§ 63.11088 What requirements must I meet for gasoline loading racks if my facility is a bulk gasoline terminal, pipeline breakout station, or pipeline pumping station?

(a) You must meet each emission limit and management practice in Table 2 to this subpart that applies to you.

(b) As an alternative for railcar cargo tanks to the requirements specified in Table 2 to this subpart, you may comply with the requirements specified in § 63.422(e).

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11083.

(d) You must comply with the applicable testing and monitoring requirements specified in § 63.11092.

(e) You must submit the applicable notifications as required under § 63.11093.

(f) You must keep records and submit reports as specified in §§ 63.11094 and 63.11095.

§ 63.11089 What requirements must I meet for equipment leak inspections if my facility is a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station?

(a) Each owner or operator of a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service, as defined in § 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable.

(b) A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.

(c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section.

(d) Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semi-annual report specified in § 63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed.

(e) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11083.

(f) You must submit the applicable notifications as required under § 63.11093.

(g) You must keep records and submit reports as specified in §§ 63.11094 and 63.11095.

TESTING AND MONITORING REQUIREMENTS

§ 63.11092 What testing and monitoring requirements must I meet?

(a) Each owner or operator of a bulk gasoline terminal subject to the emission standard in item 1(b) of Table 2 to this subpart must comply with the requirements in paragraphs (a) through (d) of this section.

(1) Conduct a performance test on the vapor processing and collection systems according to either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) Use the test methods and procedures in § 60.503 of this chapter, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under § 60.503(b) of this chapter.

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) If you are operating your gasoline loading rack in compliance with an enforceable State, local, or tribal rule or permit that requires your loading rack to meet an emission limit of 80 milligrams (mg), or less, per liter of gasoline loaded (mg/l), you may submit a statement by a responsible official of your facility certifying the compliance status of your loading rack in lieu of the test required under paragraph (a)(1) of this section.
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(3) If you have conducted performance testing on the vapor processing and collection systems within 5 years prior to January 10, 2008, and the test is for the affected facility and is representative of current or anticipated operating processes and conditions, you may submit the results of such testing in lieu of the test required under paragraph (a)(1) of this section, provided the testing was conducted using the test methods and procedures in § 60.503 of this chapter. Should the Administrator deem the prior test data unacceptable, the facility is still required to meet the requirement to conduct an initial performance test within 180 days of the compliance date specified in § 63.11083; thus, previous test reports should be submitted as soon as possible after January 10, 2008.

(4) The performance test requirements of § 63.11092(a) do not apply to flares defined in § 63.11100 and meeting the flare requirements in § 63.11(b). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in § 63.11(b) and 40 CFR 60.503(a), (b), and (d).

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer’s specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processor systems, as specified in paragraphs (b)(1) through (5) of this section. For each facility conducting a performance test under paragraph (a)(1) of this section, and for each facility utilizing the provisions of paragraphs (a)(2) or (a)(3) of this section, the CMS must be installed by January 10, 2011.

(1) For each performance test conducted under paragraph (a)(1) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the procedures specified in paragraphs (b)(1)(i) through (iv) of this section. During the performance test, continuously record the operating parameter as specified under paragraphs (b)(1)(i) through (iv) of this section.

(i) Where a carbon adsorption system is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(i)(A) or (B) of this section.

(A) A continuous emissions monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust airstream.

(B) As an alternative to paragraph (b)(1)(i)(A) of this section, you may choose to meet the requirements listed in paragraph (b)(1)(i)(B)(1) and (2) of this section.

(i) Carbon adsorption devices shall be monitored as specified in paragraphs (b)(1)(i)(B)(1)(i), (ii), and (iii) of this section.

(ii) Vacuum level shall be monitored using a pressure transmitter installed in the vacuum pump suction line, with the measurements displayed on a gauge that can be visually observed. Each carbon bed shall be observed during one complete regeneration cycle on each day of operation of the loading rack to determine the maximum vacuum level achieved.

(iii) Conduct monthly measurements of the carbon bed outlet volatile organic compounds (VOC) concentration over the last 5 minutes of an adsorption cycle for each carbon bed, documenting the highest measured VOC concentration. Measurements shall be made using a portable analyzer, or a permanently mounted analyzer, in accordance with 40 CFR part 60, Appendix A–7, EPA Method 21 for open-ended lines.

(2) Develop and submit to the Administrator a monitoring and inspection plan that describes the owner or operator’s approach for meeting the requirements in paragraphs (b)(1)(i)(B)(2)(i) through (v) of this section.

(i) The lowest maximum required vacuum level and duration needed to assure regeneration of the carbon beds shall be determined by an engineering
analysis or from the manufacturer’s recommendation and shall be documented in the monitoring and inspection plan.

(ii) The owner or operator shall verify, during each day of operation of the loading rack, the proper valve sequencing, cycle time, gasoline flow, purge air flow, and operating temperatures. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.

(iii) The owner or operator shall perform semi-annual preventive maintenance inspections of the carbon adsorption system, including the automated alarm or shutdown system for those units so equipped, according to the recommendations of the manufacturer of the system.

(iv) The monitoring plan developed under paragraph (2) of this section shall specify conditions that would be considered malfunctions of the carbon adsorption system during the inspections or automated monitoring performed under paragraphs (b)(1)(i)(B)(2)(i) through (iiii) of this section, describe specific corrective actions that will be taken to correct any malfunction, and define what the owner or operator would consider to be a timely repair for each potential malfunction.

(v) The owner or operator shall document the maximum vacuum level observed on each carbon bed from each daily inspection and the maximum VOC concentration observed from each carbon bed on each monthly inspection as well as any system malfunction, as defined in the monitoring and inspection plan, and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.

(ii) Where a refrigeration condenser system is used, a continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed immediately downstream from the outlet to the condenser section. Alternatively, a CEMS capable of measuring organic compound concentration may be installed in the exhaust air stream.

(iii) Where a thermal oxidation system other than a flare is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(iiii)(A) or (B) of this section.

(A) A CPMS capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(B) As an alternative to paragraph (b)(1)(iiii)(A) of this section, you may choose to meet the requirements listed in paragraphs (b)(1)(iiii)(B)(1) and (2) of this section.

(1) The presence of a thermal oxidation system pilot flame shall be monitored using a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, installed in proximity of the pilot light, to indicate the presence of a flame. The heat-sensing device shall send a positive parameter value to indicate that the pilot flame is on, or a negative parameter value to indicate that the pilot flame is off.

(2) Develop and submit to the Administrator a monitoring and inspection plan that describes the owner or operator’s approach for meeting the requirements in paragraphs (b)(1)(iiii)(B)(2)(i) through (v) of this section.

(i) The thermal oxidation system shall be equipped to automatically prevent gasoline loading operations from beginning at any time that the pilot flame is absent.

(ii) The owner or operator shall verify, during each day of operation of the loading rack, the proper operation of the assist-air blower and the vapor line valve. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.
(iii) The owner or operator shall perform semi-annual preventive maintenance inspections of the thermal oxidation system, including the automated alarm or shutdown system for those units so equipped, according to the recommendations of the manufacturer of the system.

(iv) The monitoring plan developed under paragraph (2) of this section shall specify conditions that would be considered malfunctions of the thermal oxidation system during the inspections or automated monitoring performed under paragraphs (b)(1)(iii)(B)(2)(ii) and (iii) of this section, describe specific corrective actions that will be taken to correct any malfunction, and define what the owner or operator would consider to be a timely repair for each potential malfunction.

(v) The owner or operator shall document any system malfunction, as defined in the monitoring and inspection plan, and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.

(iv) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in paragraphs (b)(1)(i) through (iii) of this section will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in §63.11088(a).

(4) Provide for the Administrator's approval the rationale for the selected operating parameter value, monitoring frequency, and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in §63.11088(a).

(5) If you have chosen to comply with the performance testing alternatives provided under paragraph (a)(2) or paragraph (a)(3) of this section, the monitored operating parameter value may be determined according to the provisions in paragraph (b)(5)(i) or paragraph (b)(5)(ii) of this section.

(i) Monitor an operating parameter that has been approved by the Administrator and is specified in your facility's current enforceable operating permit. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section.

(ii) Determine an operating parameter value based on engineering assessment and the manufacturer's recommendation and submit the information specified in paragraph (b)(4) of this section for approval by the Administrator. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section.

(c) For performance tests performed after the initial test required under paragraph (a) of this section, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.

(d) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in paragraphs (d)(1) through (4) of this section.

(1) Operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the operating parameter value for the parameters described in paragraph (b)(1) of this section.
(2) In cases where an alternative parameter pursuant to paragraph (b)(1)(iv) or paragraph (b)(5)(i) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value.

(3) Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as appropriate, shall constitute a violation of the emission standard in §63.11088(a), except as specified in paragraph (d)(4) of this section.

(4) For the monitoring and inspection, as required under paragraphs (b)(1)(i)(B) and (b)(1)(ii)(B) of this section, malfunctions that are discovered shall not constitute a violation of the emission standard in §63.11088(a) if corrective actions as described in the monitoring and inspection plan are followed. The owner or operator must:

(i) Initiate corrective action to determine the cause of the problem within 1 hour;

(ii) Initiate corrective action to fix the problem within 24 hours;

(iii) Complete all corrective actions needed to fix the problem as soon as practicable consistent with good air pollution control practices for minimizing emissions;

(iv) Minimize periods of start-up, shutdown, or malfunction;

(v) Take any necessary corrective actions to restore normal operation and prevent the recurrence of the cause of the problem.

(e) Each owner or operator subject to the emission standard in §63.11087 for gasoline storage tanks shall comply with the requirements in paragraphs (e)(1) through (3) of this section.

(1) If your gasoline storage tank is equipped with an internal floating roof, you must perform inspections of the floating roof system according to the requirements of §60.113(b) if you are complying with option 2(b) in Table 1 to this subpart, or according to the requirements of §63.1063(c)(2) if you are complying with option 2(d) in Table 1 to this subpart.

(3) If your gasoline storage tank is equipped with a closed vent system and control device, you must conduct a performance test and determine a monitored operating parameter value in accordance with the requirements in paragraphs (a) through (d) of this section, except that the applicable level of control specified in paragraph (a)(2) of this section shall be a 95-percent reduction in inlet total organic compounds (TOC) levels rather than 80 mg/l of gasoline loaded.

(f) The annual certification test for gasoline cargo tanks shall consist of the test methods specified in paragraphs (f)(1) or (f)(2) of this section. Affected facilities that are subject to subpart XX of 40 CFR part 60 may elect, after notification to the subpart XX delegated authority, to comply with paragraphs (f)(1) and (2) of this section.

(1) EPA Method 27, Appendix A–8, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P) for the pressure test shall be 460 millimeters (mm) of water (18 inches of water), gauge. The initial vacuum (V) for the vacuum test shall be 150 mm of water (6 inches of water), gauge. The maximum allowable pressure and vacuum changes (Dp, Dv) for all affected gasoline cargo tanks is 3 inches of water, or less, in 5 minutes.

(2) Railcar bubble leak test procedures. As an alternative to the annual certification test required under paragraph (1) of this section for certification leakage testing of gasoline cargo tanks, the owner or operator may comply with paragraphs (f)(2)(i) and (ii) of this section for railcar cargo tanks, provided the railcar cargo tank meets the requirement in paragraph (f)(2)(iii) of this section.

(i) Comply with the requirements of 49 CFR 173.31(d), 49 CFR 179.7, 49 CFR 180.509, and 49 CFR 180.511 for the periodic testing of railcar cargo tanks.

(ii) The leakage pressure test procedure required under 49 CFR 180.509(j)
and used to show no indication of leakage under 49 CFR 180.511(f) shall be ASTM E 515–95, BS EN 1593:1999, or another bubble leak test procedure meeting the requirements in 49 CFR 179.7, 49 CFR 180.505, and 49 CFR 180.509.

(iii) The alternative requirements in this paragraph (f)(2) may not be used for any railcar cargo tank that collects gasoline vapors from a vapor balance system and the system complies with a Federal, State, local, or tribal rule or permit. A vapor balance system is a piping and collection system designed to collect gasoline vapors displaced from a storage vessel, barge, or other container being loaded, and routes the displaced gasoline vapors into the railcar cargo tank from which liquid gasoline is being unloaded.

(g) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator, based on representative performance (i.e., performance based on normal operating conditions) of the affected source. 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.

§ 63.11094 What are my recordkeeping requirements?

(a) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as specified in paragraphs (b)(1) through (3) of this section.

(1) Annual certification testing performed under §63.11092(f)(1) and periodic railcar bubble leak testing performed under §63.11092(f)(2).

(2) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) Name of test: Annual Certification Test—Method 27 or Periodic Railcar Bubble Leak Test Procedure.

(ii) Cargo tank owner’s name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) Witnessing inspector, if any: Name, signature, and affiliation.

(vii) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.