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RULE 462
Organic Liquid Loading

(A) General Description

(1) Purpose:

(a) To control emissions of Volatile Organic Compounds (VOC) and toxic compounds from facilities that transport and load organic liquids into tanks, including Motor Vehicle fuel tanks, tank trucks, trailers or railroad tank cars.

(2) Applicability:

(a) The provisions of this rule shall apply to all Class "A" or "B" Facilities, Retail and non-retail service stations or any other facility where Organic Liquids are stored or transferred.

(3) Severability:

(a) If any portion of this rule shall be found to be unenforceable, such finding shall have no affect on the enforceability of the remaining portions of the rule, which shall continue to be in full force and effect.

(B) Definitions

The definitions contained in District Rule 102 – *Definition of Terms*, shall apply unless a term is otherwise defined herein:

(1) "Class A Facility" – Any Organic Liquid Loading Facility loading 5,000,000 gallons (18,925,000 liters) or more per year and/or 20,000 gallons (73,700 liters) or more on any day of Organic Liquids with a True Vapor Pressure, determined at actual storage conditions, of 77.5 mm (1.5 psia) or greater into any tank truck, trailer, or railroad tank car.

(2) "Class B Facility" – Any Organic Liquid Loading Facility loading less than 5,000,000 gallons (18,925,000 liters) per year. with a True Vapor Pressure, determined at actual storage conditions, of 77.5 mm (1.5 psia) or greater into any tank truck, trailer, or railroad tank car.

(3) "Vapor Tight" – means the detection of less than 3,000 ppm, as methane, using an appropriate hydrocarbon analyzer when sampling is performed according to the procedures specified in EPA Method 21

(C) Requirements

(1) Loading Requirements at Class "A" Facilities

(a) Each Class A Facility loading Organic Liquids shall be equipped with:

(i) A CARB Certified Vapor Recovery and/or disposal system.

(b) The loading 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.

(c) 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.

(d) The backpressure in the Vapor Recovery and/or disposal system shall not exceed 18 inches of water column pressure.

(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 maintained Vapor Tight and Liquid Tight, and operated so that there are no overfills.

(g) Tanker truck liquid loading hoses and vapor return hoses shall be capped, plugged, or have a secondary valve closed whenever the hoses are not in active use to maintain equipment in a Vapor Tight and Liquid Tight condition.

(2) Loading Requirements at Class "B" Facilities

(a) Each Class B Facility loading Organic Liquids shall be equipped with:

(i) A CARB Certified Vapor Recovery and/or disposal system with a Vapor Recovery Efficiency of 95 percent (95%).

a. The backpressure in the Vapor Recovery and/or disposal system shall not exceed 18 inches of water column pressure.

(ii) A Submerged Fill Loading or bottom fill loading system. All Gasoline or equivalent vapor pressure Organic Liquids shall be transferred in this manner.

(iii) A pressure vacuum valve on the aboveground stationary storage tank with a minimum pressure valve setting of eight (8) ounces per square inch, provided that such setting will not exceed the tank's maximum pressure rating. This requirement does not pertain to Floating Roof Tanks.

(b) 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.

(D) Additional Requirements

(1) Other agency requirements - The Vapor Recovery Systems used to comply with the provisions of this Rule shall also comply with all safety, fire, weights and measures, and other applicable codes and/or regulations, including those listed in the California Health and Safety Code Sections 41950 - 41974.

(2) Vapor Tight and Liquid Tight - All of the components of the facility including but not limited to tanks, flanges, seals, pipes, pumps, valves, meters, connectors, shall be maintained Vapor Tight and Liquid Tight and operated so as to prevent excess Organic Liquid drainage during transfer, storage and handling operations.

(3) Organic Liquid Transport

(a) A person shall not allow loading or unloading of Organic Liquid, or other use or operation of any designated transporting 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(9) and the California Administrative Code Title 17, Section 94004.

(b) Vapor leaks from dome covers, pressure vacuum vents or other sources shall be determined in accordance with EPA Method 21.

(4) Switch Loading

Uncontrolled Switch Loading is prohibited except at Class B Facilities where:

(a) Any vapors vented to the atmosphere do not at any point during the transfer exceed 10,000 ppmv, measured as equivalent methane, with a portable hydrocarbon analyzer in accordance with EPA Method 21, or

(b) Emissions are controlled by a Vapor Recovery System.

(5) Leak Inspection Requirements

(a) The Owner/Operator of any Class A or B, 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 volatile organic compounds on one of the following schedules:

(i) Monthly if sight, sound, and smell are used as detection methods.

a. If leak inspections are conducted monthly by sight, sound and smell, an organic vapor analyzer (OVA) must be used to conduct checks every six months.

(ii) Quarterly if an OVA is used to monitor for facility vapor leaks.

(b) Each detection of a leak shall be repaired or replaced within 72 hours. The repaired or replaced component shall be reinspected the first time the component is in operation after the repair or replacement.

(6) Distribution of Responsibilities

(a) The Owner/Operator of an Organic Liquid Loading Facility is responsible and liable for complying with the provisions 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/Operator of the facility supervise or otherwise facilitate the transfer operation, the Owner/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.

(b) The Owner/Operator, or driver of a tank truck, trailer, or railroad tank car is responsible for complying with Subsections (D)(2) and (D)(3) of this rule.

(E) Exemptions

(1) The provisions of subparagraphs (C)(1)(e) and (C)(2)(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/Operator, provided the repair or replacement of applicable equipment is completed within the specified period as given in subparagraph (D)(5)(b).

(F) Record Keeping and Reporting

(1) Any facility subject to this rule shall, as a minimum, maintain the following records:

(a) The Owner/Operator shall maintain a log of all inspections, repairs, description of leaks, and maintenance on equipment subject to this rule. Such logs or records shall be maintained at the facility for at least 2 years (5 years for Title V facilities and sources subject to MACT standards) and shall be made available to the APCO upon request.

(b) The Owner/Operator of a Class A or Class B Facility shall prepare a log demonstrating:

(i) Daily Throughput.
(ii) Monthly Throughput Summary - for a rolling twelve month period.
(iii) Average stored volume over the 24 hour period (midnight to midnight).
(iv) Daily storage and transfer temperatures of the organic liquid.
(v) Results of leak inspection checks.
(vi) Stored product's name and Chemical Abstracts Service (CAS) number.

(2) Any facility classified as exempt or claiming to be exempt shall meet the same record keeping requirements of this rule so as to be able to prove the exemption status.

(G) Test Methods for Compliance Verification

(1) When more than one test method is specified for testing, a violation determined by any one of these test methods shall constitute a violation of the rule.

(a) ASTM METHOD D-323-06: Reid vapor pressure shall be determined in accordance with American Society of Testing and Materials D323-06, Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).

(b) ASTM METHOD D-2879-97 (2002(e1): True vapor pressure shall be determined in accordance with American Society of Testing and Materials D2879-97(2002)(e1), Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope.

(c) EPA METHODS 2A OR 2B: The gas flow rate shall be determined in accordance with EPA Method 2A, Direct Measurement of Gas Volume Through Pipes and Small Ducts; or EPA Method 2B, Determination of Exhaust Gas volume flow rate From Gasoline Vapor Incinerators, as applicable.

(d) EPA METHOD 21: The gas tight condition shall be determined in accordance with EPA Method 21, Determination of Volatile Organic Compound Leaks, using a portable analyzer calibrated with methane gas.

(e) EPA METHODS 25, 25A OR 25B: VOC emissions shall be determined in accordance with EPA Method 25 – Gaseous Nonmethane Organic Emission, or 25A - Gaseous Organic Concentration, Flame Ionization; or EPA Method 25B - Gaseous Organic Concentration, Infrared Analyzer, as applicable.

(f) CARB TEST PROCEDURE TP-203.1: The terminal vapor recovery system efficiency shall be determined in accordance with CARB Vapor Recovery Test Procedure TP-203.1, Determination of Emission Factor of Vapor Recovery Systems of Terminals.

(g) CARB CERTIFICATION PROCEDURE CP-202 – CERTIFICATION PROCEDURE FOR VAPOR RECOVERY SYSTEMS OF BULK PLANTS: Vapor Recovery efficiency for shall be determined in accordance with CARB Certification Procedure CP-202.

(2) Other test methods demonstrated to provide results that are acceptable for determining Reid or true vapor pressure for purposes of demonstrating compliance with this rule, after review and approval in writing by the District, the ARB, and the U.S. EPA, may also be used.

See SIP Table at http://www.mdaqmd.ca.gov/