

RULE 1148. THERMALLY ENHANCED OIL RECOVERY WELLS

(a) Definitions

- (1) OPERATE means to perform any activity with or on any crude oil production well including, but not limited to pumping, venting, maintaining, or repairing.
- (2) REACTIVE ORGANIC GASES (ROG) means any gaseous chemical compound which contains the element carbon; excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates and metallic carbides; and excluding methane, 1,1,1-trichloroethane, methylene chloride, trifluoromethane and chlorinated-fluorinated hydrocarbons.
- (3) PRODUCTION ZONE means a formation or group of formations of oil bearing material beneath the surface of the ground through which steam can travel from a steam injection well to an oil production well.
- (4) STEAM DRIVE WELL means any crude oil production well that is completed in the same production zone as is a steam injection well, that is either operated by the person injecting the steam or responding to steam injection under a contractual agreement with the operator of the steam injection well, and that is within a:
 - (A) 250 foot radius of the steam injection well, if the steam injection well is within a 2-1/2 acre or smaller production well pattern; or
 - (B) 350 foot radius of the steam injection well, if the steam injection well is within a production well pattern of 5 acres or smaller but larger than 2-1/2 acres; or
 - (C) 500 foot radius of the steam injection well, if the steam injection well is within a production well pattern larger than 5 acres; or
 - (D) 1,000 foot radius of the steam injection well, if the production well is not in one of the above specified patterns.
- (5) STEAM INJECTION WELL is a well into which steam is injected to increase the production of oil from adjacent wells.
- (6) CYCLIC STEAM WELL is any producing well in which steam is injected and production resumes after a soaking period.
- (7) BEING SERVICED means being maintained, inspected, repaired and/or adjusted.

(b) Requirements

- (1) No person shall operate a steam drive well unless the ROG emissions from the well are 4.5 pounds per day or less; or
- (2) If steam drive wells are connected to a vapor control system, ROG emissions from the control system shall average no more than 4.5 pounds per day per connected well.

(c) Compliance

- (1) The operator of any new steam drive well, or any non-steam drive well converted to a steam drive well, who begins drive operations on or after the date of adoption of this rule shall comply with the provisions of this rule not later than 12 months after steam injection commences.
- (2) The operator of any oil production well operated as a steam drive well prior to the date of adoption of this rule:
 - (A) Shall be in full compliance with the provisions of this rule by 19 months after adoption of this rule; and
 - (B) For any operator who chooses to control the emissions from the well by installing a vapor control system shall comply with the following schedule of increments of progress:
 - (i) Upon adoption of this rule, submit to the Executive Officer a final control plan which describes, as a minimum the steps, including construction schedules, that will be taken to achieve compliance with the provisions of this rule and an application for authority to construct the proposed vapor control system.
 - (ii) Three months after adoption of this rule, provide documentation to the Executive Officer that contracts or purchase orders for the control system and component parts have been issued.
 - (iii) Nine months after adoption of this rule, initiate on-site construction or installation of the vapor control system.
 - (iv) Seventeen months after adoption of this rule, complete on-site construction of the vapor control system.
 - (v) Nineteen months after adoption of this rule, demonstrate full compliance with the provisions of this rule.

- (3) Compliance testing shall be performed annually by the operator of vapor control systems used to control emissions from steam drive wells. The testing shall be performed during June, July, August, or September of each year. The operator shall notify the Executive Officer thirty days before testing begins and shall have a record of tests available, upon request by the Executive Officer, not later than thirty days after the completion of the tests.

(d) Exemptions

- (1) The Executive Officer may allow an exemption from the requirements of this rule for any steam drive well during the times that the well-head is opened to the atmosphere when the well is being serviced.
- (2) Any steam drive well defined by subparagraph (a)(4)(D) is exempt from the provisions of this rule if the operator shows to the satisfaction of the Executive Officer that the temperature at the well-head of produced oil and water has been increased by less than thirty Fahrenheit degrees (16.7 Celcius degrees) above the temperature at the well-head of oil and water that was produced before steam injection was commenced.
- (3) Any steam drive well defined by subparagraph (a)(4)(D) into which steam has been injected is exempt from the provisions of this rule for six months from the most recent date of such steam injection, provided that the amount of steam expressed as water injected during the most recent injection is more than 2,000 barrels and that:
 - (A) Steam is injected more frequently than once every 45 days; or
 - (B) For such wells that are steamed less frequently than once every 45 days, there is no visible vapor plume when the casing vent is open and the ambient air temperature is sixty degrees Fahrenheit (33.3 Celcius degrees) or greater, 45 days after steam injection has ceased; and
 - (C) Records are made available, upon request, to the Executive Officer of:
 - (i) date of injection;
 - (ii) the amount of steam injected expressed as volume of water.
- (4) Any vapor control system and connected steam drive wells are exempt from subsection (c)(3) if the requirements of (b)(2) have initially been met

and the ROG leaving the system is vented into a fuel gas or other approved gas gathering system.