured by procedures indicated in paragraph (e)(2) of this section. For process vents that pass through a final steam jet and are not condensed, the moisture is assumed to be 2.3 percent by volume.

H_j = Net heat of combustion of compound j, kilocalorie per gram-mole, based on combustion at 25 °C and 760 millimeters mercury.

(2) The molar composition of the process vent (D_j) shall be determined using the methods specified in paragraphs (g)(2)(i) through (iii) of this section:

(i) Method 18 of 40 CFR part 60, appendix A to measure the concentration of each organic compound.

(ii) American Society for Testing and Materials D1946–90 to measure the concentration of carbon monoxide and hydrogen.

(iii) Method 4 of 40 CFR part 60, appendix A to measure the moisture content of the stack gas.

(h) *TOC or Organic HAP emission rate.* The emission rate of TOC (minus methane and ethane) (E_{TOC}) and the emission rate of the regulated organic HAP or total organic HAP (E_{HAP}) in the process vent, as required by the TRE index value equation specified in paragraph (j) of this section, shall be calculated using Equation 3:

$$E = K_2\left(\sum_{j=1}^{n} C_j M_j\right) Q_s \qquad \text{[Eq. 3]}$$

Where:

E = Emission rate of TOC (minus methane and ethane) (E_{TOC}) or emission rate of the regulated organic HAP or total organic HAP (E_{HAP}) in the sample, kilograms per hour.

K_2 = Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram/gram) (minutes/hour), where standard temperature for (gram-mole per standard cubic meter) is 20 °C.

n = Number of components in the sample.

C_j = Concentration on a dry basis of organic compound j in parts per million as measured by method 18 of 40 CFR part 60, appendix A as indicated in paragraph (e) of this section. If the TOC emission rate is being calculated, C_j includes all organic compounds measured minus methane and ethane; if the total organic HAP emission rate is being calculated, only organic HAP compounds are included; if the regulated organic HAP emission rate is being calculated, only regulated organic HAP compounds are included.

M_j = Molecular weight of organic compound j, gram/gram-mole.

Q_s = Process vent flow rate, dry standard cubic meter per minute, at a temperature of 20 °C.

(i) *Halogenated process vent determination.* In order to determine whether a process vent is halogenated, the mass emission rate of halogen atoms contained in organic compounds shall be calculated according to the procedures specified in paragraphs (i)(1) and (2) of this section. A process vent is considered halogenated if the mass emission rate of halogen atoms contained in the organic compounds is equal to or greater than 0.45 kilograms per hour.

(1) The process vent concentration of each organic compound containing halogen atoms (parts per million by volume, by compound) shall be determined based on one of the procedures specified in paragraphs (i)(1)(i) through (iv) of this section:

(i) Process knowledge that no halogen or hydrogen halides are present in the process vent, or

(ii) Applicable engineering assessment as discussed in paragraph (k) of this section, or

(iii) Concentration of organic compounds containing halogens or hydrogen halides as measured by Method 26 or 26A of 40 CFR part 60, appendix A, or

(iv) Any other method or data that have been validated according to the applicable procedures in method 301 of appendix A of this part.

(2) Equation 4 shall be used to calculate the mass emission rate of halogen atoms:

$$E = K_2 Q\left(\sum_{j=1}^{n}\sum_{i=1}^{m} C_j * L_{j,i} * M_{j,i}\right) \qquad \text{[Eq. 4]}$$

Where:

E = Mass of halogen atoms, dry basis, kilogram per hour,

K_2 = Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (kilogram-mole per standard cubic meter) (minute per hour), where standard temperature is 20 °C.

Q = Flow rate of gas stream, dry standard cubic meters per minute, determined according to paragraph (f)(1) or (f)(2) of this section.

n = Number of halogenated compounds j in the gas stream.

j = Halogenated compound j in the gas stream.

m = Number of different halogens i in each compound j of the gas stream.

i = Halogen atom i in compound j of the gas stream.

C_j = Concentration of halogenated compound j in the gas stream, dry basis, parts per million by volume.

L_{ji} = Number of atoms of halogen i in compound j of the gas stream.

M_{ji} = Molecular weight of halogen atom i in compound j of the gas stream, kilogram per kilogram-mole.

(j) *TRE index value.* The owner or operator shall calculate the TRE index value of the process vent using the equations and procedures in this paragraph, as applicable, and shall maintain records specified in paragraph (l)(1) or (m)(2) of this section, as applicable.

(1) *TRE index value equation.* The equation for calculating the TRE index value is Equation 5:

$$TRE = 1/E_{HAP}*[A + B(Q_S) + C(H_T) + D(E_{TOC})] \quad [Eq. 5]$$

Where:

TRE = TRE index value.

A, B, C, D = Coefficients presented in table 1 of this section.

E_{HAP} = Emission rate of total organic HAP, kilograms per hour, as calculated according to paragraph (h) or (k) of this section.

Q_S = process vent flow rate, standard cubic meters per minute, at a standard temperature of 20 °C, as calculated according to paragraph (f) or (k) of this section.

H_T = process vent net heating value, megaJoules per standard cubic meter, as calculated according to paragraph (g) or (k) of this section.

E_{TOC} = Emission rate of TOC (minus methane and ethane), kilograms per hour, as calculated according to paragraph (h) or (k) of this section.

TABLE 1 OF § 63.1104(j)(1)—COEFFICIENTS FOR TOTAL RESOURCE EFFECTIVENESS [a]

Existing or new?	Halogenated vent stream?	Control device basis	Values of coefficients			
			A	B	C	D
Existing	Yes	Thermal Incinerator and Scrubber.	3.995	5.200×10^{-2}	-1.769×10^{-3}	9.700×10^{-4}
	No	Flare	1.935	3.660×10^{-1}	-7.687×10^{-3}	-7.333×10^{-4}
		Thermal Incinerator 0 Percent Recovery.	1.492	6.267×10^{-2}	3.177×10^{-2}	-1.159×10^{-3}
		Thermal Incinerator 70 Percent Recovery.	2.519	1.183×10^{-2}	1.300×10^{-2}	4.790×10^{-2}
New	Yes	Thermal Incinerator and Scrubber.	1.0895	1.417×10^{-2}	-4.822×10^{-4}	2.645×10^{-4}
	No	Flare	5.276×10^{-1}	9.98×10^{-2}	-2.096×10^{-3}	2.000×10^{-4}
		Therman Incinerator 0 Percent Recovery.	4.068×10^{-1}	1.71×10^{-2}	8.664×10^{-3}	-3.162×10^{-4}
		Thermal Incinerator 70 Percent Recovery.	6.868×10^{-1}	3.209×10^{-3}	3.546×10^{-3}	1.306×10^{-2}

[a] Use according to procedures outlined in this section.
MJ/scm = Mega Joules per standard cubic meter.
scm/min = Standard cubic meters per minute.

(2) *Nonhalogenated process vents.* The owner or operator of a nonhalogenated process vent shall calculate the TRE index value by using the equation and appropriate nonhalogenated process vent parameters in table 1 of this section for process vents at existing and new sources. The lowest TRE index value is to be selected.

(3) *Halogenated process vents.* The owner or operator of a halogenated process vent stream, as determined according to procedures specified in paragraph (i) or (k) of this section, shall calculate the TRE index value using the appropriate halogenated process vent parameters in table 1 of this section for existing and new sources.

(k) *Engineering assessment.* For purposes of TRE index value determinations, engineering assessments may be used to determine process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate for the representative operating condition expected to yield the lowest TRE index value. Engineering assessments shall meet the requirements of

paragraphs (k)(1) through (4) of this section. If a process vent flow rate or process vent organic HAP or TOC concentration is being determined for comparison with the applicable flow rate or concentration value presented in the tables in § 63.1103 to determine control requirement applicability, engineering assessment may be used to determine the flow rate or concentration for the representative operating conditions expected to yield the highest flow rate or concentration.

(1) If the TRE index value calculated using such engineering assessment and the TRE index value equation in paragraph (j) of this section is greater than 4.0, then the owner or operator is not required to perform the measurements specified in paragraphs (e) through (i) of this section.

(2) If the TRE index value calculated using such engineering assessment and the TRE index value equation in paragraph (j) of this section is less than or equal to 4.0, then the owner or operator is required either to perform the measurements specified in paragraphs (e) through (i) of this section for control applicability assessment or comply with the requirements (or standards) specified in the tables presented in § 63.1103 (as applicable).

(3) Engineering assessment includes, but is not limited to, the examples specified in paragraphs (k)(3)(i) through (iv) of this section:

(i) Previous test results, provided the tests are representative of current operating practices at the process unit.

(ii) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(iii) Maximum flow rate, TOC emission rate, organic HAP emission rate, organic HAP or TOC concentration, or net heating value limit specified or implied within a permit limit applicable to the process vent.

(iv) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to those specified in paragraphs (k)(3)(iv)(A) through (k)(3)(iv)(D) of this section:

(A) Use of material balances based on process stoichiometry to estimate maximum TOC or organic HAP concentrations,

(B) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities,

(C) Estimation of TOC or organic HAP concentrations based on saturation conditions, and

(D) Estimation of maximum expected net heating value based on the stream concentration of each organic compound or, alternatively, as if all TOC in the stream were the compound with the highest heating value.

(4) All data, assumptions, and procedures used in the engineering assessment shall be documented. The owner or operator shall maintain the records specified in paragraphs (l)(1) through (4) of this section, as applicable.

(l) *Applicability assessment recordkeeping requirements*—(1) *TRE index value records.* The owner or operator shall maintain records of measurements, engineering assessments, and calculations performed to determine the TRE index value of the process vent according to the procedures of paragraph (j) of this section, including those records associated with halogen vent stream determination. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments, as specified in paragraph (k) of this section. As specified in paragraph (m) of this section, the owner or operator shall include this information in the Notification of Compliance Status report required by § 63.1110(a)(4) .

(2) *Flow rate records.* The owner or operator shall record the flow rate as measured using the sampling site and flow rate determination procedures (if applicable) specified in paragraphs (b) and (f) of this section or determined through engineering assessment as specified in paragraph (k) of this section. As specified in paragraph (m) of this section, the owner or operator shall include this information in the Notification of Compliance Status report required by § 63.1110(a)(4).

(3) *Concentration records.* The owner or operator shall record the regulated organic HAP or TOC concentration (if

applicable) as measured using the sampling site and regulated organic HAP or TOC concentration determination procedures specified in paragraphs (e)(1) and (2) of this section, or determined through engineering assessment as specified in paragraph (k) of this section. As specified in paragraph (m) of this section, the owner or operator shall include this information in the Notification of Compliance Status report required by §63.1110(a)(4).

(4) *Process change records.* The owner or operator shall keep up-to-date, readily accessible records of any process changes that change the control applicability for a process vent. Records are to include any recalculation or measurement of the flow rate, regulated organic HAP or TOC concentration, and TRE index value.

(m) *Applicability assessment reporting requirements*—(1) *Notification of Compliance Status.* The owner or operator shall submit, as part of the Notification of Compliance Status report required by §63.1110(a)(4), the information recorded in paragraph (l)(1) through (3) of this section.

(2) *Process change.* (i) Whenever a process vent becomes subject to control requirements under this subpart as a result of a process change, the owner or operator shall submit a report within 60 days after the performance test or applicability assessment, whichever is sooner. The report may be submitted as part of the next Periodic Report required by §63.1110(a)(5). The report shall include the information specified in paragraphs (m)(2)(i)(A) through (C) of this section.

(A) A description of the process change;

(B) The results of the recalculation of the TOC or organic HAP concentration, flow rate, and/or TRE index value required under paragraphs (e), (f), and (j), and recorded under paragraph (l); and

(C) A statement that the owner or operator will comply with the requirements specified in §63.1103 by the schedules specified in that section for the affected source.

(ii) If a performance test is required as a result of a process change, the owner or operator shall specify that the performance test has become necessary due to a process change. This specification shall be made in the performance test notification to the Administrator, as specified in §63.999(a)(1).

(iii) If a process change does not result in additional applicable requirements, then the owner or operator shall include a statement documenting this in the next Periodic Report required by §63.1110(a)(5) after the process change was made.

(n) *Parameter monitoring of certain process vents.* An owner or operator who maintains a TRE index value (if applicable) in the applicable TRE index value monitoring range as specified in an applicable table presented in §63.1103 of this subpart without using a recovery device shall report a description of the parameter(s) to be monitored to ensure the process vent is operated in conformance with its design or process and achieves and maintains the TRE index value above the specified level, and an explanation of the criteria used to select parameter(s). An owner or operator who maintains a TRE index value (if applicable) in the applicable TRE index monitoring range as specified in an applicable table presented in §63.1103 of this subpart by using a recovery device shall comply with the requirements of §63.993(c).

[64 FR 34921, June 29, 1999, as amended at 64 FR 63708, Nov. 22, 1999; 67 FR 39307, June 7, 2002; 67 FR 42688, July 12, 2002; 79 FR 60926, Oct. 8, 2014; 85 FR 40432, July 6, 2020; 86 FR 66126, Nov. 19, 2021]

§63.1105 Transfer racks.

(a) *Design requirements.* Except as specified in paragraph (a)(5) of this section, the owner or operator shall equip each transfer rack with one of the control options listed in paragraphs (a)(1) through (5) of this section.

(1) A closed vent system designed to collect HAP-containing vapors displaced from tank trucks or railcars during loading and to route the collected vapors to a flare. The owner or operator must meet the requirements of §63.982(a)(3).

(2) A closed vent system designed to collect HAP-containing vapors displaced from tank trucks or railcars during loading and to route the collected vapors to a control device other than a flare. The owner or operator

must meet the requirements of § 63.982(a)(3).

(3) Process piping designed to collect the HAP vapors displaced from tank trucks or railcars during loading and to route the collected vapors to a process where the HAP vapors shall predominantly meet one of, or a combination of, the ends specified in paragraphs (a)(3)(i) through (iv) of this section or to a fuel gas system. The owner or operator must meet the requirements of § 63.982(a)(3).

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not HAP;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(4) Process piping designed to collect the HAP vapors displaced from tank trucks or railcars during loading and to route the collected vapors to a vapor balance system. The vapor balance system must be designed to route the collected HAP vapors to the storage vessel from which the liquid being loaded originated, or to another storage vessel connected to a common header, or to compress and route collected HAP vapors to a process.

(5) Beginning no later than the compliance dates specified in § 63.1102(c), if emissions are vented through a closed vent system to a flare at an ethylene production affected source, then the owner or operator must comply with the requirements specified in § 63.1103(e)(4) instead of the requirements in § 63.987 and the provisions regarding flare compliance assessments at § 63.997(a) through (c).

(b) *Operating requirements.* An owner or operator of a transfer rack shall operate it in such a manner that emissions are routed through the equipment specified in paragraph (a) of this section.

(c) *Control device operation.* Whenever HAP emissions are vented to a control device used to comply with the provisions of this subpart, such control device shall be operating.

(d) *Tank trucks and railcars.* The owner or operator shall load HAP-containing materials only into tank trucks and railcars that meet the requirement in paragraph (d)(1) or (2) of this section and shall maintain the records specified in paragraph (i) of this section.

(1) Have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars; or

(2) Have been demonstrated to be vapor-tight within the preceding 12 months as determined by the procedures in paragraph (h) of this section. Vapor-tight means that the pressure in a truck or railcar tank will not drop more than 750 pascals within 5 minutes after it is pressurized to a minimum of 4,500 pascals.

(e) *Pressure relief device.* The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the loading equipment of each tank truck or railcar shall begin to open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to the requirements of this paragraph.

(f) *Compatible system.* The owner or operator of a transfer rack subject to the provisions of this subpart shall load HAP-containing materials only to tank trucks or railcars equipped with a vapor collection system that is compatible with the transfer rack's closed vent system or process piping.

(g) *Loading while systems connected.* The owner or operator of a transfer rack subject to this subpart shall load HAP-containing material only to tank trucks or railcars whose collection systems are connected to the transfer rack's closed vent system or process piping.

(h) *Vapor tightness procedures.* For the purposes of demonstrating vapor tightness to determine compliance with paragraph (d)(2) of this section, the procedures and equipment specified in paragraphs (h)(1) and (2) shall be used.

(1) The pressure test procedures specified in Method 27 of appendix A to 40 CFR part 60.

(2) A pressure measurement device that has a precision of ±2.5 millimeters of mercury or better and that is capable of measuring above the pressure at which the tank truck or railcar is to be tested for vapor tightness.

(i) *Recordkeeping*. The owner or operator of a transfer rack shall record that the verification of DOT tank certification or Method 27 of appendix A to 40 CFR part 60 testing required in § 63.84(c) has been performed. Various methods for the record of verification can be used, such as a check-off on a log sheet, a list of DOT serial numbers or Method 27 data, or a position description for gate security showing that the security guard will not allow any trucks on-site that do not have the appropriate documentation.

[67 FR 46288, July 12, 2002, as amended at 85 FR 40432, July 6, 2020]

§ 63.1106 Wastewater provisions.

(a) *Process wastewater*. Except as specified in paragraphs (a)(1) through (a)(16) and paragraph (d) of this section, the owner or operator of each affected source shall comply with the HON process wastewater requirements in §§ 63.132 through 63.148.

(1) When terms used in §§ 63.132 through 63.148 are defined in § 63.1101, the definition in § 63.1101 shall apply, for the purposes of this subpart. For terms used in §§ 63.132 through 63.148 that are not defined in § 63.1101, the definitions in §§ 63.101 and 63.111 shall apply.

(2) When the term chemical manufacturing production process unit, or CMPU, is used in §§ 63.132 through 63.148, the phrase ''a process unit whose primary product is a product produced by a source category subject to this subpart'' shall apply, for the purposes of this subpart.

(3) Owners and operators of affected sources are not required to comply with § 63.132(b)(1) and (d) and § 63.138(c). Further, owners and operators are exempt from all requirements in §§ 63.132 through 63.148 that pertain solely and exclusively to organic HAP listed in Table 8 of subpart G of this part.

(4) When the determination of equivalence criteria in § 63.102(b) is referred to in §§ 63.132, 63.133, and 63.137, the alternative nonopacity emission standard provisions in § 63.6(g) shall apply, for the purposes of this subpart.

(5) When the HON storage vessel requirements for internal floating roofs contained in § 63.119(b) are referred to in § 63.133(a)(2)(ii), the requirements in § 63.1063(a)(1)(i), (2), and (b) shall apply, for the purposes of this subpart.

(6) When the HON storage vessel requirements for external floating roofs in §§ 63.119(c) and 63.120(b)(5) and (6) are referred to in § 63.133(a)(2)(iii) and (d), the requirements in § 63.1063(a)(1)(ii), (2), and (b) shall apply, for the purposes of this subpart.

(7) For the purposes of this subpart, § 63.1063(c)(2)(iv) shall apply instead of § 63.133(e).

(8) When §§ 63.143(c), (d), (e)(3) and 63.146(a) require the submission of a request for approval to monitor alternative parameters according to the procedures specified in § 63.151(f) or (g), the owner or operator requesting to monitor alternative parameters shall follow the procedures specified in § 63.1108(c) or as specified in a referenced subpart.

(9) When § 63.147(d) requires the owner or operator to keep records of the daily average value of each continuously monitored parameter for each operating day as specified in § 63.152(f), the owner or operator shall keep records of each continuously monitored parameter for each operating day as specified in § 63.998(b).

(10) When § 63.132(a) and (b) refer to the ''applicable dates specified in § 63.100 of subpart F of this part,'' the applicable compliance dates specified in § 63.1102 shall apply, for purposes of this subpart.

(11) Where § 63.152(b) and/or the Notification of Compliance Status is referred to in §§ 63.132 through 63.148, the Notification of Compliance Status requirements contained in § 63.1110(a)(4) shall apply, for purposes of this subpart.

(12) Where § 63.152(c) and/or the Periodic Report requirements are referred to §§ 63.132 through 63.148, the Periodic Report requirements contained in § 63.1110(a)(5) shall apply, for purposes of this subpart.

(13) When Method 18 of Appendix A to part 60 of this chapter is specified in § 63.139(c)(1)(ii), § 63.145(d)(4), or § 63.145(i)(2), either Method 18 or Method 25A may be used. The use of Method 25A of appendix A to part 60 of this chapter shall comply with paragraphs (a)(13)(i) and (a)(13)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A of appendix A of part 60 of this chapter shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A of appendix A of part 60 of this chapter is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(14) When the HON recordkeeping requirements for by-pass lines in §63.118(a)(3) is referred to in §63.148(f), the requirements in §63.998(d)(1)(ii)(A) shall apply, for the purposes of this subpart.

(15) When the Initial Notification requirements in §63.182(b) are referred to in §63.148(j), the requirements in §63.1110(c) shall apply, for the purposes of this subpart.

(16) For the purposes of this subpart, §63.148(k) shall not apply.

(b) *Maintenance wastewater.* The owner or operator of each affected source shall comply with the HON maintenance wastewater requirements in §63.105. When terms used in §63.105 are defined in §63.1101, the definition in §63.1101 shall apply, for the purpose of this subpart. For terms used in §63.105 that are not defined in §63.1101, the definitions in §§63.101 and 63.111 shall apply.

(c) *Liquid streams in open systems.* The owner or operator shall comply with the provisions of Table 35 of subpart G of this part for each item of equipment meeting the criteria specified in paragraphs (c)(1) through (3) of this section and either paragraph (c)(4)(i) or (ii) of this section, with the exceptions provided in paragraphs (c)(5) and (6) of this section.

(1) The item of equipment is one of the types of equipment identified in paragraphs (c)(1)(i) through (vii) of this section.

(i) Drain or drain hub;

(ii) Manhole (including sumps and other points of access to a conveyance system);

(iii) Lift station;

(iv) Trench;

(v) Pipe;

(vi) Oil/water separator; and

(vii) Tanks with capacities of 38 m^3 or greater.

(2) The item of equipment is part of an affected source that is subject to this subpart.

(3) The item of equipment is controlled less stringently than in Table 35 of subpart G of this part, and the item of equipment is not otherwise exempt from the provisions of this subpart, or a referenced subpart.

(4) The item of equipment:

(i) Is a drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of Table 9 compounds (as defined under this subpart) at any flow rate; or a total annual average concentration greater than or equal to 1,000 parts per million by weight of Table 9 compounds (as defined under this subpart) at an annual average flow rate greater than or equal to 10 liters per minute.

(ii) Is a tank that receives one or more streams that contain water with a total annual average concentration greater than or equal to 1,000 parts per million by weight of Table 9 compounds (as defined under this subpart) at an annual average flow rate greater than or equal to 10 liters per minute. The owner or operator shall determine the characteristics of the stream as specified in paragraphs (c)(4)(ii)(A) and (B) of this section.

(A) The characteristics of the stream being received shall be determined at the inlet to the tank.

(B) The characteristics shall be determined according to the procedures in §63.144(b) and (c).

(5) When terms used in Table 35 of subpart G of this part are defined in §63.1101, the definition in §63.1101 shall apply, for the purpose of this subpart. For terms used in Table 35 of subpart G of this part that are not defined in §63.1101, the definitions in §63.101 and §63.111 shall apply.

(6) When Table 35 of subpart G of this part refers to 40 CFR 63.119(e)(1) or (e)(2) in the requirements for tanks, the owner or operator shall reduce emissions of total organic HAP by 95 weight-percent by venting emissions

through a closed vent system to any combination of control devices meeting the requirements in §63.982(a)(1), for the purposes of this subpart.

(d) The compliance date for the affected sources subject to the provisions of this section is specified in §63.1102.

[64 FR 63701, Nov. 22, 1999, as amended at 79 FR 60926, Oct. 8, 2014]

§ 63.1107 Equipment leaks.

(a) Each piece of equipment within a process unit that can reasonably be expected to contain equipment in organic HAP service is presumed to be in organic HAP service unless an owner or operator demonstrates that the piece of equipment is not in organic HAP service. For a piece of equipment to be considered not in organic HAP service, it must be determined that the percent organic HAP content can be reasonably expected not to exceed the percent by weight control applicability criteria specified in §63.1103 for an affected source on an annual average basis. For purposes of determining the percent organic HAP content of the process fluid that is contained in or contacts equipment, Method 18 of 40 CFR part 60, appendix A shall be used. For purposes of determining the percent organic HAP content of the process fluid that is contained in or contacts equipment for the ethylene production affected sources, the following methods shall be used for equipment: For equipment in gas and vapor service, as that term is defined in Subpart UU of this part, shall use Method 18 of 40 CFR part 60, appendix A; for equipment in liquid service, as that term is defined in Subpart UU of this part, shall use a combination of Method 18 of 40 CFR part 60, appendix A, SW–846–8260B (incorporated by reference, see §63.14); and SW–846–8270D (incorporated by reference, see §63.14), as appropriate.

(b) An owner or operator may use good engineering judgment rather than the procedures in paragraph (a) of this section to determine that the percent organic HAP content does not exceed the percent by weight control applicability criteria specified in §63.1103 for an affected source. When an owner or operator and the Administrator do not agree on whether a piece of equipment is not in organic HAP service, however, the procedures in paragraph (a) of this section shall be used to resolve the disagreement.

(c) If an owner or operator determines that a piece of equipment is in organic HAP service, the determination can be revised after following the procedures in paragraph (a) of this section, or by documenting that a change in the process or raw materials no longer causes the equipment to be in organic HAP service.

(d) Samples used in determining the percent organic HAP content shall be representative of the process fluid that is contained in or contacts the equipment.

(e) *Requirements for pressure relief devices.* For acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources, except as specified in paragraph (e)(4) of this section, the owner or operator must comply with the requirements specified in paragraphs (e)(1) and (2) of this section for pressure relief devices in organic HAP gas or vapor service. Except as specified in paragraph (e)(4) of this section, the owner or operator of an acrylic and modacrylic fiber production affected source or polycarbonate production affected source must also comply with the requirements specified in paragraph (e)(3) of this section for all pressure relief devices in organic HAP service.

(1) *Operating requirements.* Except during a pressure release event, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as described in Method 21 of 40 CFR part 60, Appendix A.

(2) *Pressure release requirements.* For pressure relief devices in organic HAP gas or vapor service, the owner or operator must comply with either paragraph (e)(2)(i) or (ii) of this section following a pressure release, as applicable.

(i) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as described in Method 21 of 40 CFR part 60, Appendix A, no later than 5 calendar days after the pressure relief device returns to organic HAP service

following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in § 63.171 or § 63.1024(d), as applicable.

(ii) If the pressure relief device consists of or includes a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release, except as provided in § 63.171 or § 63.1024(d), as applicable.

(3) *Pressure release management.* Except as specified in paragraph (e)(4) of this section, emissions of organic HAP to the atmosphere from pressure relief devices in organic HAP service are prohibited, and the owner or operator must comply with the requirements specified in paragraphs (e)(3)(i) and (ii) of this section for all pressure relief devices in organic HAP service.

(i) The owner or operator must equip each pressure relief device in organic HAP service with a device(s) or parameter monitoring system that is capable of:

(A) Identifying the pressure release;

(B) Recording the time and duration of each pressure release; and

(C) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(ii) If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, the owner or operator must calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in paragraph (g) of this section. Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(4) *Pressure relief devices routed to a control device, process, fuel gas system, or drain system.* If a pressure relief device in organic HAP service is designed and operated to route all HAP emissions from pressure releases through a closed vent system to a control device or to a process, fuel gas system, or drain system, the owner or operator is not required to comply with paragraphs (e)(1), (2), or (3) (if applicable) of this section for that pressure relief device. The fuel gas system or closed vent system and control device (if applicable) must meet the requirements of § 63.172 or § 63.1034, as applicable (except that the term ''pressure relief devices'' shall apply instead of the term ''equipment leaks'' in § 63.1034). The drain system (if applicable) must meet the requirements of § 63.136.

(f) *Recordkeeping requirements.* For acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources, for pressure relief devices in organic HAP service, keep records of the information specified in paragraphs (f)(1) through (5) of this section, as applicable.

(1) A list of identification numbers for pressure relief devices that vent to a fuel gas system, process, drain system, or closed-vent system and control device, under the provisions in paragraph (e)(4) of this section.

(2) A list of identification numbers for pressure relief devices subject to the provisions in paragraph (e)(1) of this section.

(3) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions in paragraph (e)(2)(ii) of this section.

(4) The dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in paragraphs (e)(1) and (2) of this section. The results shall include:

(i) The background level measured during each compliance test.

(ii) The maximum instrument reading measured at each piece of equipment during each compliance test.

(5) For pressure relief devices in organic HAP service subject to paragraph (e)(3) of this section, keep records of

each pressure release to the atmosphere, including the following information:

(i) The source, nature, and cause of the pressure release.

(ii) The date, time, and duration of the pressure release.

(iii) An estimate of the quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity.

(iv) The actions taken to prevent this pressure release.

(v) The measures adopted to prevent future such pressure releases.

(g) *Periodic reports.* For owners or operators of an acrylic and modacrylic fiber production affected source or polycarbonate production affected source subject to paragraph (e) of this section, Periodic Reports must include the information specified in paragraphs (g)(1) through (3) of this section for pressure relief devices in organic HAP service.

(1) For pressure relief devices in organic HAP service subject to paragraph (e) of this section, report confirmation that all monitoring to show compliance was conducted within the reporting period.

(2) For pressure relief devices in organic HAP gas or vapor service subject to paragraph (e)(2) of this section, report any instrument reading of 500 ppm above background or greater, more than 5 days after the relief device returns to organic HAP gas or vapor service after a pressure release.

(3) For pressure relief devices in organic HAP service subject to paragraph (e)(3) of this section, report each pressure release to the atmosphere, including the following information:

(i) The source, nature, and cause of the pressure release.

(ii) The date, time, and duration of the pressure release.

(iii) An estimate of the quantity of total HAP emitted during the pressure release and the method used for determining this quantity.

(iv) The actions taken to prevent this pressure release.

(v) The measures adopted to prevent future such pressure releases.

(h) *Ethylene production pressure release requirements.* Beginning no later than the compliance dates specified in §63.1102(c), except as specified in paragraph (h)(4) of this section, owners or operators of ethylene production affected sources must comply with the requirements specified in paragraphs (h)(1) and (2) of this section for pressure relief devices, such as relief valves or rupture disks, in organic HAP gas or vapor service instead of the pressure relief device requirements of §63.1030 of subpart UU or §63.165 of subpart H. Beginning no later than the compliance dates specified in §63.1102(c), except as specified in paragraphs (h)(4) and (5) of this section, the owner or operator must also comply with the requirements specified in paragraphs (h)(3) and (6) through (8) of this section for all pressure relief devices.

(1) *Operating requirements.* Except during a pressure release, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as measured by the method in §63.1023(b) of subpart UU or §63.180(b) and (c) of subpart H.

(2) *Pressure release requirements.* For pressure relief devices in organic HAP gas or vapor service, the owner or operator must comply with the applicable requirements in paragraphs (h)(2)(i) through (iii) of this section following a pressure release.

(i) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as specified in §63.1023(b) of subpart UU or §63.180(b) and (c) of subpart H, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(ii) If the pressure relief device includes a rupture disk, either comply with the requirements in paragraph (h)(2)(i) of this section (and do not replace the rupture disk) or install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release.

(iii) If the pressure relief device consists only of a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no

later than 5 calendar days after the pressure release. The owner or operator must not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced.

(3) *Pressure release management.* Except as specified in paragraphs (h)(4) and (5) of this section, the owner or operator must comply with the requirements specified in paragraphs (h)(3)(i) through (v) of this section for all pressure relief devices in organic HAP service.

(i) The owner or operator must equip each affected pressure relief device with a device(s) or use a monitoring system that is capable of:

(A) Identifying the pressure release;

(B) Recording the time and duration of each pressure release; and

(C) Notifying operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device itself or must be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(ii) The owner or operator must apply at least three redundant prevention measures to each affected pressure relief device and document these measures. Examples of prevention measures include:

(A) Flow, temperature, liquid level and pressure indicators with deadman switches, monitors, or automatic actuators. Independent, non-duplicative systems within this category count as separate redundant prevention measures.

(B) Documented routine inspection and maintenance programs and/or operator training (maintenance programs and operator training may count as only one redundant prevention measure).

(C) Inherently safer designs or safety instrumentation systems.

(D) Deluge systems.

(E) Staged relief system where the initial pressure relief device (with lower set release pressure) discharges to a flare or other closed vent system and control device.

(iii) If any affected pressure relief device releases to atmosphere as a result of a pressure release event, the owner or operator must perform root cause analysis and corrective action analysis according to the requirement in paragraph (h)(6) of this section and implement corrective actions according to the requirements in paragraph (h)(7) of this section. The owner or operator must also calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in § 63.1110(e)(8)(iii). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(iv) The owner or operator must determine the total number of release events that occurred during the calendar year for each affected pressure relief device separately. Prior to June 3, 2024, the owner or operator must also determine the total number of release events for each pressure relief device for which the root cause analysis concluded that the root cause was a force majeure event, as defined in § 63.1103(e)(2).

(v) Except for pressure relief devices described in paragraphs (h)(4) and (5) of this section, the following release events from an affected pressure relief device are a violation of the pressure release management work practice standards.

(A) Any release event for which the root cause of the event was determined to be operator error or poor maintenance.

(B) Prior to June 3, 2024, a second release event not including force majeure events from a single pressure relief device in a 3-calendar year period for the same root cause for the same equipment. On and after June 3, 2024, a second release event from a single pressure relief device in a 3-calendar year period for the same root cause for the same equipment.

(C) Prior to June 3, 2024, a third release event not including force majeure events from a single pressure relief device in a 3-calendar year period for any reason. On and after June 3, 2024, a

third release event from a single pressure relief device in a 3-calendar year period for any reason.

(4) *Pressure relief devices routed to a control device, process, fuel gas system, or drain system.* (i) If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, back into the process, a fuel gas system, or drain system, then the owner or operator is not required to comply with paragraph (h)(1), (2), or (3) of this section.

(ii) Before the compliance dates specified in § 63.1102(c), both the closed vent system and control device (if applicable) referenced in paragraph (h)(4)(i) of this section must meet the applicable requirements specified in § 63.982(b) and (c)(2). Beginning no later than the compliance dates specified in § 63.1102(c), both the closed vent system and control device (if applicable) referenced in paragraph (h)(4)(i) of this section must meet the applicable requirements specified in §§ 63.982(c)(2), 63.983, and 63.1103(e)(4). For purposes of compliance with this paragraph, the phrase ''Except for equipment needed for safety purposes such as pressure relief devices'' in § 63.983(a)(3) does not apply.

(iii) The drain system (if applicable) referenced in paragraph (h)(4)(i) of this section must meet the applicable requirements specified in § 61.346 or § 63.136.

(5) *Pressure relief devices exempted from pressure release management requirements.* The following types of pressure relief devices are not subject to the pressure release management requirements in paragraph (h)(3) of this section.

(i) Pressure relief devices in heavy liquid service, as defined in § 63.1020 of subpart UU.

(ii) Thermal expansion relief valves.

(iii) Pressure relief devices on mobile equipment.

(iv) Pilot-operated pressure relief devices where the primary release valve is routed through a closed vent system to a control device or back into the process, a fuel gas system, or drain system.

(v) Balanced bellows pressure relief devices where the primary release valve is routed through a closed vent system to a control device or back into the process, a fuel gas system, or drain system.

(6) *Root cause analysis and corrective action analysis.* A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a release event. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in paragraphs (h)(6)(i) through (iii) of this section.

(i) You may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices that are installed on the same equipment to release.

(ii) Prior to June 3, 2024, you may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices to release, regardless of the equipment served, if the root cause is reasonably expected to be a *force majeure* event, as defined in § 63.1103(e)(2).

(iii) Except as provided in paragraphs (h)(6)(i) and (ii) of this section, if more than one pressure relief device has a release during the same time period, an initial root cause analysis must be conducted separately for each pressure relief device that had a release. If the initial root cause analysis indicates that the release events have the same root cause(s), the initial separate root cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

(7) *Corrective action implementation.* Each owner or operator required to conduct a root cause analysis and corrective action analysis as specified in paragraphs (h)(3)(iii) and (6) of this section, must implement the corrective action(s) identified in the corrective action analysis in accordance with the applicable requirements in paragraphs (h)(7)(i) through (iii) of this section.

(i) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that no corrective action should be implemented, the owner or operator must record and explain the basis for that

conclusion no later than 45 days following the event.

(ii) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, the owner or operator must develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(iii) No later than 45 days following the event for which a root cause and corrective action analyses were required, the owner or operator must record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(8) *Flowing pilot-operated pressure relief devices.* For ethylene production affected sources that commenced construction or reconstruction on or before October 9, 2019, owners or operators are prohibited from installing a flowing pilot-operated pressure relief device or replacing any pressure relief device with a flowing pilot-operated pressure relief device after July 6, 2023. For ethylene production affected sources that commenced construction or reconstruction after October 9, 2019, owners or operators are prohibited from installing and operating flowing pilot-operated pressure relief devices. For purpose of compliance with this paragraph, a flowing pilot-operated pressure relief device means the type of pilot-operated pressure relief device where the pilot discharge vent continuously releases emissions to the atmosphere when the pressure relief device is actuated.

[64 FR 34921, June 29, 1999, as amended at 79 FR 60926, Oct. 8, 2014; 85 FR 40432, July 6, 2020; 89 FR 23865, Apr. 4, 2024]

§ 63.1108 Compliance with standards and operation and maintenance requirements.

(a) *Requirements.* The requirements of paragraphs (a)(1), (2), and (5) of this section apply to all affected sources except acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources, and beginning no later than the compliance dates specified in § 63.1102(c) for ethylene production affected sources, specified in § 63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in § 63.1102(e) for carbon black production affected sources. The requirements of paragraph (a)(4) of this section apply only to acrylic and modacrylic fiber production affected sources, polycarbonate production affected sources and beginning no later than the compliance dates specified in § 63.1102(c) for ethylene production affected sources, specified in § 63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in § 63.1102(e) for carbon black production affected sources. The requirements of paragraphs (a)(3), (6), and (7) of this section apply to all affected sources.

(1) Except as provided in paragraph (a)(2) of this section, the emission limitations and established parameter ranges of this part shall apply at all times except during periods of startup, shutdown, malfunction, or non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. However, if a startup, shutdown, malfunction or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of this subpart and any of the subparts that are referenced by this subpart during startup, shutdown, malfunction, or period of non-operation.

(2) If equipment leak requirements are referenced by this subpart for a subject source category, such requirements shall apply at all times except during periods of startup, shutdown, or malfunction, process unit shutdown (as defined in § 63.1101), or non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which the equipment leak requirements apply.

(3) For batch unit operations, shutdown does not include the normal periods between batch cycles; and startup does not include the recharging of

batch unit operations, or the transitional conditions due to changes in product.

(4) (i) For acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources, and beginning no later than the compliance dates specified in §63.1102(c) for ethylene production affected sources, specified in §63.1102(d) for cyanide chemicals manufacturing, and specified in §63.1102(e) for carbon black production affected sources, the emission limitations and established parameter ranges of this part shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. Equipment leak requirements shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which the equipment leak requirements apply.

(ii) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source.

(5) During startups, shutdowns, and malfunctions when the emission standards of this subpart and the subparts referenced by this subpart do not apply pursuant to paragraphs (a)(1) through (3) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions. The measures to be taken shall be identified in the startup, shutdown, and malfunction plan (if applicable), and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available. Compliance with an inadequate startup, shutdown, and malfunction plan developed pursuant to §63.1111 is not a shield for failing to comply with good operation and maintenance requirements.

(6) Malfunctions shall be corrected as soon as practical after their occurrence.

(7) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable, independent of emissions limitations or other requirements in relevant standards.

(b) *Compliance assessment procedures*—(1) *Parameter monitoring: compliance with operating conditions.* Compliance with the required operating conditions for the monitored control devices or recovery devices may be determined by, but is not limited to, the parameter monitoring data for emission points that are required to perform continuous monitoring. For each excursion, except as provided for in paragraphs (b)(1)(i) and (ii) of this section, the owner or operator shall be deemed to have failed to have applied the control in a manner that achieves the required operating conditions.

(i) An excursion that meets the requirements of paragraph (b)(2) of this section is not a violation.

(ii) Excused excursions are not allowed for acrylic and modacrylic fiber production affected sources, polycarbonate production affected sources, and beginning no later than the compliance dates specified in §63.1102(c) for ethylene production affected sources, specified in §63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in §63.1102(e) for carbon black production affected sources. For all other affected sources, including ethylene production, cyanide chemicals manufacturing, and

carbon black production affected sources, prior to the compliance dates specified in § 63.1102(c) through (e), an excused excursion, as described in § 63.998(b)(6)(ii), is not a violation.

(2) *Parameter monitoring: Excursions.* An excursion is not a violation in cases where continuous monitoring is required and the excursion does not count toward the number of excused excursions (as described in § 63.998(b)(6)(ii)), if the conditions of paragraph (b)(2)(i) or (ii) of this section are met, except that the conditions of paragraph (b)(2)(i) of this section do not apply for acrylic and modacrylic fiber production affected sources, polycarbonate production affected sources, and beginning no later than the compliance dates specified in § 63.1102(c) for ethylene production affected sources, specified in § 63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in § 63.1102(e) for carbon black production affected sources. Nothing in this paragraph shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this subpart or a subpart referenced by this subpart.

(i) During periods of startup, shutdown, or malfunction (and the source is operated during such periods in accordance with § 63.1111(a)), or

(ii) During periods of non-operation of the affected source or portion thereof (resulting in cessation of the emissions to which the monitoring applies).

(3) *Operation and maintenance procedures.* Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator. This information may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan under § 63.1111, if applicable), review of operation and maintenance records, and inspection of the affected source, and alternatives approved as specified in § 63.1113.

(4) *Applicability and compliance assessment procedures.* Applicability and compliance with standards shall be governed by, in part, but not limited to, the use of data, tests, and requirements according to paragraphs (b)(4)(i) through (iii) of this section. Compliance with design, equipment, work practice, and operating standards, including those for equipment leaks, shall be determined according to paragraph (b)(5) of this section.

(i) *Applicability assessments.* Unless otherwise specified in a relevant test method required to assess control applicability, each test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in this subpart. The arithmetic mean of the results of the three runs shall apply when assessing applicability. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run if it meets the criteria specified in paragraphs (b)(4)(i)(A) through (D) of this section.

(A) A sample is accidentally lost after the testing team leaves the site; or

(B) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(C) Extreme meteorological conditions occur;

(D) Other circumstances occur that are beyond the owner or operator's control.

(ii) *Performance test.* (A) The Administrator may determine compliance with emission limitations of this subpart based on, but not limited to, the results of performance tests conducted according to the procedures specified in § 63.997, unless otherwise specified in this subpart or a subpart referenced by this subpart. For carbon black production affected sources, beginning no later than the compliance dates specified in § 63.1102(e), in addition to initial performance test requirements to demonstrate compliance with process vent requirements, subsequent performance tests are required no later than 60 months after the preceding performance test in accordance with the procedures specified in § 63.997(e) for initial performance tests.

(B) For acrylic and modacrylic fiber production affected sources, polycarbonate production affected sources, and beginning no later than

the compliance dates specified in §63.1102(c) for ethylene production affected sources, specified in §63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in §63.1102(e) for carbon black production affected sources, 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. 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.

(iii) *Operation and maintenance requirements.* The Administrator may determine compliance with the operation and maintenance standards of this subpart by, but not limited to, evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in this subpart or a subpart referenced by this subpart.

(5) *Design, equipment, work practice, or operational standards.* The Administrator may determine compliance with design, equipment, work practice, or operational requirements by, but is not limited to, review of records, inspection of the affected source, and by evaluation of an owner or operator's conformance with operation and maintenance requirements as specified in this subpart, and in the subparts referenced by this subpart.

(c) *Finding of compliance.* The Administrator may make a finding concerning an affected source's compliance with an emission standard or operating and maintenance requirement as specified in, but not limited to, paragraphs (a) and (b) of this section, upon obtaining all of the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator to determine whether proper operation and maintenance practices are being used. Standards in this subpart and methods of determining compliance are in metric units followed by the equivalents in English units. The Administrator will make findings of compliance with the numerical standards of this subpart using metric units.

(d) *Compliance time.* All terms that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annually), unless specified otherwise in the section or subsection that imposes the requirement, refer to the standard calendar periods.

(1) Notwithstanding time periods specified for completion of required tasks, time periods may be changed by mutual agreement between the owner or operator and the Administrator, as specified in §63.1110(h). For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period.

(2) When the period specified for compliance is a standard calendar period, if the initial compliance date occurs after the beginning of the period, compliance shall be required according to the schedule specified in paragraph (d)(2) (i) or (ii) of this section, as appropriate.

(i) Compliance shall be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or

(ii) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.

(3) In all instances where a provision requires completion of a task during each of multiple successive periods, an owner or operator may perform the required task at any time during the specified period, provided the task is conducted at a reasonable interval after completion of the task during the previous period.

[64 FR 34921, June 29, 1999, as amended at 64 FR 63709, Nov. 22, 1999; 71 FR 20458, Apr. 20, 2006; 79 FR 60927, Oct. 8, 2014; 85 FR 40434, July 6, 2020; 86 FR 66127, Nov. 19, 2021]

§ 63.1109 Recordkeeping requirements.

(a) *Maintaining notifications, records, and reports.* Except as provided in paragraph (b) of this section, the owner or operator of each affected source subject to this subpart shall keep copies of notifications, reports and records required by this subpart and subparts referenced by this subpart for at least 5 years, unless otherwise specified under this subpart.

(b) *Copies of reports.* If the Administrator has waived the requirement of § 63.1110(g)(1) for submittal of copies of reports, the owner or operator is not required to maintain copies of the waived reports. This paragraph applies only to reports and not the underlying records that must be maintained as specified in this subpart and the subparts referenced by this subpart.

(c) *Availability of records.* All records required to be maintained by this subpart or a subpart referenced by this subpart shall be maintained in such a manner that they can be readily accessed and are suitable for inspection. The records of the remaining 3 years, where required, may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, computer disk, magnetic tape, or microfiche.

(d) *Control applicability records.* Owners or operators shall maintain records containing information developed and used to assess control applicability under § 63.1103 (e.g., combined total annual emissions of regulated organic HAP).

(e) *Ethylene production flare records.* For each flare subject to the requirements in § 63.1103(e)(4), owners or operators must keep records specified in paragraphs (e)(1) through (15) of this section in lieu of the information required in § 63.998(a)(1) of subpart SS.

(1) Retain records of the output of the monitoring device used to detect the presence of a pilot flame or flare flame as required in § 63.670(b) of subpart CC and the presence of a pilot flame as required in § 63.1103(e)(4)(vii)(D) for a minimum of 2 years. Retain records of each 15-minute block during which there was at least one minute that no pilot flame or flare flame is present when regulated material is routed to a flare for a minimum of 5 years. For each pressure-assisted multi-point flare that uses cross-lighting, retain records of each 15-minute block during which there was at least one minute that no pilot flame is present on each stage when regulated material is routed to a flare for a minimum of 5 years. You may reduce the collected minute-by-minute data to a 15-minute block basis with an indication of whether there was at least one minute where no pilot flame or flare flame was present.

(2) Retain records of daily visible emissions observations as specified in paragraphs (e)(2)(i) through (iv) of this section, as applicable, for a minimum of 3 years.

(i) To determine when visible emissions observations are required, the record must identify all periods when regulated material is vented to the flare.

(ii) If visible emissions observations are performed using Method 22 of 40 CFR part 60, appendix A–7, then the record must identify whether the visible emissions observation was performed, the results of each observation, total duration of observed visible emissions, and whether it was a 5-minute or 2-hour observation. Record the date and start time of each visible emissions observation.

(iii) If a video surveillance camera is used pursuant to § 63.670(h)(2) of subpart CC, then the record must include all video surveillance images recorded, with time and date stamps.

(iv) For each 2-hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours, then the record must include the date and start and end time of the 2-hour

period and an estimate of the cumulative number of minutes in the 2-hour period for which emissions were visible.

(3) The 15-minute block average cumulative flows for flare vent gas and, if applicable, total steam, perimeter assist air, and premix assist air specified to be monitored under § 63.670(i) of subpart CC, along with the date and time interval for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and premix assist air, then retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain records of the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, then retain records of the 15-minute block average temperature, pressure, and molecular weight of the flare vent gas or assist gas stream for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain records of the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

(4) The flare vent gas compositions specified to be monitored under § 63.670(j) of subpart CC. Retain records of individual component concentrations from each compositional analysis for a minimum of 2 years. If an NHVvg analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years.

(5) Each 15-minute block average operating parameter calculated following the methods specified in § 63.670(k) through (n) of subpart CC, as applicable.

(6) All periods during which operating values are outside of the applicable operating limits specified in § 63.670(d) through (f) of subpart CC and § 63.1103(e)(4)(vii) when regulated material is being routed to the flare.

(7) All periods during which the owner or operator does not perform flare monitoring according to the procedures in § 63.670(g) through (j) of subpart CC.

(8) For pressure-assisted multi-point flares, if a stage of burners on the flare uses cross-lighting, then a record of any changes made to the distance between burners.

(9) For pressure-assisted multi-point flares, all periods when the pressure monitor(s) on the main flare header show burners are operating outside the range of the manufacturer's specifications. Indicate the date and time for each period, the pressure measurement, the stage(s) and number of burners affected, and the range of manufacturer's specifications.

(10) For pressure-assisted multi-point flares, all periods when the staging valve position indicator monitoring system indicates a stage of the pressure-assisted multi-point flare should not be in operation and when a stage of the pressure-assisted multi-point flare should be in operation and is not. Indicate the date and time for each period, whether the stage was supposed to be open, but was closed or vice versa, and the stage(s) and number of burners affected.

(11) Records of periods when there is flow of vent gas to the flare, but when there is no flow of regulated material to the flare, including the start and stop time and dates of periods of no regulated material flow.

(12) Records when the flow of vent gas exceeds the smokeless capacity of the flare, including start and stop time and dates of the flaring event.

(13) Records of the root cause analysis and corrective action analysis conducted as required in § 63.670(o)(3) of subpart CC and § 63.1103(e)(4)(iv), including an identification of the affected flare, the date and duration of the event, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under § 63.670(o)(5)(i) of subpart CC.

(14) For any corrective action analysis for which implementation of corrective actions are required in § 63.670(o)(5) of subpart CC, a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s)

not already completed, a schedule for implementation, including proposed commencement and completion dates.

(15) Records described in § 63.10(b)(2)(vi).

(f) *Ethylene production maintenance vent records.* For each maintenance vent opening subject to the requirements in § 63.1103(e)(5), the owner or operator must keep the applicable records specified in (f)(1) through (5) of this section.

(1) The owner or operator must maintain standard site procedures used to deinventory equipment for safety purposes (*e.g.*, hot work or vessel entry procedures) to document the procedures used to meet the requirements in § 63.1103(e)(5). The current copy of the procedures must be retained and available on-site at all times. Previous versions of the standard site procedures, as applicable, must be retained for 5 years.

(2) If complying with the requirements of § 63.1103(e)(5)(i)(A) and the concentration of the vapor at the time of the vessel opening exceeds 10 percent of its LEL, records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and the concentration of the vapor at the time of the vessel opening.

(3) If complying with the requirements of § 63.1103(e)(5)(i)(B) and either the vessel pressure at the time of the vessel opening exceeds 5 psig or the concentration of the vapor at the time of the active purging was initiated exceeds 10 percent of its LEL, records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, the pressure of the vessel or equipment at the time of discharge to the atmosphere and, if applicable, the concentration of the vapors in the equipment when active purging was initiated.

(4) If complying with the requirements of § 63.1103(e)(5)(i)(C), records of the estimating procedures used to determine the total quantity of VOC in equipment and the type and size limits of equipment that contain less than 50 pounds of VOC at the time of maintenance vent opening. For each maintenance vent opening of equipment that contains greater than 50 pounds of VOC for which the deinventory procedures specified in paragraph (f)(1) of this section are not followed or for which the equipment opened exceeds the type and size limits established in the records specified in this paragraph, records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere.

(5) If complying with the requirements of § 63.1103(e)(5)(i)(D), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, records documenting actions taken to comply with other applicable alternatives and why utilization of this alternative was required, the date of maintenance vent opening, the equipment pressure and concentration of the vapors in the equipment at the time of discharge, an indication of whether active purging was performed and the pressure of the equipment during the installation or removal of the blind if active purging was used, the duration the maintenance vent was open during the blind installation or removal process, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere for each applicable maintenance vent opening.

(g) *Ethylene production bypass line records.* For each flow event from a bypass line subject to the requirements in § 63.1103(e)(6), the owner or operator must maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the requirements specified in Table 7 to § 63.1103(e), the owner or operator must include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates.

(h) *Decoking operation of ethylene cracking furnace records.* For each decoking operation of an ethylene cracking furnace subject to the standards in §63.1103(e)(7) and (8), the owner or operator must keep the records specified in paragraphs (h)(1) through (6) of this section.

(1) Records that document the day and time each inspection specified in §63.1103(e)(7)(i) took place, the results of each inspection, and any repairs made to correct the flame impingement; and for any repair that is delayed beyond 1 calendar day, the records specified in paragraphs (h)(1)(i) through (iii) of this section.

(i) The reason for the delay.

(ii) An estimate of the emissions from shutdown for repair and an estimate of the emissions likely to result from delay of repair, and whether the requirements at §63.1103(e)(7)(i)(A) or (B) were met.

(iii) The date the repair was completed or, if the repair has not been completed, a schedule for completing the repair.

(2) If the owner or operator chooses to monitor the CO_2 concentration during decoking as specified in §63.1103(e)(7)(ii), then for each decoking cycle, records must be kept for all measured CO_2 concentration values beginning before the expected end of the air-in decoke time, the criterion used to begin the CO_2 monitoring, and the target used to indicate combustion is complete. The target record should identify any time period the site routinely extends air addition beyond the specified CO_2 concentration and any decoke completion assurance procedures used to confirm all coke has been removed prior to stopping air addition that occurs after the CO_2 target is reached.

(3) If the owner or operator chooses to monitor the temperature at the radiant tube(s) outlet during decoking as specified in §63.1103(e)(7)(iii), then for each decoking cycle, records must be kept for all measured temperature values and the target used to indicate a reduction in temperature of the inside of the radiant tube(s) is necessary.

(4) If the owner or operator chooses to comply with §63.1103(e)(7)(iv), then records must be kept that document that decoke air is no longer being added after each decoking cycle.

(5) If the owner or operator chooses to treat steam or feed to reduce coke formation as specified in §63.1103(e)(7)(v), then records must be kept that document that the planned treatment occurred.

(6) For each decoking operation of an ethylene cracking furnace subject to the requirements in §63.1103(e)(8), the owner or operator must keep records that document the day each inspection took place and the results of each inspection where an isolation problem was identified including any repairs made to correct the problem.

(i) *Ethylene production pressure relief devices records.* For each pressure relief device subject to the pressure release management work practice standards in §63.1107(h)(3), the owner or operator must keep the records specified in paragraphs (i)(1) through (3) of this section.

(1) Records of the prevention measures implemented as required in §63.1107(h)(3)(ii).

(2) Records of the number of releases during each calendar year and, prior to June 3, 2024, the number of those releases for which the root cause was determined to be a force majeure event. Keep these records for the current calendar year and the past five calendar years.

(3) For each release to the atmosphere, the owner or operator must keep the records specified in paragraphs (i)(3)(i) through (iv) of this section.

(i) The start and end time and date of each pressure release to the atmosphere.

(ii) Records of any data, assumptions, and calculations used to estimate of the mass quantity of each organic HAP released during the event.

(iii) Records of the root cause analysis and corrective action analysis conducted as required in §63.1107(h)(3)(iii), including an identification of the affected pressure relief device, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under §63.1107(h)(7)(i).

(iv) For any corrective action analysis for which implementation of corrective actions are required in § 63.1107(h)(7), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

[64 FR 34921, June 29, 1999, as amended at 67 FR 39307, June 7, 2002; 85 FR 40435, July 6, 2020; 89 FR 23865, Apr. 4, 2024]

§ 63.1110 Reporting requirements.

(a) *Required reports.* Each owner or operator of an affected source subject to this subpart shall submit the reports listed in paragraphs (a)(1) through (8) of this section, as applicable. Each owner or operator of an acrylic and modacrylic fiber production affected source or polycarbonate production affected source subject to this subpart shall also submit the reports listed in paragraph (a)(9) of this section in addition to the reports listed in paragraphs (a)(1) through (8) of this section, as applicable. Beginning no later than the compliance dates specified in § 63.1102(c) for ethylene production affected sources, specified in § 63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in § 63.1102(e) for carbon black production affected sources, each owner or operator of an ethylene production affected source, cyanide chemicals manufacturing affected source, and carbon black production affected source subject to this subpart shall also submit the reports listed in paragraph (a)(10) of this section in addition to the reports listed in paragraphs (a)(1) through (8) of this section, as applicable.

(1) A Notification of Initial Startup described in paragraph (b) of this section, as applicable.

(2) An Initial Notification described in paragraph (c) of this section.

(3) [Reserved]

(4) A Notification of Compliance Status report described in paragraph (d) of this section.

(5) Periodic Reports described in paragraph (e) of this section.

(6) Application for approval of construction or reconstruction described in § 63.5(d) of subpart A of this part.

(7) Startup, Shutdown, and Malfunction Reports described in § 63.1111 (except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources).

(8) *Other reports.* Other reports shall be submitted as specified elsewhere in this subpart and subparts referenced by this subpart.

(9) Within 60 days after the date of completing each performance test (as defined in § 63.2), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart according to the methods specified in paragraph (a)(9)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA-provided software, the owner or operator shall submit the results of the performance test to the EPA by direct computer-to-computer electronic transfer via EPA-provided software, unless otherwise approved by the Administrator. Owners or operators, who claim that some of the information being submitted for performance tests is confidential business information (CBI), must submit a complete file using EPA-provided software that includes information claimed to be CBI on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA by direct computer-to-computer electronic transfer via EPA-provided software.

(ii) For any performance test conducted using test methods that are not compatible with the EPA-provided software, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in § 60.4.

(10)(i) Beginning no later than the compliance dates specified in §63.1102(c) for ethylene production affected sources, specified in §63.1102(d) for cyanide chemicals manufacturing affected sources, and specified in §63.1102(e) for carbon black production affected sources, within 60 days after the date of completing each performance test required by this subpart or applicability assessment required by §63.1103(f)(3)(iv), the owner or operator must submit the results of the performance test or applicability assessment following the procedures specified in §63.9(k). Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or alternate electronic file.

(ii) Beginning no later than the compliance dates specified in §63.1102(c) through (e), the owner or operator must submit all subsequent Notification of Compliance Status reports required under paragraph (a)(4) of this section in portable document format (PDF) format to the EPA following the procedure specified in §63.9(k). All subsequent Periodic Reports required under paragraph (a)(5) of this section must be submitted to the EPA via CEDRI using the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for this subpart and following the procedure specified in §63.9(k) beginning no later than the compliance dates specified in §63.1102(c) through (e) or once the report template has been available on the CEDRI website for 1 year, whichever date is later. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports under §§63.9(i) and 63.10(a) of subpart A, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. Any medium submitted through mail under §63.9(k) for a Notification of Compliance Status report or Periodic Report must be sent to the attention of the Ethylene Production Sector Lead, Cyanide Chemicals Manufacturing Sector Lead, or Carbon Black Production Sector Lead, as appropriate.

(iii) Beginning no later than the compliance date specified in §63.1102(c) or once the report template for this subpart has been available on the CEDRI website for six months, whichever date is later, the items in §63.1110(e)(4)(iv) and §63.1110(e)(8)(iii) must be submitted to the EPA via CEDRI as specified in §63.9(k) using the appropriate electronic report template on the CEDRI website for reporting that information. The report submitted to CEDRI must also contain company identifier information (including the company name and address) and the beginning and ending dates of the time period covered by the report. Once you begin submitting Periodic Reports to CEDRI in accordance with paragraph (a)(10)(ii) of this section, the items in §63.1110(e)(4)(iv) and §63.1110(e)(8)(iii) must be included in those Periodic Reports instead of submitting the information using the separate template.

(b) *Notification of initial startup*—(1) *Contents.* An owner or operator of an affected source for which a notice of initial startup has not been submitted under §63.5, shall send the Administrator written notification of the actual date of initial startup of an affected source. This paragraph does not apply to an affected source in existence on the effective date of this rule.

(2) *Due date.* The notification of the actual date of initial startup shall be postmarked within 15 days after such date.

(c) *Initial Notification.* Owners or operators of affected sources who are subject to this subpart shall notify the Administrator of the applicability of this

subpart by submitting an Initial Notification according to the schedule described in paragraph (c)(1) of this section. The notice shall include the information specified in paragraphs (c)(2) through (7) of this section, as applicable. An application for approval of construction or reconstruction required under §63.5(d) of subpart A of this part may be used to fulfill the initial notification requirements.

(1) The initial notification shall be postmarked within 1 year after the source becomes subject to this subpart.

(2) Identification of the storage vessels subject to this subpart.

(3) Identification of the process vents subject to this subpart.

(4) Identification of the transfer racks subject to this subpart.

(5) For equipment leaks, identification of the process units subject to this subpart.

(6) Identification of other equipment or emission points subject to this subpart.

(7) As an alternative to the requirements specified in paragraphs (c)(1) through (3) and (c)(5) of this section, process units can be identified instead of individual pieces of equipment. For this alternative, the kind of emission point in the process unit that will comply must also be identified.

(d) *Notification of Compliance Status*—(1) *Contents.* The owner or operator shall submit a Notification of Compliance Status for each affected source subject to this subpart containing the information specified in paragraphs (d)(1)(i) and (ii) of this section. For pressure relief devices subject to the requirements of §63.1107(e)(3), the owner or operator of an acrylic and modacrylic fiber production affected source or polycarbonate production affected source shall also submit the information listed in paragraph (d)(1)(iii) of this section in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring. For flares subject to the requirements of §63.1103(e)(4), the owner or operator of an ethylene production affected source shall also submit the information listed in paragraph (d)(1)(iv) of this section in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for flare monitoring. For pressure relief devices subject to the pressure release management work practice standards in §63.1107(h)(3), the owner or operator of an ethylene production affected source shall also submit the information listed in paragraph (d)(1)(v) of this section in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring.

(i) Except as specified in paragraphs (d)(1)(iv) and (v) of this section, the Notification of Compliance Status shall include the information specified in this subpart and the subparts referenced by this subpart. Alternatively, this information can be submitted as part of a title V permit application or amendment.

(ii) The Notification of Compliance Status shall include a statement from the owner or operator identifying which subpart he or she has elected to comply with, where given a choice, as provided for in §63.1100(g).

(iii) For pressure relief devices in organic HAP service, a description of the device or monitoring system to be implemented, including the pressure relief devices and process parameters to be monitored (if applicable), and a description of the alarms or other methods by which operators will be notified of a pressure release.

(iv) For each flare subject to the requirements in §63.1103(e)(4), in lieu of the information required in §63.987(b) of subpart SS, the Notification of Compliance Status shall include flare design (*e.g.*, steam-assisted, air-assisted, non-assisted, or pressure-assisted multi-point); all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the initial visible emissions demonstration required by §63.670(h) of subpart CC, as applicable; and all periods during the compliance determination when the pilot flame or flare flame is absent.

(v) For pressure relief devices subject to the requirements of §63.1107(h), the Notification of Compliance Status shall include the information specified

in paragraphs (d)(1)(v)(A) and (B) of this section.

(A) A description of the monitoring system to be implemented, including the relief devices and process parameters to be monitored, and a description of the alarms or other methods by which operators will be notified of a pressure release.

(B) A description of the prevention measures to be implemented for each affected pressure relief device.

(2) *Due date.* The owner or operator shall submit the Notification of Compliance Status for each affected source 240 days after the compliance date specified for the affected source under this subpart, or 60 days after completion of the initial performance test or initial compliance assessment/subsequent required performance test or subsequent compliance assessment, whichever is earlier. Notification of Compliance Status reports may be combined for multiple affected sources as long as the due date requirements for all sources covered in the combined report are met.

(e) *Periodic reports.* The owner or operator of an affected source subject to monitoring requirements of this subpart, or to other requirements of this subpart or subparts referenced by this subpart, where periodic reporting is specified, shall submit a Periodic Report.

(1) *Contents.* Except as specified in paragraphs (e)(4) through (8) of this section, Periodic Reports shall include all information specified in this subpart and subparts referenced by this subpart.

(2) *Due date.* The Periodic Report shall be submitted no later than 60 days after the end of each 6-month period. The first report shall cover the 6-month period after the Notification of Compliance Status report is due. The first report shall be submitted no later than the last day of the month that includes the date 8 months (6 months and 60 days) after the Notification of Compliance Status report is due.

(3) *Overlap with title V reports.* Information required by this subpart, which is submitted with a title V periodic report, need not also be included in a subsequent Periodic Report required by this subpart or subpart referenced by this subpart. The title V report shall be referenced in the Periodic Report required by this subpart.

(4) *Ethylene production flare reports.* For each flare subject to the requirements in § 63.1103(e)(4), the Periodic Report shall include the items specified in paragraphs (e)(4)(i) through (vi) of this section in lieu of the information required in § 63.999(c)(3) of subpart SS.

(i) Records as specified in § 63.1109(e)(1) for each 15-minute block during which there was at least one minute when regulated material is routed to a flare and no pilot flame or flare flame is present. Include the start and stop time and date of each 15-minute block.

(ii) Visible emission records as specified in § 63.1109(e)(2)(iv) for each period of 2 consecutive hours during which visible emissions exceeded a total of 5 minutes.

(iii) The periods specified in § 63.1109(e)(6). Indicate the date and start time for the period, and the net heating value operating parameter(s) determined following the methods in § 63.670(k) through (n) of subpart CC as applicable.

(iv) For flaring events meeting the criteria in § 63.670(o)(3) of subpart CC and § 63.1103(e)(4)(iv):

(A) Flare identification name or number and the start and stop time and date of the flaring event.

(B) The length of time (in minutes) that emissions were visible from the flare during the event.

(C) Results of the root cause and corrective actions analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

(v) For pressure-assisted multi-point flares, the periods of time when the pressure monitor(s) on the main flare header show the burners operating outside the range of the manufacturer's specifications.

(vi) For pressure-assisted multi-point flares, the periods of time when the staging valve position indicator monitoring system indicates a stage should

not be in operation and is or when a stage should be in operation and is not.

(5) *Ethylene production maintenance vent reports.* For maintenance vents subject to the requirements § 63.1103(e)(5), Periodic Reports must include the information specified in paragraphs (e)(5)(i) through (iv) of this section for any release exceeding the applicable limits in § 63.1103(e)(5)(i). For the purposes of this reporting requirement, owners or operators complying with § 63.1103(e)(5)(i)(D) must report each venting event conducted under those provisions and include an explanation for each event as to why utilization of this alternative was required.

(i) Identification of the maintenance vent and the equipment served by the maintenance vent.

(ii) The date and time the maintenance vent was opened to the atmosphere.

(iii) The LEL, vessel pressure, or mass of VOC in the equipment, as applicable, at the start of atmospheric venting. If the 5 psig vessel pressure option in § 63.1103(e)(5)(i)(B) was used and active purging was initiated while the concentration of the vapor was 10 percent or greater of its LEL, also include the concentration of the vapors at the time active purging was initiated.

(iv) An estimate of the mass of organic HAP released during the entire atmospheric venting event.

(6) *Bypass line reports.* For bypass lines subject to the requirements in § 63.1103(e)(6), Periodic Reports must include the date, time, duration, estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting mass emissions of organic HAP that bypass a control device. For periods when the flow indicator is not operating, report the date, time, and duration.

(7) *Decoking operation reports.* For decoking operations of an ethylene cracking furnace subject to the requirements in § 63.1103(e)(7) and (8), Periodic Reports must include the information specified in paragraphs (e)(7)(i) through (iii) of this section.

(i) For each control measure selected to minimize coke combustion emissions as specified in § 63.1103(e)(7)(ii) through (v), report instances where the control measures were not followed.

(ii) Report instances where an isolation valve inspection was not conducted according to the procedures specified in § 63.1103(e)(8).

(iii) For instances where repair was delayed beyond 1 calendar day as specified in § 63.1103(e)(7)(i), report the information specified in § 63.1109(h)(1).

(8) *Ethylene production pressure relief devices reports.* For pressure relief devices subject to the requirements of § 63.1107(h), Periodic Reports must include the information specified in paragraphs (e)(8)(i) through (iii) of this section.

(i) For pressure relief devices in organic HAP gas or vapor service, pursuant to § 63.1107(h)(1), report any instrument reading of 500 ppm or greater.

(ii) For pressure relief devices in organic HAP gas or vapor service subject to § 63.1107(h)(2), report confirmation that any monitoring required to be done during the reporting period to show compliance was conducted.

(iii) For pressure relief devices in organic HAP service subject to § 63.1107(h)(3), report each pressure release to the atmosphere, including pressure relief device identification name or number; start date and start time and duration (in hours) of the pressure release; an estimate (in pounds) of the mass quantity of each organic HAP released; the results of any root cause analysis and corrective action analysis completed during the reporting period, including the corrective actions implemented during the reporting period; and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

(f) *General report content.* All reports and notifications submitted pursuant to this subpart, including reports that combine information required under this subpart and a subpart referenced by this subpart, shall include the information specified in paragraphs (f)(1) through (4) of this section.

(1) The name, address and telephone number (fax number may also be provided) of the owner or operator.

(2) The name, address and telephone number of the person to whom inquiries should be addressed, if different than the owner or operator.

(3) The address (physical location) of the reporting facility.

(4) Identification of each affected source covered in the submission and identification of the subparts (this subpart and the subparts referenced in this subpart) that are applicable to that affected source. Summaries and groupings of this information are permitted.

(g) *Report and notification submission*—(1) *Submission to the Environmental Protection Agency*. All reports and notifications required under this subpart shall be sent to the appropriate EPA Regional Office and to the delegated State authority, except that request for permission to use an alternative means of emission limitation as provided for in §63.1113 shall be submitted to the Director of the EPA Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, MD–10, Research Triangle Park, North Carolina, 27711. The EPA Regional Office may waive the requirement to submit a copy of any reports or notifications at its discretion, except that electronic reporting to CEDRI cannot be waived, and as such, compliance with the provisions of this paragraph does not relieve owners or operators of affected facilities of the requirement to submit electronic reports required in this subpart to the EPA.

(2) *Submission of copies.* If any State requires a notice that contains all the information required in a report or notification listed in this subpart, an owner or operator may send the appropriate EPA Regional Office a copy of the report or notification sent to the State to satisfy the requirements of this subpart for that report or notification, except that performance test reports and performance evaluation reports required under paragraph (a)(10) of this section must be submitted to CEDRI in the format specified in that paragraph.

(3) *Method of submission.* Wherever this subpart specifies ''postmark'' dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent on or before the specified date.

(4) *Submission by electronic media.* If acceptable to both the Administrator and the owner or operator of an affected source, reports may be submitted on electronic media.

(h) *Adjustment to timing of submittals and review of required communications*—(1) *Alignment with title V submission.* An owner or operator may submit Periodic Reports required by this subpart on the same schedule as the title V periodic report for the facility. The owner or operator using this option need not obtain prior approval, but must ensure that no reporting gaps occur. The owner or operator shall clearly identify the change in reporting schedule in the first report filed under this paragraph. The requirements of paragraph (f) of this section are not waived when implementing this change.

(2) *Establishment of a common schedule.* An owner or operator may arrange by mutual agreement (which may be a standing agreement) with the Administrator a common schedule on which periodic reports required by this subpart shall be submitted throughout the year as long as the reporting period is not extended. Procedures governing the implementation of this provision are specified in paragraphs (h)(3) through (7) of this section.

(3) *Submission requirements.* Except as allowed by paragraph (h)(1) of this section, until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (h)(5) and (6) of this section, the owner or operator of an affected source remains strictly subject to the required submittal deadlines specified in this subpart and subparts referenced by this subpart.

(4) *Request for adjustment of reporting schedule.* Except as allowed by paragraph (h)(1) of this section, an owner or operator shall request the adjustment provided for in paragraphs (h)(5) and (6) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this subpart or subparts referenced by this subpart. A request for a change to the periodic reporting schedule need only be made once for every schedule

change and not once for every semiannual report submitted.

(5) *Alteration of time periods or deadlines.* Notwithstanding time periods or postmark deadlines specified in this subpart for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practical before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(6) *Approval of request for adjustment.* If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(7) *Notification of delay.* If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[64 FR 34921, June 29, 1999, as amended at 64 FR 63709, Nov. 22, 1999; 79 FR 60928, Oct. 8, 2014; 85 FR 40437, July 6, 2020; 86 FR 66127, Nov. 19, 2021; 89 FR 23865, Apr. 4, 2024]

§ 63.1111 Startup, shutdown, and malfunction.

(a) *Startup, shutdown, and malfunction plan.* Before May 18, 2022, the requirements of this paragraph (a) apply to all affected sources except for acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources. On and after May 18, 2022, the requirements of this paragraph (a) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, and polycarbonate production affected sources. On and after July 6, 2023, the requirements of this paragraph (a) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources.

(1) *Description and purpose of plan.* The owner or operator of an affected source shall develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction. This plan shall also include a program of corrective action for malfunctioning process and air pollution control equipment used to comply with relevant standards under this subpart. The plan shall also address routine or otherwise predictable CPMS malfunctions. This plan shall be developed by the owner or operator by the affected source's compliance date under this subpart. The requirement to develop this plan shall be incorporated into the source's title V permit. This requirement is optional for equipment that must comply with subparts TT or UU under this subpart. It is not optional for equipment equipped with a closed vent system and control device subject to this subpart and subpart SS of this part. The purpose of the startup, shutdown, and malfunction plan is described in paragraphs (a)(1)(i) and (ii) of this section.

(i) To ensure that owners or operators are prepared to correct malfunctions as soon as practical after their occurrence, in order to minimize excess emissions of regulated organic HAP; and

(ii) To reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(2) Operation of source. During periods of startup, shutdown, and malfunction, the owner or operator of an affected source subject to this subpart YY shall operate and maintain such affected source (including associated air pollution control equipment and CPMS) in a manner consistent with safety and good air pollution control practices for minimizing emissions to the extent practical. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required by this section), review of operation and maintenance records, and inspection of the source.

(3) *Use of additional procedures.* To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator of an affected source may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(4) *Revisions to the plan.* Based on the results of a determination made under § 63.1108(b)(3), the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan if the Administrator finds that the plan is inadequate as specified in paragraphs (a)(4)(i) through (iv) of this section:

(i) Does not address a startup, shutdown, and malfunction event of the CPMS, the air pollution control equipment, or the affected source that has occurred; or

(ii) Fails to provide for the operation of the affected source (including associated air pollution control equipment and CPMS) during a startup, shutdown, and malfunction event in a manner consistent with good air pollution control practices for minimizing emissions to the extent practical; or

(iii) Does not provide adequate procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable; or

(iv) Does not provide adequate measures to prevent or minimize excess emissions to the extent practical as specified in § 63.1108(a)(5).

(5) *Additional malfunction plan requirements.* If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the affected source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS.

(b) *Startup, shutdown, and malfunction reporting requirements.* Before May 18, 2022, the requirements of this paragraph (b) apply to all affected sources except for acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources. On and after May 18, 2022, the requirements of this paragraph (b) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, and polycarbonate production affected sources. On and after July 6, 2023, the requirements of this paragraph (b) apply to all affected sources

except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources.

(1) *Periodic startup, shutdown, and malfunction reporting requirements.* If actions taken by an owner or operator during a startup, shutdown, and malfunction of an affected source, or of a control device or monitoring system required for compliance (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's plan, then the owner or operator shall state such information in a startup, shutdown, and malfunction report. During the reporting period, reports shall only be required for startups, shutdowns, and malfunctions during which excess emissions, as defined in §63.1108(a)(5), occur during the reporting period. A startup, shutdown, and malfunction report can be submitted as part of a Periodic Report required under §63.1110(a)(5), or on a more frequent basis if specified otherwise under this subpart or a subpart referenced by this subpart or as established otherwise by the permitting authority in the affected source's title V permit. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the Periodic Report. The report shall include the information specified in paragraphs (b)(1)(i) through (b)(1)(iv) of this section.

(i) The name, title, and signature of the owner or operator or other responsible official certifying its accuracy.

(ii) The number of startup, shutdown, and malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period if the total duration amounts to either of the durations in paragraphs (b)(1)(ii)(A) or (B) of this section. Records of the number of CPMS startup, shutdown, and malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period are required under §63.998(c)(1)(ii)(C) and (D) of this section.

(A) Total duration of periods of malfunctioning of a CPMS equal to or greater than 5 percent of that CPMS operating time for the reporting period; or

(B) Total duration of periods of startup, shutdown, and malfunction for an affected source equal to or greater than 1 percent of that affected source's operating time for the reporting period.

(iii) Records documenting each startup, shutdown and malfunction event as required under §63.998(c)(1)(ii)(F).

(iv) Records documenting the total duration of operating time as required under §63.998(c)(1)(ii)(H).

(2) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for startup, shutdown, and malfunction reports under paragraph (b)(1) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) during which excess emissions occur is not consistent with the procedures specified in the affected source's plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, followed by a letter delivered or postmarked within 7 working days after the end of the event. The immediate report required under this paragraph shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in §63.1110(h).

(c) *Malfunction recordkeeping and reporting.* Before May 18, 2022, the requirements of this paragraph (c) apply only to acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources. On and after May 18, 2022, the requirements of this paragraph (c) apply only to acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, and polycarbonate production affected sources. On and after July 6, 2023, the requirements of this paragraph (c) apply only to acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources.

(1) *Records of malfunctions.* The owner or operator shall keep the records specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(ii) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(iii) Record actions taken to minimize emissions in accordance with § 63.1108(a)(4)(ii), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(2) *Reports of malfunctions.* If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

[64 FR 34921, June 29, 1999, as amended at 71 FR 20458, Apr. 20, 2006; 79 FR 60929, Oct. 8, 2014; 85 FR 40440, July 6, 2020; 86 FR 66129, Nov. 19, 2021]

§ 63.1112 Extension of compliance, and performance test, monitoring, recordkeeping and reporting waivers and alternatives.

(a) *Extension of compliance*—(1) *Extension of compliance with emission standards.* Until an extension of compliance has been granted by the Administrator under this paragraph, the owner or operator of an affected source subject to the requirements of this subpart shall comply with all applicable requirements of this subpart.

(2) *Extension of compliance for early reductions and other reductions.* (i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D of this part.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (a)(4) through (7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance

under paragraph (a)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) *Requests for extensions of compliance for section 112 standards.* (i) *Section 112(d) standards.* (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the appropriate authority not later than 12 months before the affected source's compliance date (as specified in § 63.1102) for sources that are not including emission points in an emissions average, or not later than 18 months before the affected source's compliance date (as specified in § 63.1102) for sources that are including emission points in an emissions average. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards, e.g., a compliance date specified by the standard is less than 12 (or 18) months after the standard's effective date.

(ii) *Section 112(f) standards.* The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 15 days after the effective date of the relevant standard.

(5) *Requests for extensions of compliance for BACT or LAER.* The owner or operator of an existing source who has installed BACT or technology required to meet LAER (as specified in paragraph (a)(2)(ii) of this section) prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) *Contents of request.* (i) The request for a compliance extension under paragraph (a)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(*1*) The date by which contracts for emission control systems or process changes for emission control will be awarded, or the date by which orders

will be issued for the purchase of component parts to accomplish emission control or process changes;

(*2*) The date by which on-site construction, installation of emission control equipment, or a process change is to be initiated;

(*3*) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(*4*) The date by which final compliance is to be achieved.

(C) A description of interim emission control steps, that will be taken during the extension period, including milestones to assure proper operation and maintenance of emission control and process equipment; and

(D) Whether the owner or operator is also requesting an extension of other applicable requirements (e.g., performance testing requirements).

(ii) The request for a compliance extension under paragraph (a)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) *Additional advice.* Advice on requesting an extension of compliance may be obtained from the Administrator.

(8) *Approval of request for extension of compliance.* Paragraphs (a)(9) through (14) of this section concern approval of an extension of compliance requested under paragraphs (a)(4) through (6) of this section.

(9) *General.* Based on the information provided in any request made under paragraphs (a)(4) through (6) of this section, or other information, the Administrator may grant an extension of compliance with an emission standard, as specified in paragraphs (a)(4) and (5) of this section.

(10) *Contents of extension.* The extension will be in writing and will—

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v)(A) Under paragraph (a)(4) of this section, specify any additional conditions that the Administrator deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (a)(5)of this section, specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) *Progress reports.* The owner or operator of an existing source that has been granted an extension of compliance under paragraph (a)(10) of this section may be required to submit to the Administrator progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (a)(9) of this section.

(12) *Notifications to owners and operators regarding compliance extensions for section 112(d) standards.* (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 days after receipt of sufficient information to evaluate a request submitted under paragraph (a)(4)(i) or (a)(5) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 days after receipt of the original application and within 30 days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not

complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with—

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 days after presentation of additional information or argument (if the application is complete), or within 30 days after the final date specified for the presentation if no presentation is made.

(13) *Notifications to owners and operators regarding compliance extensions for section 112(f) standards.* (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 days after receipt of sufficient information to evaluate a request submitted under paragraph (a)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 days after receipt of the original application and within 15 days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with—

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 days after presentation of additional information or argument (if the application is complete), or within 30 days after the final date specified for the presentation if no presentation is made.

(14) *Termination of extension.* The Administrator may terminate an extension of compliance at an earlier date than specified if any specification under paragraphs (a)(10)(iii) or (iv) of this section is not met.

(15) [Reserved]

(16) *Administrator's authority.* The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(b) *Waiver of performance tests*—(1) *Applicability of this section.* Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) *General.* Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test.* (i) If a request is made for an extension of compliance under paragraph (a) of this section, the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if a site-specific test plan is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report, but it shall be submitted at least 60 days before the performance test if a site-specific test plan is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (b)(3) of this section when he/she—

(i) Approves or denies an extension of compliance under paragraph (a) of this section; or

(ii) Approves or disapproves a site-specific test plan; or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) *Administrator's authority.* Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

(c) *Use of an alternative monitoring method*—(1) *General.* Until permission to use an alternative monitoring method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) *Alternatives to monitoring methods.* After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials

(ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) *Conflicts between alternative and required methods.* If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) *Request to use alternative monitoring method.* An owner or operator who wishes to use an alternative monitoring method shall submit an application to the Administrator as described in paragraph (c)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring method is not used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring method is to be used to demonstrate compliance with a relevant standard, the application shall be submitted not later than with the site-specific test plan required, or with the site-specific performance evaluation plan (if requested), or at least 60 days before the performance evaluation is scheduled to begin.

(ii) The application shall contain a description of the proposed alternative monitoring system and a performance evaluation test plan, if required. In addition, the application shall include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (c)(4)(i) of this section to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(5) *Approval of request to use alternative monitoring method.* (i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 days after receipt of the original request and within 30 days after receipt of any supplementary information that is submitted. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with—

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (c)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (c)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed

by this subpart or a subpart referenced by this subpart.

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (c)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements specified in this subpart or subpart referenced by this subpart demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(d) *Waiver of recordkeeping or reporting requirements.* (1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the recordkeeping and reporting requirements of this subpart and any subparts referenced by this subpart.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the

affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request. Electronic reporting to the EPA cannot be waived, and as such, compliance with the provisions of this paragraph does not relieve owners or operators of affected facilities of the requirement to submit electronic reports required in this subpart to the EPA.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under paragraph (a) of this section, any required compliance progress report or compliance status report required under this part or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under § 63.999(c) or another subpart referenced by this subpart, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she—

(i) Approves or denies an extension of compliance under paragraph (a) of this section; or

(ii) Makes a determination of compliance following the submission of a required Notification of Compliance Status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[64 FR 34921, June 29, 1999, as amended at 85 FR 40440, July 6, 2020]

§ 63.1113 Procedures for approval of alternative means of emission limitation.

(a) *Alternative means of emission limitation.* An owner or operator of an affected source may request a determination of alternative means of emission limitation to the requirements of design, equipment, work practice, or operational standards of this subpart or of a subpart referenced by this subpart. If, in the judgment of the Administrator, an alternative means of emission limitation will achieve a reduction in HAP emissions at least equivalent to the reduction in emissions from that source achieved under any design, equipment, work practice, or operational standards (but not performance standards) in this subpart, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(1) The notice may condition the permission on requirements related to the operation and maintenance of the alternative means.

(2) Any such notice shall be published only after public notice and an opportunity for public comment.

(b) *Content of submittal.* (1) In order to obtain approval, any person seeking permission to use an alternative means of compliance under this section shall collect, verify, and submit to the Administrator information showing that the alternative means achieves equivalent emission reductions. An owner or operator of an affected source seeking permission to use an alternative means of compliance who has not previously performed testing shall also submit a proposed test plan. If the owner or operator seeks permission to use an alternative means of compliance based on previously performed testing, they shall submit the results of testing, a description of the procedures followed

in testing or monitoring, and a description of pertinent conditions during testing or monitoring.

(2) The owner or operator who requests an alternative means of emissions limitation shall submit a description of the proposed testing, monitoring, recordkeeping, and reporting that will be used and the proposed basis for demonstrating compliance.

(3) For storage vessels, the owner or operator shall include the results of actual emissions tests using full-size or scale-model storage vessels that accurately collect and measure all regulated HAP emissions using a given control technique, and that accurately simulate wind and account for other emission variables such as temperature and barometric pressure, or an engineering analysis that the Administrator determines to be an accurate method of determining equivalence.

(4) For proposed alternatives to equipment leak requirements referenced by this subpart, the owner or operator shall also submit the information specified in and meet the requirements for alternate means of emission limitation specified in the referenced subparts.

[64 FR 34921, June 29, 1999, as amended at 85 FR 40440, July 6, 2020]

§ 63.1114 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under subpart E to this part, the authorities contained in paragraphs (b)(1) through (6) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the nonopacity emissions standards in §63.1103(a)(3), (b)(3) through (5), (c)(3), (d)(3), (e)(3), (f)(3), (g)(3) and (4), and (h)(3) under §63.6(g). Follow the requirements in §63.1113 to request permission to use an alternative means of emission limitation. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(2) [Reserved]

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

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

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

(6) Approval of an alternative to any electronic reporting to EPA required by this subpart.

[67 FR 46289, July 12, 2002, as amended at 85 FR 40440, July 6, 2020]

Subparts ZZ–BBB [Reserved]

Subpart CCC—National Emission Standards for Hazardous Air Pollutants for Steel Pickling—HCl Process Facilities and Hydrochloric Acid Regeneration Plants

SOURCE: 64 FR 33218, June 22, 1999, unless otherwise noted.

§ 63.1155 Applicability.

(a) The provisions of this subpart apply to the following facilities and plants that are major sources for hazardous air pollutants (HAP) or are parts of facilities that are major sources for HAP:

(1) All new and existing steel pickling facilities that pickle carbon steel using hydrochloric acid solution that contains 6 percent or more by weight HCl and is at a temperature of 100 °F or higher; and

(2) All new and existing hydrochloric acid regeneration plants.

(3) The provisions of this subpart do not apply to facilities that pickle carbon steel without using hydrochloric

acid, to facilities that pickle only specialty steel, or to acid regeneration plants that regenerate only acids other than hydrochloric acid.

(b) For the purposes of implementing this subpart, the affected sources at a facility or plant subject to this subpart are as follows: Continuous and batch pickling lines, hydrochloric acid regeneration plants, and hydrochloric acid storage vessels.

(c) Table 1 to this subpart specifies the provisions of this part 63, subpart A that apply and those that do not apply to owners and operators of steel pickling facilities and hydrochloric acid regeneration plants subject to this subpart.

(d) In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by a malfunction, as defined in §63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet the burden of proving all the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements of paragraph (d)(2) of this section, and must prove by a preponderance of evidence that:

(i) The violation was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal and usual manner; and could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and did not stem from any activity or event that could have been foreseen and avoided, or planned for; and was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when exceeded violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using the best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(2) *Report.* The owner of operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (d)(1) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmation defense report may be included in the second compliance, deviation report or excess emission report due after the initial

occurrence of the violation of the relevant standard.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58250, Sept. 19, 2012]

§ 63.1156 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in subpart A of this part, or in this section as follows:

Affirmative defense means, in the context of an enforcement proceeding, a response or a defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Batch pickling line means the collection of equipment and tanks configured for pickling metal in any form but usually in discrete shapes where the material is lowered in batches into a bath of acid solution, allowed to remain until the scale is dissolved, then removed from the solution, drained, and rinsed by spraying or immersion in one or more rinse tanks to remove residual acid.

Carbon steel means steel that contains approximately 2 percent or less carbon, 1.65 percent or less manganese, 0.6 percent or less silicon, and 0.6 percent or less copper.

Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport emissions from a process unit or piece of equipment (e.g., pumps, pressure relief devices, sampling connections, open-ended valves or lines, connectors, and instrumentation systems) back into a closed system or into any device that is capable of reducing or collecting emissions.

Continuous pickling line means the collection of equipment and tanks configured for pickling metal strip, rod, wire, tube, or pipe that is passed through an acid solution in a continuous or nearly continuous manner and rinsed in another tank or series of tanks to remove residual acid. This definition includes continuous spray towers.

Hydrochloric acid regeneration plant means the collection of equipment and processes configured to reconstitute fresh hydrochloric acid pickling solution from spent pickle liquor using a thermal treatment process.

Hydrochloric acid regeneration plant production mode means operation under conditions that result in production of usable regenerated acid or iron oxide.

Hydrochloric acid storage vessel means a stationary vessel used for the bulk containment of virgin or regenerated hydrochloric acid.

Responsible maintenance official means a person designated by the owner or operator as having the knowledge and the authority to sign records and reports required under this rule.

Specialty steel means a category of steel that includes silicon electrical, alloy, tool, and stainless steels.

Spray tower means an enclosed vertical tower in which acid pickling solution is sprayed onto moving steel strip in multiple vertical passes.

Steel pickling means the chemical removal of iron oxide mill scale that is formed on steel surfaces during hot rolling or hot forming of semi-finished steel products through contact with an aqueous solution of acid where such contact occurs prior to shaping or coating of the finished steel product. This definition does not include removal of light rust or scale from finished steel products or activation of the metal surface prior to plating or coating.

Steel pickling facility means any facility that operates one or more batch or continuous steel pickling lines.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58250, Sept. 19, 2012]

§ 63.1157 Emission standards for existing sources.

(a) *Pickling lines.* No owner or operator of an existing affected continuous or batch pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(1) Any gases that contain HCl in a concentration in excess of 18 parts per million by volume (ppmv); or

(2) HCl at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

(b) *Hydrochloric acid regeneration plants.* (1) No owner or operator of an

existing affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain HCl in a concentration greater than 25 ppmv.

(2) In addition to the requirement of paragraph (b)(1) of this section, no owner or operator of an existing plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain chlorine (Cl_2) in a concentration in excess of 6 ppmv.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58250, Sept. 19, 2012]

§ 63.1158 Emission standards for new or reconstructed sources.

(a) *Pickling lines*—(1) *Continuous pickling lines.* No owner or operator of a new or reconstructed affected continuous pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(i) Any gases that contain HCl in a concentration in excess of 6 ppmv; or

(ii) HCl at a mass emission rate that corresponds to a collection efficiency of less than 99 percent.

(2) *Batch pickling lines.* No owner or operator of a new or reconstructed affected batch pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(i) Any gases that contain HCl in a concentration in excess of 18 ppmv; or

(ii) HCl at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

(b) *Hydrochloric acid regeneration plants.* (1) No owner or operator of a new or reconstructed affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain HCl in a concentration greater than 12 ppmv.

(2) In addition to the requirement of paragraph (b)(1) of this section, no owner or operator of a new or reconstructed affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain Cl_2 in a concentration in excess of 6 ppmv.

§ 63.1159 Operational and equipment standards for existing, new, or reconstructed sources.

(a) *Hydrochloric acid regeneration plant.* The owner or operator of an affected plant must operate the affected plant at all times while in production mode in a manner that minimizes the proportion of excess air fed to the process and maximizes the process offgas temperature consistent with producing usable regenerated acid or iron oxide.

(b) *Hydrochloric acid storage vessels.* The owner or operator of an affected vessel shall provide and operate, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device.

(c) *General duty to minimize emissions.* At all times, each owner or operator must operate and maintain any affected source subject to the requirements of this subpart, including associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58250, Sept. 19, 2012]

§ 63.1160 Compliance dates and maintenance requirements.

(a) *Compliance dates.* (1) The owner or operator of an affected existing steel pickling facility and/or hydrochloric acid regeneration plant subject to this

subpart shall achieve initial compliance with the requirements of this subpart no later than June 22, 2001.

(2) The owner or operator of a new or reconstructed steel pickling facility and/or hydrochloric acid regeneration plant subject to this subpart that commences construction or reconstruction after September 18, 1997, shall achieve compliance with the requirements of this subpart immediately upon startup of operations or by June 22, 1999, whichever is later.

(b) *Maintenance requirements.* (1) The owner or operator shall prepare an operation and maintenance plan for each emission control device to be implemented no later than the compliance date. The plan shall be incorporated by reference into the source's title V permit. All such plans must be consistent with good maintenance practices, and, for a scrubber emission control device, must at a minimum:

(i) Require monitoring and recording the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance;

(ii) Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans;

(iii) Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling;

(iv) Require an inspection of each scrubber at intervals of no less than 3 months with:

(A) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices;

(B) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components;

(C) Repair or replacement of droplet eliminator elements as needed;

(D) Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and

(E) Adjustment of damper settings for consistency with the required air flow.

(v) If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used.

(vi) The owner or operator shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement of this subpart.

(vii) The owner or operator shall maintain a record of each inspection, including each item identified in paragraph (b)(2)(iv) of this section, that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken.

(2) The owner or operator of each hydrochloric acid regeneration plant shall develop and implement a written maintenance program. The program shall require:

(i) Performance of the manufacturer's recommended maintenance at the recommended intervals on all required systems and components;

(ii) Initiation of procedures for appropriate and timely repair, replacement, or other corrective action within 1 working day of detection; and

(iii) Maintenance of a daily record, signed by a responsible maintenance official, showing the date of each inspection for each requirement, the problems found, a description of the repair, replacement, or other action taken, and the date of repair or replacement.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58250, Sept. 19, 2012]

§ 63.1161 Performance testing and test methods.

(a) *Demonstration of compliance.* The owner or operator shall conduct an initial performance test for each process or emission control device to determine and demonstrate compliance with the applicable emission limitation according to the requirements in § 63.7 of subpart A of this part and in this section. 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. 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.

(b) *Establishment of scrubber operating parameters.* During the performance test for each emission control device, the owner or operator using a wet scrubber to achieve compliance shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation, the minimum recirculation water flow rate. During the emission test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The owner or operator shall determine the operating parameter monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency per paragraph (a)(2) of this section. An owner or operator may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, an owner or operator may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.

(c) *Establishment of hydrochloric acid regeneration plant operating parameters.* (1) During the performance test for hydrochloric acid regeneration plants, the owner or operator shall establish site-specific operating parameter values for the minimum process offgas temperature and the maximum proportion of excess air fed to the process as described in § 63.1162(b)(1) of this subpart. During the emission test, each operating parameter must be monitored and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes for parameters that are monitored continuously. Amount of iron in the spent pickle liquor shall be determined for each run by sampling the liquor every 15 minutes and analyzing a composite of the samples. The owner or operator shall determine the compliant monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration per paragraph (a)(2) of this section. An owner or operator may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, an owner or operator may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.

(2) [Reserved]

(d) *Test methods.* (1) The following test methods in appendix A of 40 CFR part 60 shall be used to determine compliance under §§ 63.1157(a), 63.1157(b), 63.1158(a), and 63.1158(b) of this subpart:

(i) Method 1, to determine the number and location of sampling points, with the exception that no traverse point shall be within one inch of the stack or duct wall;

(ii) Method 2, to determine gas velocity and volumetric flow rate;

(iii) Method 3, to determine the molecular weight of the stack gas;

(iv) Method 4, to determine the moisture content of the stack gas; and

(v) Method 26A, ''Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources—Isokinetic Method,'' to determine the HCl mass flows at the inlet and outlet of a control device or the concentration of HCl discharged to the atmosphere, and also to determine the concentration of Cl_2 discharged to the atmosphere from acid regeneration plants. If compliance with a collection

efficiency standard is being demonstrated, inlet and outlet measurements shall be performed simultaneously. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (30 dry standard cubic feet). The concentrations of HCl and Cl_2 shall be calculated for each run as follows:

C_{HCl} (ppmv) = 0.659 C_{HCl} (mg/dscm),
and C_{C12} (ppmv) = 0.339 C_{C12} (mg/dscm),

where C(ppmv) is concentration in ppmv and C(mg/dscm) is concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.

(2) The owner or operator may use equivalent alternative measurement methods approved by the Administrator.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58251, Sept. 19, 2012]

§ 63.1162 Monitoring requirements.

(a) The owner or operator of a new, reconstructed, or existing steel pickling facility or acid regeneration plant subject to this subpart shall:

(1) Conduct performance tests to measure the HCl mass flows at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in § 63.1161 of this subpart. Performance tests shall be conducted either annually or according to an alternative schedule that is approved by the applicable permitting authority, but no less frequently than every 2½ years or twice per title V permit term. If any performance test shows that the HCl emission limitation is being exceeded, then the owner or operator is in violation of the emission limit.

(2) In addition to conducting performance tests, if a wet scrubber is used as the emission control device, install, operate, and maintain systems for the measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate. These flow rates must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in § 63.1160(b)(2) of this subpart.

(3) If an emission control device other than a wet scrubber is used, install, operate, and maintain systems for the measurement and recording of the appropriate operating parameters.

(4) Failure to record each of the operating parameters listed in paragraph (a)(2) of this section is a violation of the monitoring requirements of this subpart.

(5) Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

(6) The owner or operator may develop and implement alternative monitoring requirements subject to approval by the Administrator.

(b) The owner or operator of a new, reconstructed, or existing acid regeneration plant subject to this subpart shall also install, operate, and maintain systems for the measurement and recording of the:

(1) Process offgas temperature, which shall be monitored continuously and recorded at least once every shift while the facility is operating in production mode; and

(2) Parameters from which proportion of excess air is determined. Proportion of excess air shall be determined by a combination of total air flow rate, fuel flow rate, spent pickle liquor addition rate, and amount of iron in the spent pickle liquor, or by any other combination of parameters approved by the Administrator in accordance with § 63.8(f) of subpart A of this part. Proportion of excess air shall be determined and recorded at least once every shift while the plant is operating in production mode.

(3) Each monitoring device must be certified by the manufacturer to be accurate to within 5 percent and must be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

(4) Operation of the plant with the process offgas temperature lower than

the value established during performance testing or with the proportion of excess air greater than the value established during performance testing is a violation of the operational standard specified in § 63.1159(a) of this subpart.

(c) The owner or operator of an affected hydrochloric acid storage vessel shall inspect each vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required.

§ 63.1163 Notification requirements.

(a) *Initial notifications.* As required by § 63.9(b) of subpart A of this part, the owner or operator shall submit the following written notifications to the Administrator:

(1) The owner or operator of an area source that subsequently becomes subject to the requirements of the standard shall provide notification to the applicable permitting authority as required by § 63.9(b)(1) of subpart A of this part.

(2) As required by § 63.9(b)(2) of subpart A of this part, the owner or operator of an affected source that has an initial startup before June 22, 1999, shall notify the Administrator that the source is subject to the requirements of the standard. The notification shall be submitted not later than October 20, 1999 (or within 120 calendar days after the source becomes subject to this standard), and shall contain the information specified in §§ 63.9(b)(2)(i) through 63.9(b)(2)(v) of subpart A of this part.

(3) As required by § 63.9(b)(3) of subpart A of this part, the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date and for which an application for approval of construction or reconstruction is not required under § 63.5(d) of subpart A of this part, shall notify the Administrator in writing that the source is subject to the standards no later than 120 days after initial startup, or no later than 120 days after the source becomes subject to this subpart, whichever is later. The notification shall contain the information specified in §§ 63.9(b)(2)(i) through (v) of subpart A of this part, delivered or postmarked with the notification required in § 63.9(b)(5) of subpart A of this part.

(4) As required by § 63.9(b)(4) of subpart A of this part, the owner or operator of a new or reconstructed major affected source that has an initial startup after June 22, 1999, and for which an application for approval of construction or reconstruction is required under § 63.5(d) of subpart A of this part shall provide the information specified in §§ 63.9(b)(4)(i) through 63.9(b)(4)(v) of subpart A of this part.

(5) As required by § 63.9(b)(5) of subpart A of this part, the owner or operator who, after June 22, 1999, intends to construct a new affected source or reconstruct an affected source subject to this standard, or reconstruct a source such that it becomes an affected source subject to this standard, shall notify the Administrator, in writing, of the intended construction or reconstruction.

(b) *Request for extension of compliance.* As required by § 63.9(c) of subpart A of this part, if the owner or operator of an affected source cannot comply with this standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of subpart A of this part, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in §§ 63.6(i)(4) through 63.6(i)(6) of subpart A of this part.

(c) *Notification that source is subject to special compliance requirements.* As required by § 63.9(d) of subpart A of this part, an owner or operator of a new source that is subject to special compliance requirements as specified in §§ 63.6(b)(3) and 63.6(b)(4) of subpart A of this part shall notify the Administrator of his/her compliance obligations not later than the notification dates established in § 63.9(b) of subpart A of this part for new sources that are not subject to the special provisions.

(d) *Notification of performance test.* As required by § 63.9(e) of subpart A of this

part, the owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, to allow the Administrator to review and approve the site-specific test plan required under §63.7(c) of subpart A of this part and, if requested by the Administrator, to have an observer present during the test.

(e) *Notification of compliance status.* The owner or operator of an affected source shall submit a notification of compliance status as required by §63.9(h) of subpart A of this part when the source becomes subject to this standard.

[64 FR 33218, June 22, 1999, as amended at 85 FR 73897, Nov. 19, 2020]

§ 63.1164 Reporting requirements.

(a) *Reporting results of performance tests.* Within 60 days after the date of completing each performance test (defined in §63.2), as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/;cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(b) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports under §63.6(i) of subpart A of this part shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(c) *Reporting malfunctions.* The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half.

[64 FR 33218, June 22, 1999, as amended at 71 FR 20458, Apr. 20, 2006; 77 FR 58251, Sept. 19, 2012]

§ 63.1165 Recordkeeping requirements.

(a) *General recordkeeping requirements.* As required by §63.10(b)(2) of subpart A of this part, the owner or operator shall maintain records for 5 years from the date of each record of:

(1) The occurrence and duration of each malfunction of operation (*i.e.*, process equipment);

(2) The occurrence and duration of each malfunction of the air pollution control equipment;

(3) All maintenance performed on the air pollution control equipment;

(4) Actions taken during periods of malfunction to minimize emissions in accordance with §63.1259(c) and the dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation);

(5) All required measurements needed to demonstrate compliance with the standard and to support data that the source is required to report, including, but not limited to, performance test measurements (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests;

(6) All results of initial or subsequent performance tests;

(7) If the owner or operator has been granted a waiver from recordkeeping or reporting requirements under §63.10(f) of subpart A of this part, any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements;

(8) If the owner or operator has been granted a waiver from the initial performance test under §63.7(h) of subpart A of this part, a copy of the full request and the Administrator's approval or disapproval;

(9) All documentation supporting initial notifications and notifications of compliance status required by §63.9 of subpart A of this part; and

(10) Records of any applicability determination, including supporting analyses.

(b) *Subpart CCC records.* (1) In addition to the general records required by paragraph (a) of this section, the owner or operator shall maintain records for 5 years from the date of each record of:

(i) Scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used;

(ii) Calibration and manufacturer certification that monitoring devices are accurate to within 5 percent; and

(iii) Each maintenance inspection and repair, replacement, or other corrective action.

(2) The owner or operator of an acid regeneration plant shall also maintain records for 5 years from the date of each record of process offgas temperature and parameters that determine proportion of excess air.

(3) The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator for a period of 5 years after each revision to the plan.

(c) *Recent records.* General records and subpart CCC records for the most recent 2 years of operation must be maintained on site. Records for the previous 3 years may be maintained off site.

[64 FR 33218, June 22, 1999, as amended at 77 FR 58251, Sept. 19, 2012]

§63.1166 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (8) of this section.

(1) Approval of alternatives to the requirements in §§ 63.1155, 63.1157 through 63.1159, and 63.1160(a).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of any alternative measurement methods for HCl and CL_2 to those specified in § 63.1161(d)(1).

(4) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(5) Approval of any alternative monitoring requirements to those specified in §§ 63.1162(a)(2) through (5) and 63.1162(b)(1) through (3).

(6) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

(7) Waiver of recordkeeping requirements specified in § 63.1165.

(8) Approval of an alternative schedule for conducting performance tests to the requirement specified in § 63.1162(a)(1).

[68 FR 37356, June 23, 2003]

§§ 63.1167–63.1174 [Reserved]

TABLE 1 TO SUBPART CCC OF PART 63—APPLICABILITY OF GENERAL PROVISIONS (40 CFR PART 63, SUBPART A) TO SUBPART CCC

Reference	Applies to Subpart CCC	Explanation
63.1–63.5	Yes.	
63.6 (a)–(d)	Yes.	
63.6(e)(1)(i)	No	See § 63.1259(c) for general duty requirement. Any cross-reference to § 63.6(e)(1)(i) in any other general provision incorporated by reference shall be treated as a cross-reference to § 63.1259(c).
63.6(e)(1)(ii)	No.	
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No.	
63.6(f)(1)	No.	
63.6(f)(2)–(3)	Yes.	
63.6(g)	Yes.	
63.6(h)	No	Subpart CCC does not contain an opacity or visible emission standard.
63.6 (i)–(j)	Yes.	
63.7	Yes.	
63.8(a)–(c)	Yes.	
63.8(d)(1)–(2)	Yes.	
63.8(d)(3)	Yes, except for last sentence.	
63.8(e)–(f)	Yes.	
63.9(j)	Yes.	
63.9(k)	Yes	Only as specified in § 63.9(j).
63.10(a)	Yes.	
63.10(b)(1)	Yes.	
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No	See § 63.1265(a)(1) for recordkeeping of occurrence and duration of malfunctions. See § 63.1265(a)(4) for recordkeeping of actions taken during malfunction. Any cross-reference to § 63.10(b)(2)(ii) in any other general provision incorporated by reference shall be treated as a cross-reference to § 63.1265(a)(1).
63.10(b)(2)(iii)	Yes.	
63.10(b)(2)(iv)–(b)(2)(v)	No.	
63.10(b)(2)(vi)–(b)(2)(xiv)	Yes.	
63.10(b)(3)	Yes.	
63.10(c)(1)–(9)	Yes.	
63.10(c)(10)	No	See § 63.1164(c) for reporting malfunctions. Any cross-reference to § 63.10(c)(10) in any other general provision incorporated by reference shall be treated as a cross-reference to § 63.1164(c).
63.10(c)(11)	No	See § 63.1164(c) for reporting malfunctions. Any cross-reference to § 63.10(c)(11) in any other general provision incorporated by reference shall be treated as a cross-reference to § 63.1164(c).
63.10(c)(12)–(c)(14)	Yes.	

Reference	Applies to Subpart CCC	Explanation
63.10(c)(15)	No.	
63.10(d)(1)–(2)	Yes.	
63.10(d)(3)	No	Subpart CCC does not contain an opacity or visible emission standard.
63.10(d)(4)	Yes.	
63.10(d)(5)	No.	
63.10(e)–(f)	Yes.	
63.11	No	Subpart CCC does not require the use of flares.
63.12–63.15	Yes.	

[64 FR 33218, June 22, 1999, as amended at 77 FR 58252, Sept. 19, 2012; 85 FR 73897, Nov. 19, 2020]

Subpart DDD—National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production

SOURCE: 64 FR 29503, June 1, 1999, unless otherwise noted.

§ 63.1175 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants emitted from existing, new, and reconstructed cupolas and curing ovens at facilities that produce mineral wool.

§ 63.1176 Where can I find definitions of key words used in this subpart?

The definitions of key words used in this subpart are in the Clean Air Act (Act), in § 63.2 of the general provisions in subpart A of this part, and in § 63.1196 of this subpart.

§ 63.1177 Am I subject to this subpart?

You are subject to this subpart if you own or operate an existing, new, or reconstructed mineral wool production facility that is located at a plant site that is a major source of hazardous air pollutant (HAP) emissions, meaning the plant emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAPs at a rate of 22.68 megagrams (25 tons) or more per year.

STANDARDS

§ 63.1178 For cupolas, what standards must I meet?

(a) You must control emissions from each cupola as specified in Table 2 to this subpart.

(b) You must meet the following operating limits for each cupola:

(1) Begin within one hour after the alarm on a bag leak detection system sounds, and complete in a timely manner, corrective actions as specified in your operations, maintenance, and monitoring plan required by § 63.1187 of this subpart.

(2) When the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period, develop and implement a written quality improvement plan (QIP) consistent with the compliance assurance monitoring requirements of § 64.8(b)–(d) of 40 CFR part 64.

(3) Additionally, on or after the applicable compliance date for each new or reconstructed cupola, you must either:

(i) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test, or

(ii) Maintain the percent excess oxygen in the cupola at or above the level established during the performance test. You must determine the percent excess oxygen using the following equation:

$$\text{Percent excess oxygen} = \left(\left(\frac{\text{Oxygen available}}{\text{Fuel demand for oxygen}}\right) - 1\right) * 100$$

Where:

Percent excess oxygen = Percentage of excess oxygen present above the stoichiometric balance of 1.00, (%).

1.00 = Ratio of oxygen in a cupola combustion chamber divided by the stoichiometric quantity of oxygen required to obtain complete combustion of fuel.

Oxygen available = Quantity of oxygen introduced into the cupola combustion zone.

Fuel demand for oxygen = Required quantity of oxygen for stoichiometric combustion of the quantity of fuel present.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45329, July 29, 2015]

§ 63.1179 For curing ovens or combined collection/curing operations, what standards must I meet?

(a) You must control emissions from each curing oven or combined collection/curing operations as specified in Table 2 to this subpart.

(b) You must meet the following operating limits for each curing oven or combined collection/curing operation:

(1) Maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges of the resin and binder used during the performance test.

(2) Maintain the operating temperature of each incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45329, July 29, 2015]

§ 63.1180 When must I meet these standards?

(a) Cupolas and curing ovens or combined collection/curing operations. You must comply with the emissions limits specified in Table 2 to this subpart no later than the dates specified in Table 2 to this subpart.

(b) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[80 FR 45329, July 29, 2015]

Compliance With Standards

§ 63.1181 How do I comply with the particulate matter standards for existing, new, and reconstructed cupolas?

To comply with the PM standards, you must meet all of the following:

(a) Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric filter.

(b) Do a performance test as specified in § 63.1188 of this subpart and show compliance with the PM emission limits while the bag leak detection system is installed, operational, and properly adjusted.

(c) Begin corrective actions specified in your operations, maintenance, and monitoring plan required by § 63.1187 of this subpart within one hour after the alarm on a bag leak detection system sounds. Complete the corrective actions in a timely manner.

(d) Develop and implement a written QIP consistent with compliance assurance monitoring requirements of 40 CFR 64.8(b) through (d) when the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period.

§ 63.1182 How do I comply with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride standards for existing, new, and reconstructed cupolas?

To comply with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride standards, you must meet the following:

(a) Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.

(b) Conduct a performance test as specified in § 63.1188 that shows compliance with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride emissions limits specified in Table 2 to this subpart, while the device for measuring incinerator operating temperature is installed, operational, and properly calibrated. Establish the average operating temperature based on the performance test as specified in § 63.1185(a).

(c) Following the performance test, measure and record the average operating temperature of the incinerator as specified in § 63.1185(b) of this subpart.

(d) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

(e) Operate and maintain the incinerator as specified in your operations, maintenance, and monitoring plan required by § 63.1187 of this subpart.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45329, July 29, 2015]

§ 63.1183 How do I comply with the formaldehyde, phenol, and methanol standards for existing, new, and reconstructed combined collection/curing operations?

To comply with the formaldehyde, phenol, and methanol standards, you must meet all of the following:

(a) Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.

(b) Conduct a performance test as specified in § 63.1188 while manufacturing the product that requires a binder formulation made with the resin containing the highest free-formaldehyde content specification range. Show compliance with the formaldehyde, phenol, and methanol emissions limits, specified in Table 2 to this subpart, while the device for measuring the control device operating parameter is installed, operational, and properly calibrated. Establish the average operating parameter based on the performance test as specified in § 63.1185(a).

(c) During the performance test that uses the binder formulation made with the resin containing the highest free-formaldehyde content specification range, record the free-formaldehyde content specification range of the resin used, and the formulation of the binder used, including the formaldehyde content and binder specification.

(d) Following the performance test, monitor and record the free-formaldehyde content of each resin lot and the formulation of each batch of binder used, including the formaldehyde, phenol, and methanol content.

(e) Maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges established during the performance test.

(f) Following the performance test, measure and record the average operating temperature of the incinerator as specified in § 63.1185(b) of this subpart.

(g) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

(h) Operate and maintain the incinerator as specified in your operations, maintenance, and monitoring plan required by § 63.1187 of this subpart.

(i) With prior approval from the Administrator, you may do short-term experimental production runs using resin where the free-formaldehyde content, or binder formulations where the formaldehyde content, is higher than the specification ranges of the resin and binder used during previous performance tests, or using experimental pollution prevention process modifications without first doing additional performance tests. Notification of intent to

perform a short-term experimental production run must include the following information:

(1) The purpose of the experimental run.

(2) The affected production process.

(3) How the resin free-formaldehyde content or binder formulation will deviate from previously approved levels or what the experimental pollution prevention process modifications are.

(4) The duration of the experimental run.

(5) The date and time of the experimental run.

(6) A description of any emissions testing to be done during the experimental run.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

ADDITIONAL MONITORING INFORMATION

§ 63.1184 What do I need to know about the design specifications, installation, and operation of a bag leak detection system?

A bag leak detection system must meet the following requirements:

(a) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(b) The sensor on the bag leak detection system must provide output of relative PM emissions.

(c) The bag leak detection system must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(d) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(e) For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm.

(f) Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows EPA's ''Fabric Filter Bag Leak Detection Guidance'' (EPA–454/R–98–015, September 1997). Other bag leak detection systems must be installed, operated, adjusted, and maintained so that they follow the manufacturer's written specifications and recommendations.

(g) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(1) Adjust the range and the averaging period of the device.

(2) Establish the alarm set points and the alarm delay time.

(h) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by § 63.1187 of this subpart. In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless a responsible official as defined in § 63.2 of the general provisions in subpart A of this part certifies in writing to the Administrator that the fabric filter has been inspected and found to be in good operating condition.

§ 63.1185 How do I establish the average operating temperature of an incinerator?

(a) During the performance test, you must establish the average operating temperature of an incinerator as follows:

(1) Continuously measure the operating temperature of the incinerator.

(2) Determine and record the average temperatures in consecutive 15-minute blocks.

(3) Determine and record the arithmetic average of the recorded average temperatures measured in consecutive 15-minute blocks for each of the one-hour performance test runs.

(4) Determine and record the arithmetic average of the three one-hour average temperatures during the performance test runs. The average of the three one-hour performance test runs establishes the temperature level to use to monitor compliance.

(b) To comply with the requirements for maintaining the operating temperature of an incinerator after the performance test, you must measure and record the average operating temperature of the incinerator as required by §§ 63.1182 and 63.1183 of this subpart. This average operating temperature of the incinerator is based on the arithmetic average of the one-hour average temperatures for each consecutive three-hour period and is determined in the same manner described in paragraphs (a)(1) through (a)(4) of this section.

§ 63.1186 How may I change the compliance levels of monitored parameters?

You may change control device and process operating parameter levels established during performance tests and used to monitor compliance if you do the following:

(a) You must notify the Administrator of your desire to expand the range of a control device or process operating parameter level.

(b) Upon approval from the Administrator, you must conduct additional performance tests at the proposed new control device or process operating parameter levels. Before operating at these levels, the performance test results must verify that, at the new levels, you comply with the emission limits in §§ 63.1178 and 63.1179 of this subpart.

§ 63.1187 What do I need to know about operations, maintenance, and monitoring plans?

(a) An operations, maintenance, and monitoring plan must be submitted to the Administrator for review and approval as part of your application for the title V permit.

(b) The operations, maintenance, and monitoring plan must include the following:

(1) Process and control device parameters you will monitor to determine compliance, along with established operating levels or ranges for each process or control device.

(2) A monitoring schedule.

(3) Procedures for properly operating and maintaining control devices used to meet the standards in §§ 63.1178 and 63.1179 of this subpart. These procedures must include an inspection of each incinerator at least once per year. At a minimum, you must do the following as part of an incinerator inspection:

(i) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation. Clean pilot sensor if necessary.

(ii) Ensure proper adjustment of combustion air, and adjust if necessary.

(iii) Inspect, when possible, all internal structures (such as baffles) to ensure structural integrity per the design specifications.

(iv) Inspect dampers, fans, and blowers for proper operation.

(v) Inspect motors for proper operation.

(vi) Inspect, when possible, combustion chamber refractory lining. Clean, and repair or replace lining if necessary.

(vii) Inspect incinerator shell for proper sealing, corrosion, and/or hot spots.

(viii) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments.

(ix) Generally observe whether the equipment is maintained in good operating condition.

(x) Complete all necessary repairs as soon as practicable.

(4) Procedures for keeping records to document compliance.

(5) Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media, or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

PERFORMANCE TESTS AND METHODS

§ 63.1188 What performance test requirements must I meet?

You must meet the following performance test requirements:

(a) All monitoring systems and equipment must be installed, operational, and properly calibrated before the performance tests.

(b) Conduct a performance test, consisting of three test runs, for each cupola and curing oven or combined collection/curing operation subject to this subpart at the maximum production rate to demonstrate compliance with each of the applicable emissions limits specified in Table 2 to this subpart.

(c) Following the initial performance or compliance test to be conducted within 180 days of the effective date of this rule, you must conduct a performance test to demonstrate compliance with each of the applicable emissions limits specified in Table 2 to this subpart, at least once every 5 years.

(d) To demonstrate compliance with the applicable emission limits specified in Table 2 to this subpart, measure emissions of PM, carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride from each existing, new, or reconstructed cupola.

(e) To demonstrate compliance with the applicable emission limits specified in Table 2 to this subpart, measure emissions of formaldehyde, phenol, and methanol from each existing, new, or reconstructed curing oven or combined collection/curing operation.

(f) To demonstrate compliance with the applicable emission limits specified in Table 2 to this subpart, measure emissions at the outlet of the control device for PM, carbon monoxide, carbonyl sulfide, hydrogen fluoride, hydrogen chloride, formaldehyde, phenol, and methanol.

(g) To determine the average melt rate, measure and record the amount of raw materials, excluding coke, charged into and melted in each cupola during each performance test run. Determine and record the average hourly melt rate for each performance test run. Determine and record the arithmetic average of the average hourly melt rates associated with the three performance test runs. The average hourly melt rate of the three performance test runs is used to determine compliance with the applicable emission limits.

(h) Compute and record the average emissions of the three performance test runs and use the equations in § 63.1190 of this subpart to determine compliance with the applicable emission limits.

(i) Comply with control device and process operating parameter monitoring requirements for performance testing as specified in this subpart.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

§ 63.1189 What test methods do I use?

You must use the following test methods to determine compliance with the applicable emission limits:

(a) Method 1 in appendix A to part 60 of this chapter for the selection of the sampling port locations and number of sampling ports.

(b) Method 2 in appendix A to part 60 of this chapter for stack gas velocity and volumetric flow rate.

(c) Method 3 or 3A in appendix A to part 60 of this chapter for oxygen and carbon dioxide for diluent measurements needed to correct the concentration measurements to a standard basis.

(d) Method 4 in appendix A to part 60 of this chapter for moisture content of the stack gas.

(e) Method 5 in appendix A to part 60 of this chapter for the concentration of PM. Each PM test run must consist of a minimum run time of three hours and a minimum sample volume of 3.75 dscm (135 dscf).

(f) Method 10 in appendix A to part 60 of this chapter for the concentration of CO, using the continuous sampling option described in section 7.1.1 of the method. Each CO test run must consist of a minimum run time of one hour.

(g) Method 318 at 40 CFR part 60, appendix A to this part for the concentration of formaldehyde, phenol, methanol, and carbonyl sulfide.

(h) Method to determine the free-formaldehyde content of each resin lot in appendix A of this subpart.

(i) Method 26A or 320 at 40 CFR part 60, appendix A to this part for the concentration of hydrogen fluoride and hydrogen chloride.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

§ 63.1190 How do I determine compliance?

(a) Using the results of the performance tests, you must use the following equation to determine compliance with the PM emission limit:

$$E = \frac{C \times O \times K_1}{P}$$

where:

E = Emission rate of PM, kg/Mg (lb/ton) of melt.

C = Concentration of PM, g/dscm (gr/dscf).

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr).

K 5_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr).

P = Average melt rate, Mg/hr (ton/hr).

(b) Using the results from the performance tests, you must use the following equation to determine compliance with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, hydrogen chloride, formaldehyde, phenol, and methanol numerical emissions limits as specified in Table 2 to this subpart:

$$E = \frac{C \times MW \times O \times K_1 \times K_2}{K_3 \times P \times 10^6}$$

where:

E = Emission rate of measured pollutant, kg/Mg (lb/ton) of melt.

C = Measured volume fraction of pollutant, ppm.

MW = Molecular weight of measured pollutant, g/g-mole: Carbon monoxide = 28.01, carbonyl sulfide = 60.07, hydrogen fluoride = 20.01, hydrogen chloride = 36.46, Formaldehyde = 30.03, Phenol = 94.11, Methanol = 32.04.

CO = 28.01, Formaldehyde = 30.03.

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr).

K_1 = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g).

K_2 = Conversion factor, 1,000 L/m^3 (28.3 L/ft^3).

K_3 = Conversion factor, 24.45 L/g-mole.

P = Average melt rate, Mg/hr (ton/hr).

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

NOTIFICATION, RECORDKEEPING, AND REPORTING

§ 63.1191 What notifications must I submit?

You must submit written or electronic notifications to the Administrator as required by § 63.9(b) through (h). Electronic notifications are encouraged when possible. These notifications include, but are not limited to, the following:

(a) Notification that the following types of sources are subject to the standard:

(1) An area source that increases its emissions so that it becomes a major source.

(2) A source that has an initial startup before the effective date of the standard.

(3) A new or reconstructed source that has an initial startup after the effective date of the standard and doesn't require an application for approval of construction or reconstruction under § 63.5(d) of the general provisions in subpart A of this part.

(b) Notification of intention to construct a new major source or reconstruct a major source where the initial startup of the new or reconstructed source occurs after the effective date of the standard and an application for approval of construction or reconstruction under § 63.5(d) of the general provisions in subpart A of this part is required.

(c) Notification of special compliance obligations for a new source that is subject to special compliance requirements in § 63.6(b)(3) and (4) of the general provisions in subpart A of this part.

(d) Notification of a performance test at least 60 calendar days before the performance test is scheduled to begin.

(e) Notification of compliance status.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

§ 63.1192 What recordkeeping requirements must I meet?

You must meet the following recordkeeping requirements:

(a) Maintain files of all information required by § 63.10(b) of the general provisions in subpart A of this part, including all notifications and reports.

(b) Maintain records of the following information also:

(1) Cupola production (melt) rate (Mg/hr (tons/hr) of melt).

(2) All bag leak detection system alarms. Include the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected.

(3) The free-formaldehyde content of each resin lot and the binder formulation, including formaldehyde content, of each binder batch used in the manufacture of bonded products.

(4) Incinerator operating temperature and results of incinerator inspections. For all periods when the average temperature in any three-hour block period fell below the average temperature established during the performance test, and all periods when the inspection identified incinerator components in need of repair or maintenance, include the date and time of the problem, when corrective actions were initiated, the cause of the problem, an explanation of the corrective actions taken, and when the cause of the problem was corrected.

(c) Retain each record for at least five years following the date of each occurrence, measurement, corrective action, maintenance, record, or report. The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site.

(d) Records must be maintained in a form suitable and readily available for expeditious review, according to § 63.10 of the General Provisions that are referenced in Table 1 to this subpart. Electronic recordkeeping is encouraged.

(e) Report the required information on paper or on a labeled computer disk using commonly available and compatible computer software.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

§ 63.1193 What reports must I submit?

You must prepare and submit reports to the Administrator as required by this subpart and § 63.10 of the general provisions in subpart A of this part. These reports include, but are not limited to, the following:

(a) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (a)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*http://cdx.epa.gov/epa_home.asp*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT

Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

(b) [Reserved]

(c) A report of each event as required by § 63.10(b) of the general provisions in subpart A of this part, including a report if an action taken during a start-up, shutdown, or malfunction is inconsistent with the procedures in the plan as described in § 63.6(e)(3) of the general provisions in subpart A of this part.

(d) An operations, maintenance, and monitoring plan as specified in § 63.1187 of this subpart.

(e) A semiannual report as required by § 63.10(e)(3) of the general provisions in subpart A of this part if measured emissions exceed the applicable standard or a monitored parameter varies from the level established during performance testing. The report must contain the information specified in § 63.10(c) of the general provisions, as well as the relevant records required by § 63.1192(b) of this subpart.

(f) A semiannual report stating that no excess emissions or deviations of monitored parameters occurred during the reporting period as required by § 63.10(e)(3)(v) of the general provisions in subpart A of this part if no deviations have occurred.

(g) All reports required by this subpart not subject to the requirements in paragraph (a) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraph (a) of this section in paper format.

[64 FR 29503, June 1, 1999, as amended at 80 FR 45330, July 29, 2015]

OTHER REQUIREMENTS AND INFORMATION

§ 63.1194 Which general provisions apply?

The general provisions in subpart A of this part define requirements applicable to all owners and operators affected by NESHAP in part 63. See Table 1 of this subpart for general provisions that apply (or don't apply) to you as an owner or operator subject to the requirements of this subpart.

§ 63.1195 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

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

(1) Approval of alternatives to the requirements in §§ 63.1177 through 63.1180.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37356, June 23, 2003]

§ 63.1196 What definitions should I be aware of?

Terms used in this subpart are defined in the Act, in § 63.2 of the general provisions in subpart A of this part, and in this section as follows:

Bag leak detection system means a monitoring device for a fabric filter that identifies an increase in particulate matter emissions resulting from a broken filter bag or other malfunction and sounds an alarm.

Bonded product means mineral wool to which a hazardous air pollutant-based binder (containing such hazardous air pollutants as phenol or formaldehyde) has been applied.

Closed-top cupola means a cupola that operates as a closed (process) system and has a restricted air flow rate.

CO means, for the purposes of this subpart, emissions of carbon monoxide that serve as a surrogate for emissions of carbonyl sulfide, a compound included on the list of hazardous air pollutants in section 112 of the Act.

Combined collection/curing operations means the combination of fiber collection operations and curing ovens used to make bonded products.

Cupola means a large, water-cooled metal vessel to which is charged a mixture of fuel, rock and/or slag, and additives. As the fuel is burned, the charged mixture is heated to a molten state for later processing to form mineral wool.

Curing oven means a chamber in which heat is used to thermoset a binder on the mineral wool fiber used to make bonded products.

Fabric filter means an air pollution control device used to capture particulate matter by filtering gas streams through fabric bags. It also is known as a baghouse.

Formaldehyde means, for the purposes of this subpart, emissions of formaldehyde that, in addition to being a HAP itself, serve as a surrogate for organic compounds included on the list of hazardous air pollutants in section 112 of the Act, including but not limited to phenol.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

I means the owner or operator of a mineral wool production facility.

Incinerator means an enclosed air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases. For the purposes of this subpart, the term ''incinerator'' means ''regenerative thermal oxidizer''.

Melt means raw materials, excluding coke, that are charged into the cupola, heated to a molten state, and discharged to the fiber forming and collection process.

Melt rate means the mass of molten material discharged from a single cupola over a specified time period.

Mineral wool means a fibrous glassy substance made from natural rock (such as basalt), blast furnace slag or other slag, or a mixture of rock and slag. It may be used as a thermal or acoustical insulation material or in the making of other products to provide structural strength, sound absorbency, fire resistance, or other required properties.

New Source means any affected source that commences construction or reconstruction after May 8, 1997 for purposes of determining the applicability of the emissions limits in Rows 1–4 of Table 2. For all other emission limits new source means any affected source that commences construction or reconstruction after November 25, 2011.

Open-top cupola means a cupola that is open to the outside air and operates with an air flow rate that is unrestricted and at low pressure.

PM means, for the purposes of this subpart, emissions of particulate matter that serve as a surrogate for metals (in particulate or volatile form) on the list of hazardous air pollutants in section 112 of the Act, including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium.

Slag means the by-product materials separated from metals during smelting and refining of raw ore.

You means the owner or operator of a mineral wool production facility.

[76 FR 74708, Dec. 1, 2011, as amended at 80 FR 45331, July 29, 2015]

§ 63.1197 Startups and shutdowns.

(a) The provisions set forth in this subpart apply at all times.

(b) You must not shut down items of equipment that are utilized for compliance with this subpart during times when emissions are being, or are otherwise required to be, routed to such items of equipment.

(c) Startup begins when fuels are ignited in the cupola. Startup ends when the cupola produces molten material.

(d) Shutdown begins when the cupola has reached the end of the melting

campaign and is empty. No molten material continues to flow from the cupola during shutdown.

(e) During periods of startups and shutdowns you must operate your cupola according to one of the following methods:

(1) You must keep records showing that your emissions were controlled using air pollution control devices operated at the parameters established by the most recent performance test that showed compliance with the standard; or

(2) You must keep records showing the following:

(i) You used only clean fuels during startup and shutdown; and

(ii) You operate the cupola during startup and shutdown with three percent oxygen over the fuel demand for oxygen.

[80 FR 45331, July 29, 2015]

§§ 63.1198–63.1199 [Reserved]

TABLE 1 TO SUBPART DDD OF PART 63—APPLICABILITY OF GENERAL PROVISIONS (40 CFR PART 63, SUBPART A) TO SUBPART DDD OF PART 63

General provisions citation	Requirement	Applies to subpart DDD?	Explanation
§63.1(a)(1)–(6)	General Applicability	Yes.	
§63.1(a)(7)–(9)		No	[Reserved].
§63.1(a)(10)–(12)		Yes.	
§63.1(b)(1)	Initial Applicability Determination	Yes.	
§63.1(b)(2)		No	[Reserved].
§63.1(b)(3)		Yes.	
§63.1(c)(1)–(2)	Applicability After Standard Established	Yes.	
§63.1(c)(3)–(4)		No	[Reserved].
§63.1(c)(5)–(e)		Yes.	
§63.2	Definitions	Yes.	
§63.3	Units and Abbreviations	Yes.	
§63.4(a)(1)–(2)	Prohibited Activities	Yes.	
§63.4(a)(3)–(5)		No	[Reserved].
§63.4(b)–(c)		Yes.	
§63.5(a)(1)–(b)(2)	Construction/Reconstruction Applicability.	Yes.	
§63.5(b)(3)–(4)		Yes.	
§63.5(b)(5)		No	[Reserved].
§63.5(b)(6)		Yes.	
§63.5(c)		No	[Reserved].
§63.5(d)–(f)		Yes.	
§63.6(a)–(d)		Yes.	
§63.6(e)(1)(i)	General Duty to Minimize Emissions	No	See §63.1180(d) for general duty requirement.
§63.6(e)(1)(ii)	Requirement to Correct Malfunctions As Soon As Possible.	No	§63.1187(b) specifies additional requirements.
§63.6(e)(1)(iii)		Yes.	
§63.6(e)(2)		No	[Reserved].
§63.6(e)(3)	Startup, Shutdown, Malfunction (SSM) Plan.	No	Startups and shutdowns addressed in §63.1197.
§63.6(f)(1)	SSM Exemption	No.	
§63.6(f)(2)–(g)		Yes.	
§63.6(h)(1)	SSM Exemption	No.	
§63.6(h)(2)–(j)		Yes.	
§63.7(a)–(d)	Performance Testing Requirements	Yes.	
§63.7(e)(1)	Conduct of Performance Tests	No	See §63.1180.
§63.7(e)(2)–(f)		Yes.	
§63.7(g)(1)	Data Analysis, Recordkeeping, and Reporting.	Yes.	
§63.7(g)(2)		No	[Reserved].
§63.7(g)(3)–(h)		Yes.	
§63.8(a)–(b)	Monitoring Requirements	Yes.	
§63.8(c)(1)(i)	General Duty to Minimize Emissions and CMS Operation.	No	See §63.1180(e) for general duty requirement.
§63.8(c)(1)(ii)		Yes.	
§63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS.	No.	
§63.8(c)(2)–(d)(2)		Yes.	

General provisions citation	Requirement	Applies to subpart DDD?	Explanation
§63.8(d)(3)	Written Procedures for CMS	Yes, except for last sentence, which refers to SSM plan. SSM plans are not required..	
§63.8(e)–(g)		Yes.	
§63.9(a)	Applicability and General Information	Yes.	
§63.9(b)(1)–(2)	Initial Notifications	Yes.	
§63.9(b)(3)		No	[Reserved].
§63.9(b)(4)–(b)(5)		Yes.	
§63.9(c)–(j)		Yes.	
§63.9(k)		Yes	Only as specified in §63.9(j).
§63.10(a)	Recordkeeping and Reporting Requirements.	Yes.	
§63.10(b)(1)	General Recordkeeping Requirements	Yes.	
§63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns.	No.	
§63.10(b)(2)(ii)	Recordkeeping of Malfunctions	No	See §63.1193(c) for recordkeeping of (ii) occurrence and duration and (iii) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance Records	Yes.	
§63.10(b)(2)(iv)–(v)	Actions Taken to Minimize Emissions During SSM.	No.	
§63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions	Yes.	
§63.10(b)(2)(vii)–(xiv).	Other CMS Requirements	Yes.	
§63.10(b)(3)	Recordkeeping Requirement for Applicability Determinations.	Yes.	
§63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§63.10(c)(7)–(8)	Additional Recordkeeping Requirements for CMS—Identifying Exceedances and Excess Emissions.	Yes.	
§63.10(c)(9)		No	[Reserved].
§63.10(c)(10)–(11)		No	See §63.1192 for recordkeeping of malfunctions.
§63.10(c)(12)–(14)		Yes.	
§63.10(c)(15)	Use of SSM Plan	No.	
§63.10(d)(1)–(4)	General Reporting Requirements	Yes.	
§63.10(d)(5)	SSM Reports	No	See §63.1193(f) for reporting of malfunctions.
§63.10(e)–(f)	Additional CMS Reports Excess Emission/CMS Performance Reports COMS Data Reports Recordkeeping/Reporting Waiver.	Yes.	
§63.11(a)–(b)	Control Device Requirements Applicability Flares.	No	Flares will not be used to comply with the emissions limits.
§63.11(c)	Alternative Work Practice for Monitoring Equipment for Leaks.	Yes.	
§63.11(d)	Alternative Work Practice Standard	Yes.	
§63.11(e)		Yes.	
§63.12	State Authority and Delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes.	
§63.15	Information Availability/Confidentiality	Yes.	
§63.16	Performance Track Provisions	Yes.	

[80 FR 45331, July 29, 2015, as amended at 85 FR 73897, Nov. 19, 2020; 85 FR 84262, Dec. 28, 2020]

TABLE 2 TO SUBPART DDD OF PART 63—EMISSIONS LIMITS AND COMPLIANCE DATES

If your source is a:	And you commenced construction:	Your emission limits are: [1]	And you must comply by: [2]
1. Cupola	On or before May 8, 1997.	0.10 lb PM per ton of melt.	June 2, 2002.
2. Cupola	After May 8, 1997	0.10 lb PM per ton of melt.	June 1, 1999.

If your source is a:	And you commenced construction:	Your emission limits are: [1]	And you must comply by: [2]
3. Cupola	On or before May 8, 1997.	a. 0.10 lb carbon monoxide (CO) per ton of melt,[3] or b. Reduction of uncontrolled CO by at least 99 percent [3].	June 2, 2002.
4. Cupola	After May 8, 1997 but on or before November 25, 2011.	a. 0.10 lb CO per ton of melt,[3] or b. Reduction of uncontrolled CO by at least 99 percent.[3]	June 1, 1999.
5. Closed-top cupola	On or before November 25, 2011.	3.4 lb of carbonyl sulfide (COS) per ton melt.	July 30, 2018.
6. Closed-top cupola	After November 25, 2011.	0.062 lb of COS per ton melt.	July 29, 2015.[4]
7. Open-top cupola	On or before November 25, 2011.	6.8 lb of COS per ton melt.	July 30, 2018.
8. Open-top cupola	After November 25, 2011.	3.2 lb of COS per ton melt.	July 29, 2015.[4]
9. Cupola using slag as a raw material.	On or before November 25, 2011.	0.16 lb of hydrogen fluoride (HF) per ton melt. 0.44 lb of hydrogen chloride (HCl) per ton melt.	July 30, 2018.
10. Cupola using slag as a raw material.	After November 25, 2011.	0.015 lb of HF per ton melt. 0.012 lb of HCl per ton melt.	July 29, 2015.[4]
11. Cupola not using slag as a raw material.	On or before November 25, 2011.	0.13 lb of HF per ton melt. 0.43 lb of HCl per ton melt.	July 30, 2018.
12. Cupola not using slag as a raw material.	After November 25, 2011.	0.018 lb of HF per ton melt. 0.015 lb of HCl per ton melt.	July 29, 2015.[4]
17. Curing oven	On or before May 8, 1997.	a. 0.06 lb of formaldehyde per ton of melt,[3] or b. Reduction of uncontrolled formaldehyde by at least 80 percent.[3]	June 2, 2002.
18. Curing oven	After May 8, 1997 but before November 25, 2011.	a. 0.06 lb of formaldehyde per ton of melt,[3] or b. Reduction of uncontrolled formaldehyde by at least 80 percent.[3]	June 1, 1999.
19. Combined drum collection/curing operation.	On or before November 25, 2011.	0.17 lb of formaldehyde per ton of melt. 0.28 lb of methanol per ton melt. 0.85 lb of phenol per ton melt.	July 30, 2018.

If your source is a:	And you commenced construction:	Your emission limits are: [1]	And you must comply by: [2]
20. Combined drum collection/curing operation.	After November 25, 2011.	0.17 lb of formaldehyde per ton of melt. 0.28 lb of methanol per ton melt. 0.85 lb of phenol per ton melt.	July 29, 2015.[4]
21. Combined horizontal collection/curing operation.	On or before November 25, 2011.	0.63 lb of formaldehyde per ton of melt. 0.049 lb of methanol per ton melt. 0.12 lb of phenol per ton melt.	July 30, 2018.
22. Combined horizontal collection/curing operation.	After November 25, 2011.	0.63 lb of formaldehyde per ton of melt. 0.049 lb of methanol per ton melt. 0.12 lb of phenol per ton melt.	July 29, 2015.[4]
23. Combined vertical collection/curing operation.	On or before November 25, 2011.	2.4 lb of formaldehyde per ton melt. 0.92 lb of methanol per ton melt. 0.71 lb of phenol per ton melt.	July 30, 2018.
24. Combined vertical collection/curing operation.	After November 25, 2011.	2.4 lb of formaldehyde per ton melt. 0.92 lb of methanol per ton melt. 0.71 lb of phenol per ton melt.	July 29, 2015.[4]

[1] The numeric emissions limits do not apply during startup and shutdown.
[2] Existing sources must demonstrate compliance by the compliance dates specified in this table. New sources have 180 days after the applicable compliance date to demonstrate compliance.
[3] This emissions limit does not apply after July 30, 2018.
[4] Or upon initial startup, whichever is later.

[80 FR 45333, July 29, 2015]

APPENDIX A TO SUBPART DDD OF PART 63—FREE FORMALDEHYDE ANALYSIS OF INSULATION RESINS BY THE HYDROXYLAMINE HYDROCHLORIDE METHOD

1. Scope

The method in this appendix was specifically developed for water-soluble phenolic resins that have a relatively high free-formaldehyde (FF) content such as insulation resins. It may also be suitable for other phenolic resins, especially those with a high FF content.

2. Principle

2.1 a. The basis for this method is the titration of the hydrochloric acid that is liberated when hydroxylamine hydrochloride reacts with formaldehyde to form formaldoxine:

$$HCHO + NH_2OH{:}HCl \rightarrow CH_2{:}NOH + H_2O + HCl$$

b. Free formaldehyde in phenolic resins is present as monomeric formaldehyde, hemiformals, polyoxymethylene hemiformals, and polyoxymethylene glycols. Monomeric formaldehyde and hemiformals react rapidly with hydroxylamine hydrochloride, but the polymeric forms of formaldehyde must hydrolyze to the monomeric state before they can react. The greater the concentration of free formaldehyde in a resin, the more of that formaldehyde will be in the polymeric form. The hydrolysis of these polymers is catalyzed by hydrogen ions.

2.2 The resin sample being analyzed must contain enough free formaldehyde so that the initial reaction with hydroxylamine hydrochloride will produce sufficient hydrogen

ions to catalyze the depolymerization of the polymeric formaldehyde within the time limits of the test method. The sample should contain approximately 0.3 grams (g) free formaldehyde to ensure complete reaction within 5 minutes.

3. Apparatus

3.1 Balance, readable to 0.01 g or better.
3.2 pH meter, standardized to pH 4.0 with pH 4.0 buffer and pH 7 with pH 7.0 buffer.
3.3 50-mL burette for 1.0 N sodium hydroxide.
3.4 Magnetic stirrer and stir bars.
3.5 250-mL beaker.
3.6 50-mL graduated cylinder.
3.7 100-mL graduated cylinder.
3.8 Timer.

4. Reagents

4.1 Standardized 1.0 N sodium hydroxide solution.
4.2 Hydroxylamine hydrochloride solution, 100 grams per liter, pH adjusted to 4.00.
4.3 Hydrochloric acid solution, 1.0 N and 0.1 N.
4.4 Sodium hydroxide solution, 0.1 N.
4.5 50/50 v/v mixture of distilled water and methyl alcohol.

5. Procedure

5.1 Determine the sample size as follows:
a. If the expected FF is greater than 2 percent, go to Part A in 5.1.c to determine sample size.
b. If the expected FF is less than 2 percent, go to Part B in 5.1.d to determine sample size.
c. Part A: Expected FF ≥2 percent.
Grams resin = 60/expected percent FF
I. The following table shows example levels:

Expected percent free formaldehyde	Sample size, grams
2	30.0
5	12.0
8	7.5
10	6.0
12	5.0
15	4.0

ii. It is very important to the accuracy of the results that the sample size be chosen correctly. If the milliliters of titrant are less than 15 mL or greater than 30 mL, reestimate the needed sample size and repeat the tests.
d. Part B: Expected FF <2 percent
Grams resin = 30/expected percent FF
I. The following table shows example levels:

Expected percent free formaldehyde	Sample size, grams
2	15
1	30
0.5	60

ii. If the milliliters of titrant are less than 5 mL or greater than 30 mL, reestimate the needed sample size and repeat the tests.
5.2 Weigh the resin sample to the nearest 0.01 grams into a 250-mL beaker. Record sample weight.
5.3 Add 100 mL of the methanol/water mixture and stir on a magnetic stirrer. Confirm that the resin has dissolved.
5.4 Adjust the resin/solvent solution to pH 4.0, using the prestandardized pH meter, 1.0 N hydrochloric acid, 0.1 N hydrochloric acid, and 0.1 N sodium hydroxide.
5.5 Add 50 mL of the hydroxylamine hydrochloride solution, measured with a graduated cylinder. Start the timer.
5.6 Stir for 5 minutes. Titrate to pH 4.0 with standardized 1.0 N sodium hydroxide. Record the milliliters of titrant and the normality.

6. Calculations

$$\% \text{ FF} = \frac{\text{mL sodium hydroxide} \times \text{normality} \times 3.003}{\text{grams of sample}}$$

7. Method Precision and Accuracy

Test values should conform to the following statistical precision:
Variance = 0.005
Standard deviation = 0.07
95% Confidence Interval, for a single determination = 0.2

8. Author

This method was prepared by K.K. Tutin and M.L. Foster, Tacoma R&D Laboratory, Georgia-Pacific Resins, Inc. (Principle written by R. R. Conner.)

9. References

9.1 GPAM 2221.2.
9.2 PR&C TM 2.035.

9.3 Project Report, Comparison of Free Formaldehyde Procedures, January 1990, K. Tutin.