

**RULES
OF THE
OIL AND GAS PROGRAM
DIVISION OF WATER RESOURCES**

**CHAPTER 0400-53-03
PREVENTION OF HAZARDS AND POLLUTION**

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- (1) Each operator shall so conduct his operations and maintain his equipment as to reduce to a minimum the danger of explosion, fire, or waste.
- (2) All tests for production should be started and completed during daylight hours unless approval is obtained by the Supervisor.
- (3) No boiler, open fire, or electric generator shall be operated within 100 feet of any producing oil or gas well or oil tank.
- (4) Any rubbish, debris, or vegetation that might constitute a fire hazard shall be removed to a distance of at least 100 feet from the vicinity of wells to be tested.
- (5) All waste shall be disposed of in such a manner as to avoid creating a fire hazard or polluting streams and fresh water strata.
- (6) No test oil, condensate, salt water, or any other fluid substance shall be discharged to or disposed of in any way into any stream, lake, or other body of water, or into any ditch or surface drainage depression leading to any stream, lake, or other body of water, except in compliance with the Water Quality Control Act T.C.A. §§ 69-3-101 et seq. and the regulations of the Board of Water Quality, Oil and Gas, Chapter 1200-04-03.
- (7) All wells shall have the equipment and containers or lined pits necessary to prevent the spillage of oil, condensate, water, or any other fluids or substances produced or used during any production test. The equipment shall be in place prior to the start of the production test, and shall be large enough to contain any plausible spill.
- (8) All wells shall be cleaned into a pit or tank, located at a distance of at least 100 feet from any fire hazard or dwellings. If it seems likely that a pit will overflow, additional pits shall be constructed, or else tanks shall be brought in to contain the surplus fluids.
- (9) No oil or gas well shall be drilled closer than 200 feet from a dwelling or closer than 100 feet from a state highway or county road.
 - (a) That portion of this regulation concerning distance from a dwelling may be waived by the Supervisor upon submission of a notarized statement by the dwelling owner agreeing to the well location.
- (10) No oil or gas well shall be drilled within 200 feet of any water well that is in active use. This requirement may be waived by the Supervisor upon submission of a notarized statement from the well owner agreeing to the location of the oil or gas well and a plan identifying the additional measures to be taken to prevent pollution of the water well.

(Rule 0400-53-03-.01, continued)

- (11) No oil or gas well shall be drilled within 100 feet of any stream, lake, or other body of water, so that an undisturbed riparian zone can be maintained, except that this requirement may be waived upon submission of a plan identifying additional measures acceptable to the Supervisor to be taken to prevent pollution of the waters of the State. No oil or gas well shall be drilled within 330 feet of any water body designated as an Outstanding National Resource Water (ONRW).
- (12) The siting of wells, pits, or storage facilities in wetlands or in flood-prone areas (as indicated by the observed high water mark) of a stream is prohibited.

Authority: *T.C.A §§ 60-1-201 et seq., and 4-5-201 et seq.* **Administrative History:** *Original rule filed March 20, 2013; effective June 18, 2013.*

0400-53-03-.02 ENVIRONMENT.

- (1) All personnel, including operators and service personnel shall be trained in the prevention of spills and made aware of the consequences of spillage. There shall be a Site Coordinator designated for each well site who shall be the principle contact for all activities on the location and the responsible party for submitting an action and safety plan for each well site. The action plan shall include contingency measures to mitigate and minimize the risk of failure, spills, or releases due to unplanned events. Site Coordinators shall be certified by completing the Tennessee Site Coordinator Training Course. Equivalent training credentials may be temporarily accepted at the Supervisor's discretion until such time as the course certification can be obtained.
- (2) Operators shall implement necessary procedures and safeguards during drilling and completion operations to prevent the uncontrolled flow of oil from wells, including, but not limited to:
 - (a) Follow reasonable procedures such as cleaning and lubricating pipe threads so that pipe can be made up to proper tightness.
 - (b) Lay flow and test lines on ground or install adequate supports for crossing streams and drainways with the lines.
 - (c) At truck loading terminals, provide containers to catch unrecoverable oil at the hose connections, and provide proper maintenance of valves and other equipment. Train personnel to take necessary procedures to prevent spillage.
 - (d) During completion operations, produce and clean wells into tanks instead of pits if at all possible.
 - (e) At the same time that any pits or other diversion, transport, or storage facilities are constructed at ground level, dikes, diversion ditches, or other structures shall also be constructed to prevent any surface water from entering the pits or other facilities.
 - (f) Remove oil, salt water, or other fluids from pits as soon as practical after it has accumulated in them, and dispose of it in such a way that none can enter surface water or ground water, or otherwise adversely affect the environment or threaten public health and safety. Uncontaminated fresh water (free of salt, hydrocarbons or other potential pollutants) produced during drilling operations may be land applied on site.
 - (g) All pits or other diversion, transport, or storage facilities shall be constructed so that waste fluids do not discharge from them. There shall be no discharge pipe, overflow weir, trickle tube, or any other device allowing any discharge. The operator is responsible for maintaining adequate storage capacity at all times. No pit shall be

(Rule 0400-53-03-.02, continued)

located so that any part of it, including a dike or diversion structure, is within a horizontal distance of 100 feet of the normal high-water line of any stream or lake. All pits shall be lined using a synthetic liner of at least 10 mil thickness. If a rocky or uneven surface is encountered in pit construction, sand or sandy material shall be placed below the liner sufficient to protect the liner from damage. The synthetic liner shall be protected from deterioration, punctures, or other activity that may damage the integrity of the liner. As an alternative, compacted clay liners or other equivalent measures may be used at the discretion of the Supervisor. In areas where groundwater is close enough to the surface that it will be encountered in construction of a pit, pits shall be constructed above ground, or the operator shall use a closed-loop system.

- (h) Containment at tanks shall equal at a minimum the storage capacity of 1½ times the capacity of the largest tank in the tank battery.
 - (i) All tanks shall be maintained to prevent corrosion which can lead to both fluid loss from the vessel and accelerated reduction in its useful life span.
 - (j) To prevent fire hazard, all tank batteries and tanks shall be kept free of brush or overgrowth within the berm surrounding the tank or tanks.
 - (k) Dikes and ditches designated in subparagraphs (e) and (g) of this paragraph should be constructed in a manner to accommodate permanent facilities such as pumping units and flow lines.
 - (l) Provide dikes and/or containment pits at storage tanks upon initial installation where such tanks are so located as to be deemed hazardous. If containment pits are to be used, they should be constructed according to the guidelines set forth in Rule 0400-54-01-.05.
- (3) The following additional requirements shall apply to mud and reserve pits.
- (a) The operator shall indicate in the drilling application that mud and/or reserve pits are to be constructed. The application shall include at a minimum the size and configuration of the pits, the liner to be used, the type of fluid system and drilling fluids to be used, and the method of disposal of all drilling fluids used at the site.
 - (b) Mud circulation and reserve pits shall be constructed with a synthetic liner of at least 20 mil thickness, with a 4 inch welded seam overlap, completely covering the pit bottom and inside walls. Other materials and methods used for liner construction must be approved by the Supervisor prior to use.
 - (c) Mud circulation and reserve pits shall be constructed and operated with a minimum of 2 feet of freeboard, and shall be designed so that only runoff from the immediate work area may enter the pit. Pits constructed above ground with bermed side walls shall be constructed with a minimum of 2:1 side slopes on both interior and exterior walls. The top of the bermed walls must be a minimum of 2 feet wide.
 - (d) Closed loop systems may be used for mud and circulation, and must be maintained in a leak-free condition.
- (4) Operators shall implement prudent production operations to prevent potential oil spills, including, but not limited to:
- (a) Connect fill lines to storage tanks so that oil and gas shall not spray into the atmosphere.

(Rule 0400-53-03-.02, continued)

- (b) Install "equalizer" lines between adjacent tanks as a safeguard against overflow.
 - (c) Install oil and gas separators where gas is produced in sufficient quantities to be hazardous.
 - (d) Pump contaminated unsalable residual oil from storage tanks into an accumulator tank instead of open pits.
 - (e) Place locks, remove handles, or otherwise secure all valves, so vandals cannot open them to cause spills.
- (5) The Supervisor should notify all oil industry related companies, including operators, service companies, drilling contractors, and crude oil gatherers and purchasers of their responsibility and liability in regard to oil spills. In the case of a spill of oil, saltwater, or other drilling or production associated materials, the operator shall contact the Supervisor or his representative within 12 hours upon knowledge of the spill.

Authority: T.C.A §§ 60-1-201 et seq., and 4-5-201 et seq. **Administrative History:** Original rule filed March 20, 2013; effective June 18, 2013.