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RULE 464
Oil-Water Separators

(A) General

(1) Purpose

(a) The purpose of this rule is to reduce emissions of Volatile Organic Compounds (VOCs) from Oil-Water Separators.

(2) Applicability

(a) This rule applies to Oil-Water Separators including Air Flotation Units as defined in this rule, and process units or containers used to store skimmed oil or tar from Oil-Water Separators.

(B) Definitions

For the purposes of this rule only, the following definitions shall apply:

(1) "Air Flotation Unit" – Equipment used to remove suspended matter, both oil and solid, from water by dissolving air under pressure and then releasing the air at atmospheric pressure in a tank or basin.

(2) "Air Pollution Control Officer" (APCO) – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750 and his or her designee.

(3) "California Air Resources Board" (CARB) – The California State Air Resources Board, the Executive Officer of CARB and his or her authorized representative, the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with Section 39500).

(4) "Control Device" – Any device for reducing emissions of VOC to the atmosphere.

(5) "Effluent Water" – Any wastewater generated as a byproduct of industrial processes and containing dissolved, particulate organic materials. Consists of a mixture of water with a petroleum product, including but not limited to the following: gasoline, kerosene, distillate fuel oils, residual fuel oils and lubricants.

(6) "Fixed Cover" – Any cover made out of metal(s), polymer(s) or other material, and installed in a permanent position over the liquid.

(7) "Floating Cover" – Any cover made out of metal(s), polymer(s) or other material, which is in contact with a liquid surface at all times.

(8) "Forebay" – That section of a gravity-type separator which (a) receives the untreated, contaminated Effluent Water from the preseparator flume, and (b) acts as a header which distributes the influent to the separator channels.

(9) "Fugitive Vapor Leak" (Leak) – The detection of 500 ppm or greater above background (expressed as methane), measured at the interface of the component using an appropriate hydrocarbon analyzer according to the procedures specified in EPA Method 21.

(10) "Non-Contact Water Cooling Systems" – Any system which involves the cooling of organic vapors via coolant injected through piping. There is no contact between the cooling fluid and the vapors being cooled.

(11) "Oil-Water Separator" – Any device or piece of equipment, which utilizes the difference in density between oil or petroleum products and water to remove the oil or associated chemicals from the water, or any device, such as a flocculation tank, clarifier, etc. that removes petroleum-derived compounds from wastewater.

(12) "Operator" – Includes, but is not limited to, any person who owns, leases, supervises, or operates a facility and/or equipment.

(13) "Organic Materials" – Chemical compounds of carbon, excluding carbon monoxide, carbon dioxide, metallic carbides, metallic carbonates and ammonium carbonate.

(14) "Organic Vapors" – Chemical compounds of carbon, excluding carbon monoxide, carbon dioxide, metallic carbides, metallic carbonates and ammonium carbonate in their gaseous state.

(15) "Overall Control Efficiency" – The product of the capture efficiency multiplied by the control efficiency; the weight per unit time of VOC removed by a control device divided by the weight per unit time of VOC emitted by an emission source, expressed as a percentage.

(16) "Petroleum Products" – Any crude oil or oil distillate derived from tar sands, shale or coal, including, but not limited to gasoline, kerosene, distillate fuel oils, residual fuel oils and lubricants.

(17) "Reid Vapor Pressure" – The absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D 323-89.

(18) "United States Environmental Protection Agency" (USEPA) – The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(19) "Vapor Recovery System" – A vapor-gathering system capable of collecting VOC vapors and gases emitted during the operation of equipment.

(20) "Volatile Organic Compound' (VOC) – Any volatile compound containing at least one atom of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and those compounds listed in 40 CFR 51.100(s).

(C) General Requirements

(1) Fugitive Vapor Control Devices

(a) A person shall not use any Oil-Water Separator subject to the provisions of Section (A)(2), unless it has been equipped with one of the following vapor loss control devices, except when gauging or sampling is taking place:

(i) A Fixed Cover with all openings sealed and totally enclosing the liquid contents of the compartment, except for such breathing vents as are structurally necessary; or

(ii) A Floating Cover or double-deck type cover, equipped with closure seals that have no holes or tears, installed and maintained so that gaps between the compartment wall and seal shall not exceed one-eighth inch for an accumulative length of 97 percent of the perimeter of the tank, and shall not exceed one-half inch for an accumulative length of the remaining three percent of the tank. No gap between the compartment wall and the seal shall exceed one-half inch; or

(iii) Route all vapors to a Control Device with an Overall Control Efficiency (collection and control efficiencies) of at least 95 percent by weight of VOCs, measured according to the test method specified in Section (G)(3).

(b) Any oil-water separator subject to this rule shall provide the following vapor loss control device:

(i) A Fixed Cover for all Forebays, such that no liquid surface is exposed to the atmosphere.

(c) Skimmed oil or tar removed from Oil-Water Separators shall be either charged to process units with feed or transferred to a container with a control system with at least 90 percent control efficiency by weight. A Control Device must be under District permit.

(2) Requirements for Covers

(a) Covers for oil-water separators shall meet the following requirements:

(i) The cover material shall be impermeable to VOCs, and free from holes or openings.

(ii) Any gauging or sampling devices on the compartment cover shall be covered. The latter cover shall be kept closed, with no visible gaps between the cover and the compartment, except when the sampling device is being used.

(iii) Hatches on covers shall be kept closed and free of gaps, except when opened for inspection, maintenance or repair.

(iv) The perimeter of a cover, except for a Floating Cover, shall form a seal free of gaps with the foundation to which it is installed.

(3) Fugitive Vapor Leak Monitoring

(a) When an instrument reading of 500 parts per million (ppm) or greater is measured, a leak has been detected and the reading shall constitute a violation of this rule.

(D) Exemptions

(1) The provisions of this rule shall not apply to:

(a) Segregated storm water runoff drain systems or to non-contact cooling water systems, where applicable.

(b) Any system which collects and processes effluent or process water contaminated with oil or other petroleum products and recovers less than 760 liters (201 gallons) a day of oil or other petroleum products

(c) Oils, tars and petroleum products with a Reid Vapor Pressure of less than 25 mm Hg (0.5 pound per square inch).

(E) Monitoring

(1) Monitoring for Fugitive Vapor Leaks shall be performed on a monthly basis and in accordance to test method specified in Section (G)(1). Monitoring records shall be kept on file as prescribed in Section (F)(1).

(2) Monitoring of the control device shall be performed on an annual basis and in accordance to the test method specified in Section (G)(4).

(F) Record Keeping

(1) A log of the monthly leak inspection shall be kept on file at the facility. The log shall record, at a minimum, the following information:

(a) Date of the inspection.

(b) Documentation of all written or machine recorded operator inspections, VOC measurements including corresponding background levels, source tests, repairs, replacements, and reinspection records.

(c) Leak determination method (shall be in accordance to the test method specified in Section (G)(1), using an appropriate hydrocarbon analyzer).

(d) Corrective action (date of leak repair and a written justification for any repair interval in excess of 15 calendar days).

(e) Inspector's name and signature.

(2) Any person using an emission control device/system pursuant to Section (C)(1) as a means of complying with provisions of this rule shall maintain records of key system operating and maintenance data for the purpose of demonstrating continuous compliance during periods of emission producing activities. The data shall be recorded in a manner as prescribed by the District.

(3) Any facility claiming exemption pursuant to Sections (D)(1)(a) or (D)(1)(b) of this rule shall keep records to substantiate the claimed exempt status.

(4) Any record required or produced pursuant to this rule shall be retained on site for a minimum of five (5) years and shall be made available to the APCO upon request.

(G) Test Methods for Compliance Verification

A violation determined by any one of these test methods shall constitute a violation of the rule:

(1) Fugitive Vapor Leaks - Detection of VOCs - EPA Method 21 shall be used to determine compliance with this rule in regards to fugitive or VOC leaks. Instrument shall be calibrated with Method 21 using zero air (less than 10 parts per million (ppm) of hydrocarbon in air) with a mixture of methane or n-hexane.

(2) Determination of Reid Vapor Pressure - Shall be determined by measuring the Reid Vapor pressure in accordance with *Test Method for Vapor Pressure for Petroleum Products (Reid Method)*, ASTM D 323-82 (April 8, 1987).

(3) Control Device Efficiency - Determining the destruction or removal efficiency of a control device shall be:

(a) For systems utilizing add-on control equipment, EPA Method 25 or 25A, as applicable and analysis of halogenated exempt compounds shall be by ARB Method 22.

(b) For incinerators or catalytic incinerators, EPA Method 25, unless the concentration of VOC in the outlet stream is below 50 ppm as carbon, in

which case EPA Method 25A shall be used.

(c) Where add-on control equipment is utilized, collection efficiency shall be determined by EPA document "Model Regulatory Language for Capture Efficiency Testing," August 3, 1990.

(4) Any applicable alternative test method may be used so long as such method has been approved by USEPA, CARB and the APCO.

[SIP: See SIP Table at
http://www.mdaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=45]