

RULE 4404 HEAVY OIL TEST STATION - KERN COUNTY (Adopted May 21, 1992, Amended December 17, 1992)

1.0 Purpose

The purpose of this rule is to limit VOC emissions from the operation of heavy oil test stations.

2.0 Applicability

The provisions of this rule shall apply to the operation of heavy oil test stations.

3.0 Definitions

3.1 Complete Application: an application for an Authority to Construct a steam-enhanced crude oil production well vapor collection and control system which includes all design data and specifications necessary for the APCO to make the findings set forth in Rule 2070 (Standards for Granting Applications).

3.2 Cyclic Well: any crude oil production well, which is periodically (at least once in the preceding two (2) year period) injected with steam from any source for the purpose of enhancing oil production.

3.3 Heavy Oil Test Station (HOTS): a tank setting which is comprised of both a family tank and one (1) or more test tanks.

3.3.1 Family Tank: a tank which directly receives crude oil production from more than one (1) steam drive well through individual production lines which discharge into the tank.

3.3.2 Test Tank: a tank which tests the production rate from a single steam drive well.

3.4 Leak: a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured at a distance of one (1) centimeter from the potential source.

3.5 Operate: to perform any activity with, or on any steam-enhanced crude oil production well, including but not limited to producing, steam-enhancing, venting, maintaining or repairing.

3.6 Pilot Testing: testing of a new cyclic well for up to 180 days from each production zone for the purpose of determining the viability of developing a steam-enhanced production zone.

- 3.7 Portable Hydrocarbon Detection Instrument: a hand-held hydrocarbon analyzer using flame ionization or thermal conductivity as the detection method and satisfying Method 21, 40 CFR Part 60. The instrument shall be calibrated on methane and sample at one (1) liter per minute.
- 3.8 Production Zone: a subsurface geologic formation or group of formations of oil bearing material beneath the surface of the ground through which steam could migrate from a steam injection well, or cyclic well being steamed to an oil production well.
- 3.9 Service or Repair: means a well shall be considered under service or repair during rig-up, operation, and rig-down of any rig or pulling unit used to repair or maintain surface or downhole well equipment.
- 3.10 Small Producer: a person who:
- 3.10.1 Produces an average of less than 6,000 barrels per day of crude oil from all operations within the District, and
 - 3.10.2 Does not engage in refining, transporting, or marketing of refined petroleum products.
- 3.11 Steam Drive Well: means any crude oil production well which produces from the same production zone in which a steam injection well is completed and is within:
- 3.11.1 250 feet of a steam injection well, if the injection well is within a production well pattern of two and one-half (2-1/2) acres or smaller; or
 - 3.11.2 350 feet of a steam injection well, if the injection well is within a production well pattern of greater than two and one-half (2-1/2) acres but less than or equal to five (5) acres; or
 - 3.11.3 500 feet of a steam injection well, if the injection well is within a production well pattern larger than five (5) acres, or
 - 3.11.4 1000 feet of a steam injection well, and responds to steam injected in an irregular production well pattern, and exhibits any visible emissions.
- 3.12 Steam-Enhanced Crude Oil Production Well: any steam drive well, cyclic well, or any other well in a production zone that has had the temperature raised by the injection of steam.
- 3.13 Steam Injection Well: a well into which steam is injected that enhances the production of oil from other wells in the same production zone. Cyclic wells

which enhance production of oil from other wells in the production zone are considered injection wells.

- 3.14 Visible Emissions: from well vents are any visible plume including water vapor. When the ambient air temperature is 60°F or less a well vent shall be considered to have visible emissions if there is any visible plume and there is a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured a distance of one (1) centimeter from the vent.
- 3.15 Well Stimulation: cyclic steam injection of a well for up to 180 days prior to the well being placed in service as a continuous steam injection well.

4.0 Emission Control Requirements

- 4.1 No person shall operate a HOTS unless the uncontrolled VOC emissions are reduced by at least 99 percent by weight.
- 4.2 When the opening in the tank roof is in use for sampling or gauging, except for pressure-vacuum valves which shall be set within ten (10) percent of the maximum allowable working pressure of the roof, it shall be equipped with a cover, seal or lid. The cover, seal or lid shall at all times be in a closed position with no visible gaps and maintained in a gas-tight condition except when the device or appurtenance is in use.

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