

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 419 - PETROLEUM PITS, PONDS, SUMPS, WELL CELLARS, AND WASTEWATER SEPARATORS*(Adopted 7/12/94)***A. APPLICABILITY**

This Rule is applicable to pits, ponds, sumps, well cellars, and wastewater separators where crude oil or petroleum material is produced, gathered, separated, processed or stored.

B. DEFINITIONS

For the purposes of this Rule, the following definitions shall apply:

1. "Emergency Pit": A pit used less than thirty (30) days per year to contain emergency releases of petroleum material. An emergency pit is dry when not in use.
2. "Leak":
 - a. The detection of total gaseous hydrocarbons for any component in excess of 10,000 ppmv as methane above background measured according to the test procedure in Subsection E.3, or
 - b. Exclusive of intermediate barrier seal fluids, any liquid leak which drips liquid organic compounds at the rate of more than three drops per minute or one (1) cubic centimeter per minute.

A "leak" is not a gaseous emission from pressure relief devices on tanks or delivery vessels when normal process pressure exceeds the limit specified for the device.
3. "Pit": A receptacle, formed primarily of earthen materials, although it may be lined with artificial materials, used to receive intermittent flows of petroleum material during an emergency or from drilling and petroleum production processes. Neither a sample box of less than two (2) square feet in horizontal surface area nor a containment berm shall be considered a pit.
4. "Pond": A receptacle, formed primarily of earthen materials, although it may be lined with artificial materials, used to contain produced water from petroleum production processes for disposal or re-use. Ponds are not used for oil/water separation or evaporation.
5. "Sump": A lined or unlined surface impoundment or excavated depression in the ground that, during normal operations, is used for separating oil or other organic liquids, water, and solids in oil production operations. A sump is classified as:
 - a. "Primary or First Stage Production Sump" is any sump which is in continuous use and receives a stream of crude oil and produced water directly from oil production wells or field gathering systems.
 - b. "Secondary or Second Stage Sump" is any sump which is in continuous use and receives a wastewater stream from one or more first stage separators such as a primary or first stage production sump, a free water knockout device, or a wash tank as well as intermittent or emergency streams.
 - c. "Tertiary or Third Stage Sump" is any sump which is in continuous use and receives a wastewater stream from second stage or subsequent separation processes upstream of the sump, and has a very small amount of oil present.
6. "Wastewater Separator": Any device primarily used to separate volatile organic compounds (VOCs) from the wastewater.
7. "Well Cellar": A lined or unlined area around one or more oil wells, allowing access to the wellhead components for servicing and/or installation of blowout prevention equipment.

C. EXEMPTIONS

The provisions of Section D of this Rule shall not apply to the following:

1. Equipment that exclusively receives, holds, or discharges rainwater, stormwater runoff, or non-contact cooling water.
2. Emergency pits and well cellars used in an emergency, if clean-up procedures are implemented within 24 hours after each emergency occurrence and completed within fifteen (15) calendar days.
3. Pits, ponds, or sumps, if the liquid surface area is less than one hundred (100) square feet.
4. Pits, ponds, sumps, or wastewater separators, if the VOC content of the liquid entering is less than five (5) milligrams per liter, as determined by EPA Test Method 8015 with stock standards prepared from gasoline. Sampling shall occur at the inlet to the pit, pond, sump or wastewater separator.
5. Drilling operation pits, if clean-up procedures are implemented within 48 hours after the drilling rig has been removed from the location, if clean-up procedures are completed within fifteen (15) calendar days, and if test production is routed to a closed top tank.
6. Any pit, pond, sump or wastewater separator, when it has been demonstrated to the satisfaction of the Air Pollution Control Officer (APCO) that the maximum degree of achievable emission reduction has already taken place. Each demonstration shall include a cost effectiveness calculation.
7. The provisions of Subsections D.2 and D.4 of this Rule shall not apply during maintenance operations on pits, sumps, or wastewater separators if the APCO is notified at least 24 hours prior to the maintenance operation, and if the maintenance operation will take no more than 24 hours to complete.

D. REQUIREMENTS

1. No person shall install, maintain, or operate a primary or first stage production sump.
2. No person shall use a second or third stage sump, a pit or a pond unless it is equipped with a properly installed and maintained cover which prevents the escape of VOCs into the atmosphere through openings other than pressure-vacuum relief valves. The cover and its appurtenances shall be maintained such that:
 - a. The cover material is impermeable to VOCs,
 - b. There are no holes, tears, or openings in the cover material which allow the emission of organic compounds into the atmosphere,
 - c. All covers and hatches remain closed and leak-free, except during times of actual maintenance, inspection, or repair,
 - d. The perimeter of any cover except for a rigid floating cover forms a leak-free seal with the foundation to which it is attached,
 - e. All rigid floating covers are installed and maintained such that the gap between the wall and the seal does not exceed 1/8 inch for a cumulative length of 95 percent of the perimeter of the compartment. No single gap between the wall and the seal shall exceed 1/2 inch, and
 - f. All pressure-vacuum relief valves are set to within ten (10) percent of the maximum allowable working pressure of the cover or in accordance with appropriate recommendations of the American Petroleum Institute or the American Society of Mechanical Engineers, and shall be properly installed, maintained in good operating order, and shall remain in a leak-free condition except when the operating pressure exceeds the valve set pressure.
3. No person shall hold crude oil or petroleum material in a well cellar except during periods of equipment maintenance or well workover. In no case shall storage occur for more than five (5) consecutive calendar days.

- a. A person shall not sample petroleum at the wellhead without using a portable container to catch and contain the portion that would otherwise drop into the well cellar. Such container shall be kept closed when not in use.
 - b. Immediately before a well is steamed or after a wellhead is steam cleaned, the well cellar in which it is located shall be pumped out.
4. No person shall use any compartment of a wastewater separator unless the following are implemented:
- a. Vapors from all such compartments within 100 feet of a suitable vapor recovery system are processed by that vapor recovery system. A vapor recovery system is suitable if it is of operational capacity sufficient to comply with vapor recovery requirements of Rule 425, Storage of Volatile Organic Compounds, Section E.3 after separator streams are added.
 - b. All wastewater separators not described by Subsection D.4.a of this Rule are equipped with one of the following:
 1. A solid cover with all openings sealed and totally enclosing the liquid contents of that compartment, except during attended inspection of the compartment.
 2. A floating pontoon or double-deck type cover that rests on the surface of the liquid contents and is equipped with primary and secondary closure seals that meet the requirements of Rule 425.
 3. A vapor recovery system which meets the requirements of Rule 425.
 4. Other equipment having an overall vapor loss control efficiency of at least 90% by weight, provided
 - i. the equipment consists of an enclosure or intake designed to collect and deliver all emissions and a control device to remove VOCs from the delivered emissions, and
 - ii. an Authority to Construct for installation of such equipment is granted by the APCO.
 5. Any cover used to achieve compliance with Subsections D.4.b.1, D.4.b.2, or D.4.b.4 of this Rule shall meet the requirements of Subsection D.2 of this Rule.

E. TEST METHODS

1. The VOC concentration of crude oil or petroleum material in milligrams per liter shall be determined by EPA Method 8015 with stock standards prepared from gasoline. Samples shall be prepared and extracted using EPA Method 5030. Sampling shall occur at the entry point of the device.
2. Vapor loss control efficiency shall be determined by ARB Method 202 or 203 as published in Volume 2 of ARB's Stationary Source Test Methods dated September 12, 1990. Sections of these ARB methods which relate to certification and fees (i.e. Sections V, VI, and VII) apply only to tanks subject to vapor recovery system certification requirements independently of this Rule. The applicability of Methods 202 and 203 shall be determined as follows:
 - a. ARB Method 202 applies to tanks receiving organic liquid by truck.
 - b. ARB Method 203 applies to tanks receiving organic liquid other than by truck.
3. Detection and measurement of leaks shall be conducted according to EPA Reference Method 21. The analyzer shall be calibrated with methane.

F. RECORDKEEPING

1. Any person claiming an exemption from this Rule pursuant to Subsection C.4 above may be required to justify the exemption every twelve (12) months. Such justification shall be submitted to the APCO, in writing, upon request and shall include the results of an independent laboratory analysis.

2. Any person holding crude oil in a well cellar during periods of equipment maintenance or well workover pursuant to Subsection D.3 shall maintain records, which may include but are not limited to workover invoice documents, indicating the date(s) the material was stored in the well cellar or the date(s) of workover activity.
3. Any person claiming an exemption from this Rule pursuant to Subsections C.2, C.4, and C.6 shall maintain records to justify the exemption.
4. Records required pursuant to Subsections F.2 and F.3 shall be made available to the APCO upon request.

G. REPORTING

No later than January 12, 1995, the owner or operator shall submit to the APCO the following information:

1. The description, location, surface area, and Air Pollution Control District (APCD) Permit to Operate number (if one exists) for each petroleum pit, pond, sump, well cellar, and wastewater separator.
2. Any person claiming an exemption from this Rule pursuant to Subsections C.2, C.4, and C.6 shall submit records to justify the exemption.
3. The current compliance status of each process unit with respect to the requirements of this Rule.

H. COMPLIANCE SCHEDULE

1. All operations to which this Rule applies shall be in full compliance no later than July 12, 1996.
2. Before any person installs emission control equipment on an existing pit, pond, sump, well cellar, or wastewater separator pursuant to the requirements of this Rule, they shall submit an application for an Authority to Construct not later than July 12, 1995.