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Rule 462
Organic Liquid Loading

(A) General

(1) Purpose

(a) This rule is intended to control emissions of Volatile Organic Compounds (VOC) from Facilities that load Organic Liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car.

(2) Applicability

(a) The provisions of this rule shall apply to all Organic Liquid loading facilities that are defined as Class "A", "B" or "C" facilities pursuant to Section (B) of this rule.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) "Background" - The ambient concentration of organic vapors in the air measured according to the EPA Method 21.

(2) "Class "A" Facility" - Any Facility which loads 20,000 gallons (75,700 liters) or more on any one day of Organic Liquids into any tank truck, trailer, or railroad tank car.

(3) "Class "B" Facility" - Any Facility which:

(a) was constructed before January 9, 1976 and loads more than 4,000 gallons (15,140 liters) but not more than 20,000 gallons (75,700 liters) of Gasoline on any one day into any tank truck, trailer, or railroad tank car.

(b) was constructed before January 9, 1976 and loads not more than 4,000 gallons (15,140 liters) of Gasoline on any one day, but more than 500,000 gallons (1,892,500 liters) of Gasoline in any one calendar year, into any tank truck, trailer, or railroad tank car.

(c) was constructed after January 9, 1976 and loads not more than 20,000 gallons (75,700 liters) of Gasoline on any one day into a tank truck, trailer or railroad tank car.

(4) "Class "C" Facility" - Any Facility existing before January 9, 1976 which loads not more than 4,000 gallons (15,140 liters) of Gasoline on any one day and not more than 500,000 gallons in any one calendar year, into any tank truck, trailer, or railroad tank car.

(5) "Exempt Compounds" - Those compounds listed in 40 CFR 51.100(s).

(6) "Facility" - An Organic Liquid or Gasoline loading rack or set of such racks that load Organic Liquid or Gasoline into tanks, trailers or railroad cars, which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person or persons under common control.

(7) "Facility Vapor Leak" - The escape of organic vapors from a source other than a tank truck, trailer or railroad tank car in excess of 3,000 ppm as methane above Background when measured according to EPA Method 21. A Facility Vapor Leak source does not include liquid spillage or condensate resulting from "Liquid Leaks".

(8) "Gasoline" - Any petroleum distillate or petroleum distillate/alcohol blend or alcohol, except any liquefied petroleum gas (LPG), which has a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions and is used as a fuel for internal combustion engines.

(9) "Liquid Leak" - The dripping of liquid organic compounds at a rate in excess of three drops per minute from any single leak source other than the liquid fill line and vapor line of disconnect operations.

(10) "Liquid Leak from Disconnect Operations" - Defined as:

(a) more than two milliliters of liquid drainage per disconnect from a top loading operation; or

(b) more than ten milliliters of liquid drainage per disconnect from a bottom loading operation.

Such liquid drainage shall be determined by computing the average drainage from three consecutive disconnects at any one loading arm.

(11) "Organic Liquid" - Any liquid compound containing the element carbon that has a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions excluding liquefied petroleum gases (LPG), methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds.

(12) "Submerged Fill Loading" - A type of Organic Liquid loading operation where the discharge opening is completely submerged when the liquid level above the bottom of the Transport Vessel is eight centimeters (3.2 inches) or higher.

(13) "Switch Loading" - The transfer of Organic Liquids with a vapor pressure of less than 1.5 psia (77.5 mm Hg) under actual loading conditions into any tank truck, trailer or railroad tank car that was loaded with an Organic Liquid with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater, immediately preceding the transfer.

(14) "Transfer Equipment" - Shall consist of all the components of the liquid loading line between the liquid pump and the transporting vessel, and the vapor return line from the transporting vessel to the storage tank, or to and including the Vapor Recovery System.

(15) "Transport Vessel" - A tank truck, trailer or railroad tank car that is equipped to receive and transport Organic Liquid.

(16) "Transport Vessel Vapor Leak" - The escape of organic vapors from a Transport Vessel in excess of 100 percent of the lower explosive limit when monitored according to the CARB Vapor Recovery Test Procedure TP 204.3 – *Determination of Leak(s).*

(17) "Vapor Disposal System" - The control equipment designed and operated to reduce VOC emissions into the atmosphere.

(18) "Vapor Recovery System" - A vapor gathering system which is capable of collecting and returning discharged hydrocarbon vapors and gases during loading of Organic Liquids into Transport Vessels, back to a stationary storage container, or into an enclosed process system.

(19) "Volatile Organic Compound (VOC) - Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds.

(C) Requirements

(1) Loading Requirements at Class "A" Facilities

(a) Each Class "A" Facility shall be equipped with a CARB certified Vapor Recovery System and/or disposal system.

(b) Each vapor recovery and/or disposal system at a Class "A" Facility shall be equipped with a continuous monitoring system (CMS) that is installed, operated, and maintained according to the manufacturer's specifications and is approved by the Executive Officer or designee.

(c) The transfer of Organic Liquids shall be accomplished in such a manner that the displaced organic vapors and air are vented, under design conditions, to the vapor recovery and/or disposal system.

(d) Each vapor recovery and/or disposal system shall reduce the emissions of VOCs to 0.08 pound or less per thousand gallons (10 grams per 1,000 liters) of Organic Liquid transferred.

(e) Any Class "A" Facility transferring Gasoline into any truck, trailer, or railroad tank car shall be designed and operated for bottom loading only.

(f) The Transfer Equipment shall be operated and maintained so that there are no overfills, Facility Vapor Leaks, Liquid Leaks, or Liquid Leaks from disconnect operations.

(g) The backpressure in the vapor recovery and/or disposal system shall not exceed 18 inches of water column pressure.

(2) Loading Requirements at Class "B" Facilities

(a) Each Class "B" Facility shall be equipped with a CARB certified Vapor Recovery System.

(b) Such system shall be designed and operated to recover at least 90 percent of the displaced vapors.

(c) The backpressure in the Vapor Recovery System shall not exceed 18 inches of water column pressure.

(d) Any Class "B" Facility transferring Gasoline into any truck, trailer, or railroad tank car, shall be designed for bottom loading only.

(e) The Transfer Equipment shall be operated and maintained so that there are no overfills, Facility Vapor Leaks, Liquid Leaks, or Liquid Leaks from disconnect operations.

(3) Loading Requirements at Class "C" Facilities

(a) Each Class "C" Facility shall be equipped and operated for Submerged Fill Loading or bottom fill loading. All Gasoline or equivalent vapor pressure Organic Liquids shall be transferred in this manner.

(b) The Transfer Equipment shall be operated and maintained so that there are no overfills, Liquid Leaks, or Liquid Leak from disconnect operations.

(4) Loading Requirements for Transport Vessels

(a) No person shall allow loading or unloading of Organic Liquid or other use or operation of any Transport Vessel unless the vessel has a valid certification of vapor integrity as defined by the applicable Air Resources Board Certification and Test Procedures, pursuant to Health and Safety Code Section 41962(g).

(b) Transport Vessel vapor leaks from dome covers, pressure vacuum vents or other sources shall be determined in accordance with the CARB Vapor Recovery Test Procedure TP-204.3 – *Determination of Leak(s).*

(c) The Transport Vessel shall be operated so that there are no Transport Vessel Vapor Leaks or Liquid Leaks.

(5) Switch Loading

(a) Uncontrolled Switch Loading is prohibited except at Class "C" facilities.

(6) Leak Inspection Requirements

(a) The owner and operator of any Class "A", "B", or "C" Facility shall be required to perform an inspection of the vapor collection system, the Vapor Disposal System, and each loading rack handling Organic Liquids, for Facility Vapor Leaks or Liquid Leaks of VOC's on one of the following schedules:

(i) Annual inspection using EPA Method 21 if monthly sight, sound, and smell are used as detection methods; or
(ii) Quarterly inspection if EPA Method 21 is used to monitor for Facility Vapor Leaks.

(b) Each detection of a leak shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement component shall be reinspected the first time the component is in operation after the repair or replacement.

(7) CARB Certification

(a) Within 30 calendar days after completing construction of any new or modified vapor recovery and/or disposal system, the owner/operator of a Class "A" or Class "B" facility shall submit a written request to CARB for certification of the new or modified vapor recovery and/or disposal system.

(D) Compliance Determination/Test Methods

(1) Compliance with the emission limit of organic vapors as specified in (C)(1)(d) shall be determined according to EPA Method 25A, 25B or SCAQMD Method 501.1, as applicable.

(2) Continuous Monitoring System required pursuant to (C)(1)(b) shall be in compliance with Code of Federal Regulation Title 40 Part 63 Subpart R Section 63.427 and Code of Federal Regulations Title 40 Part 60 Appendix B, as applicable.

(3) Compliance with the vapor recovery efficiency as specified in (C)(2)(b) shall be determined according to CARB Vapor Recovery Certification Procedure CP-202 – Certification Procedure for Vapor Recovery Systems of Bulk Plants.

(4) Determination of Facility Vapor Leaks as defined in (B)(7) shall be conducted according to EPA Method 21.

(5) Any other alternative test method approved in writing by the Executive Officer, CARB, and USEPA may be used only when none of the test methods identified in this section are applicable.

(6) When more than one test method or set of test methods are specified for any testing, a violation of any requirements of this rule established by any one of the specified test methods or set of methods shall constitute a violation of the rule.

(E) Recordkeeping

(1) The owner and operator of any Class "A", "B", or "C" Facility, in order to verify the classification of such Facility, shall maintain a daily log of the throughput and a summary of the throughput for the calendar year to date, of the liquid organic compounds subject to the provisions of this rule. A log showing daily compliance shall suffice to satisfy this requirement.

(2) The owner and operator of any Class "A", "B", or "C" Facility shall maintain records for verification of compliance with the requirements in paragraph (C)(6). The records shall include, but are not limited to, inspection dates, description of leaks detected, repair/replacement dates, and reinspection dates.

(3) All records shall be maintained at the Facility for at least two years and shall be available to the Executive Officer or designee upon request.

(F) Distribution of Responsibilities

(1) The owner and operator of any Class "A", "B", or "C" Facility shall be responsible and liable for complying with the provisions of paragraphs (C)(1), (C)(2), (C)(3), and (C)(6) and sections (D) and (E) of this rule, and for maintaining the equipment at the Facility in such condition that it can comply with the requirements of this rule if properly operated. If employees of the owner or operator of the Facility supervise or affect the transfer operation, the owner or operator of the Facility shall be responsible for ensuring that the transfer operation complies with all requirements of this rule and that the Transfer Equipment is properly operated.

(2) The owner, operator, and driver of a Transport Vessel shall be responsible and liable for complying with paragraphs (C)(4) and (C)(5) of this rule.

(G) Exemptions

(1) The provisions of subparagraphs (C)(1)(f), (C)(2)(e) and (C)(3)(b) shall not apply to components found in violation of Facility Vapor Leaks or Liquid Leaks either of which is detected and recorded originally by the owner or operator, provided

the repair or replacement of applicable equipment is completed within the specified period as given in subparagraph (C)(6)(b).

(2) The provisions of subparagraphs (C)(1)(a) and (C)(1)(b) shall not apply to vapor recovery and/or disposal systems which vent displaced hydrocarbon vapors to an adjacent refinery flare or other combustion device that receives gaseous streams from other refinery sources.

[SIP: See AV Full SIP Table at https://avaqmd.ca.gov/rules-plans]

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