STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION FOR REPEAL OF EXISTING RULE 50 CONCERNING PITS AND BELOW GRADE TANKS AND ADOPTION OF A NEW RULE GOVERNING PITS, BELOW GRADE TANKS, CLOSED LOOP SYSTEMS AND OTHER ALTERNATIVE METHODS TO THE FOREGOING, AND AMENDING OTHER RULES TO MAKE CONFORMING CHANGES; STATEWIDE.

CASE NO. 14015

APPLICATION FOR RULEMAKING

I

The New Mexico Oil Conservation Division (the Division) hereby applies to the New Mexico Oil Conservation Commission (the Commission) for an order

(a) repealing existing Rule 50 [19.15.2.50 NMAC], concerning pits and below grade tanks;

(b) adopting a new rule containing revised and more comprehensive provisions with respect to pits and below grade tanks, and also regulating closed loop systems and other alternative methods, to be codified as Part 17 of the Rules of the Oil Conservation Division [19.15.17 NMAC]

(c) adopting conforming changes to Rules 7 [19.15.1.7 NMAC], 21 [19.15.1.21 NMAC], 52 [19.15.2.52 NMAC], 114 [19.15.3.114 NMAC], 202 [19.15.4.202 NMAC] and 1103 [19.15.13.1103 NMAC].

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II

The intended effect of the proposed rule change is:

(a) to ban all unlined pits absent a special exception;

(b) to ban the use of pits in particular areas, including any location where the distance to groundwater is less than 50 feet, absent a special exception;

(c) to adopt new requirements for the closure of pits and below-grade tanks, requiring closure of pits by excavation and removal of pit contents and liner material, except in defined circumstances where encapsulation of waste on site is authorized, or as otherwise allowed by a special exception; and

(d) to otherwise substantially change the Commission's existing requirements concerning the permitting, design, construction and operation of pits and below-grade tanks (and operation of sumps) used in oil and gas operations, and require the permitting of, and prescribe rules concerning design, construction, operation and closure of, closed loop systems or other alternative methods that may be proposed for use in lieu of pits or below-grade tanks, in order to protect fresh water, public health and the environment.

III

A draft of the proposed new Rule 19.15.17, and of proposed conforming amendments to other rules, is attached hereto as Exhibit A, and incorporated herein by this reference.

IV

A copy of a proposed legal notice of this application for publication is attached hereto as Exhibit B, and incorporated herein by this reference.

WHEREFORE, the Division hereby applies to the Commission to enter an order:

A. repealing existing Rule 50, adopting the proposed new Rule Part 17, and amending Rules 7, 21, 52, 114, 202 and 1103 to adopt the conforming changes thereto set forth in Exhibit A.

B. certifying the new rules so adopted for publication in the New Mexico Register as required by statute.

RESPECTFULLY SUBMITTED,

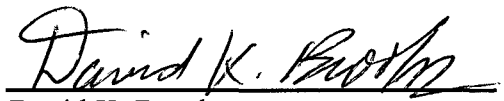

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Exhibit A
To Application for Rulemaking
Case No. _____

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 17 PITS, CLOSED-LOOP SYSTEMS, BELOW-GRADE TANKS AND SUMPS

19.15.17.1 ISSUING AGENCY: Energy, Minerals and Natural Resources Department, Oil Conservation Division.
[19.15.17.1 NMAC - N, / /07]

19.15.17.2 SCOPE: 19.15.17 NMAC applies to persons engaged in oil and gas development and production within New Mexico.
[19.15.17.2 NMAC - N, / /07]

19.15.17.3 STATUTORY AUTHORITY: 19.15.17 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Section 70-2-6, Section 70-2-11 and Section 70-2-12.
[19.15.17.3 NMAC - N, / /07]

19.15.17.4 DURATION: Permanent.
[19.15.17.4 NMAC - N, / /07]

19.15.17.5 EFFECTIVE DATE: _____, 2007, unless a later date is cited at the end of a section.
[19.15.17.5 NMAC - N, / /07]

19.15.17.6 OBJECTIVE: To regulate pits, closed-loop systems, below-grade tanks and sumps used in connection with oil and gas operations for the protection of public health, welfare and the environment.
[19.15.17.6 NMAC - N, / /07]

19.15.17.7 DEFINITIONS:

A. "Alluvium" means detrital material that water or other erosional forces have transported and deposited at points along a watercourse's flood plain. It typically is composed of sands, silts and gravels; exhibits high porosity and permeability; and generally carries fresh water.

B. "Closed-loop system" means a system that uses above ground steel tanks for the management of drilling or workover fluids without using below-grade tanks or pits.

C. "Division-approved facility" means a division-permitted surface waste management or injection facility, a facility permitted pursuant to 20.6.2 NMAC, a facility approved pursuant to 19.15.9.712 NMAC or other facility that the division specifically approves for the particular purpose. The division shall not approve any facility not otherwise permitted unless it finds that the facility's use for the specified purpose will protect fresh water, public health and the environment and comply with other applicable federal or state statutes, federal regulations, state rules and local ordinances.

D. "Emergency pit" means a pit that is constructed as a precautionary matter to contain a spill in the event of a release.

E. "Permanent pit" means a pit, including a pit used for collection, retention or storage of produced water or brine that is constructed with the conditions and for the duration provided in its permit, and is not a temporary pit.

F. "Restore" means to return a site to its former condition, in the manner and to the extent required by applicable provisions of 19.15.17 NMAC.

G. "Re-vegetate" means to seed or plant a site with plant species that are predominantly native in a quantity that controls erosion.

H. "Sump" means an impermeable vessel, or a collection device incorporated within a secondary containment system, with a capacity less than 500 gallons, which remains predominantly empty, serves as a drain or receptacle for de minimis releases on an intermittent basis and is not used to store, treat, dispose of or evaporate products or wastes.

I. "Temporary pit" means a pit, including a drilling or workover pit, which is constructed with the intent that the pit will hold liquids for less than six months and will be closed in less than one year.
[19.15.17.7 NMAC - Rp, 19.15.2.7 NMAC, / /07]

19.15.17.8 PERMIT REQUIRED:

A. A person shall not construct or use a pit or below-grade tank except in accordance with a division-issued permit. Only an operator may apply for a division-issued permit. Facilities permitted pursuant to 19.15.36 NMAC or WQCC rules are exempt from 19.15.17 NMAC. After _____, 200_ [effective date], an unlined permanent pit is prohibited and the division shall not issue a permit for an unlined permanent pit.

B. In lieu of using a pit or below-grade tank in accordance with 19.15.17 NMAC, an operator may use a closed-loop system or other division-approved alternative method. However, an operator may not conduct operations using a closed-loop system or other proposed alternative method except in accordance with a division-issued permit. An operator requesting a permit for a closed-loop system that uses a temporary pit shall comply with the requirements for temporary pits specified in 19.15.17 NMAC.

[19.15.17.8 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.9 PERMIT APPLICATION:

A. An operator shall apply to the division for a permit to construct or use a pit, closed-loop system, below-grade tank or other proposed alternative method to which 19.15.17 NMAC applies, using form C-144, submitted either separately or as an attachment to a permit application for a facility with which the pit, closed-loop system, below-grade tank or other proposed alternative method will be associated. For upstream facilities, the operator may submit form C-144 separately or as an attachment to an application for a well permit (form C-101 or C-103).

B. The permit application shall include a detailed engineering design plan.

(1) Permanent pits. A registered professional engineer shall certify engineering design plans for permanent pits. The engineering design plan shall include:

(a) a quality control/quality assurance construction and installation plan;

(b) operating and maintenance procedures;

(c) a closure plan;

(d) a hydrogeologic report that provides sufficient information and detail on the site's topography, soils, geology, surface hydrology and ground water hydrology to enable the environmental bureau in the division's Santa Fe office to evaluate the actual and potential effects on soils, surface water and ground water;

(e) detailed information on dike protection and structural integrity; and leak detection, including an adequate fluid collection and removal system;

(f) liner specifications and compatibility;

(g) freeboard and overtopping prevention;

(h) prevention of nuisance or hazardous odors, including H_2S;

(i) an emergency response plan, unless the permanent pit is part of a facility that has an integrated contingency plan;

(j) type of oil field waste stream;

(k) climatological factors, including freeze-thaw cycles;

(l) a monitoring and inspection plan;

(m) erosion control; and

(n) other pertinent information the environmental bureau in the division's Santa Fe office requests.

(2) Temporary pits. An engineering design plan for a temporary pit shall use appropriate engineering principles and practices and follow applicable manufacturers' recommendations. The engineering design plan shall include operating and maintenance procedures, a closure plan and a hydrogeologic report that provides sufficient information and detail on the site's topography, soils, geology, surface hydrology and ground water hydrology to enable the appropriate division district office to evaluate the actual and potential effects on soils, surface water and ground water. An engineering design plan for a temporary pit may incorporate by reference a standard design for multiple temporary pits that the operator files with the application or has previously filed with the appropriate division district office.

(3) Closed-loop systems. An engineering design plan for a closed-loop system shall use appropriate engineering principles and practices and follow applicable manufacturers' recommendations. The engineering design plan shall include operating and maintenance procedures and a closure plan. An engineering design plan for a closed-loop system may incorporate by reference a standard design for multiple projects that the operator files with the application or has previously filed with the appropriate division district office.

(4) Below-grade tanks. An engineering design plan for a below-grade tank shall use appropriate engineering principles and practices and follow applicable manufacturers' recommendations. The engineering design plan shall include operating and maintenance procedures, a closure plan and a hydrogeologic report that provides sufficient information and detail on the site's topography, soils, geology, surface hydrology and ground water hydrology to enable the appropriate division district office to evaluate the actual and potential effects on soils, surface water and ground water. An engineering design plan for a below-grade tank may incorporate by reference a standard design for multiple below-grade tanks that the operator files with the application or has previously filed with the appropriate division district office.

C. Closure plans. A closure plan that an operator submits in an engineering design plan, or any other closure plan required pursuant to 19.15.17 NMAC, shall describe the proposed closure method and the proposed procedures and protocols to implement and complete the closure.

(1) If the operator proposes an on-site closure method, the operator shall also propose other methods to be used if the initial method does not satisfy the on-site closure standards specified in Subparagraph (d) of Paragraph (2) of Subsection F of 19.15.17.13 NMAC or, if applicable, other on-site closure standards that the environmental bureau in the division's Santa Fe office approves.

(2) An operator of an existing unlined, permitted or registered permanent pit, or an existing lined or unlined, permanent pit not permitted or registered, identified under Paragraphs (1) or (2) of Subsection A of 19.15.17.13 NMAC, shall submit the respective closure plan required under the transitional provisions of Subsection B of 19.15.17.17 NMAC to the environmental bureau in the division's Santa Fe office.

(3) An operator of an existing unlined, temporary pit or an existing below-grade tank, identified under Paragraphs (3) or (4) of Subsection A of 19.15.17.13 NMAC, shall submit the respective closure plan required under the transitional provisions of Subsection B of 19.15.17.17 NMAC to the appropriate division district office.

(4) An operator shall include in the permit application an engineering design plan with an attached closure plan.

D. Filing of permit application.

(1) Permanent pits and exceptions requested pursuant to 19.15.17.15 NMAC. An operator shall file an application, form C-144, and all required attachments with the environmental bureau in the division's Santa Fe office to request approval to use or construct a permanent pit or request an exception pursuant to 19.15.17.15 NMAC and shall provide a copy to the appropriate division district office.

(2) Temporary pits, closed-loop systems and below-grade tanks. To request approval to use or construct a temporary pit, closed-loop system or below-grade tank, an operator shall file an application, form C-144, and all required attachments with the appropriate division district office.

[19.15.17.9 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.10 SITING REQUIREMENTS:

A. Except as otherwise provided in 19.15.17 NMAC.

(1) An operator shall not locate a temporary pit or below-grade tank:

(a) where ground water is less than 50 feet below the bottom of the temporary pit or below-grade tank;

(b) within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark), unless the appropriate division district office approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected;

(c) within 300 feet from a permanent residence, school, hospital, institution or church in existence at the time of initial application;

(d) within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application;

(e) within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended, unless the municipality specifically approves;

(f) within 500 feet of a wetland;

(g) within the area overlying a subsurface mine, unless the appropriate division district office specifically approves the proposed location based upon the operator's demonstration that subsurface integrity will not be compromised;

(h) within an unstable area, unless the operator demonstrates that it has incorporated engineering measures into the design to ensure that the temporary pit's or below-grade tank's integrity is not compromised; or

(i) within a 100-year floodplain.

(2) An operator shall not locate a permanent pit:

(a) where ground water is less than 50 feet below the bottom of the permanent pit;

(b) within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark), unless the environmental bureau in the division's Santa Fe office approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected;

(c) within 1000 feet from a permanent residence, school, hospital, institution or church in existence at the time of initial application;

(d) within 500 horizontal feet of a private, domestic fresh water well or spring less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application;

(e) within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended, unless the municipality specifically approves;

(f) within 500 feet of a wetland;

(g) within the area overlying a subsurface mine, unless the environmental bureau in the division's Santa Fe office specifically approves the proposed location based upon the operator's demonstration that subsurface integrity will not be compromised;

(h) within an unstable area, unless the operator demonstrates that it has incorporated engineering measures into the design to ensure that the permanent pit's integrity is not compromised; or

(i) within a 100-year floodplain.

(3) An operator shall not locate material excavated from the construction of the pit:

(a) within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark), unless the division approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected;

(b) within 500 feet of a wetland; or

(c) within a 100-year floodplain.

B. An emergency pit is exempt from the siting criteria of 19.15.17 NMAC.

C. An operator shall not implement an on-site closure method:

(1) where ground water is less than 50 feet below the bottom of the waste;

(2) within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark), unless the division approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected;

(3) within 300 feet from a permanent residence, school, hospital, institution or church in existence at the time of initial application;

(4) within 500 horizontal feet of a private, domestic fresh water well or spring less than five households use for domestic or stock watering purposes or within 1000 horizontal feet of any other fresh water well or spring, existing at the time the operator files the application for exception;

(5) within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended, unless the municipality specifically approves;

(6) within 500 feet of a wetland;

(7) within the area overlying a subsurface mine, unless the division specifically approves the proposed location based upon the operator's demonstration that subsurface integrity will not be compromised;

(8) within an unstable area, unless the operator demonstrates that it has incorporated engineering measures into the design to ensure that the on-site closure method will prevent contamination of fresh water and protect public health and the environment; or

(9) within a 100-year floodplain.

[19.15.17.10 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.11 DESIGN AND CONSTRUCTION SPECIFICATIONS:

A. General specifications. An operator shall design and construct a pit, closed-loop system, below-grade tank or sump to contain liquids and solids and prevent contamination of fresh water and protect public health and the environment.

B. Stockpiling of topsoil. Prior to constructing a pit or closed-looped system, except a pit constructed in an emergency, the operator shall strip and stockpile the topsoil for use as the final cover or fill at the time of closure.

C. Signs. The operator shall post an upright sign not less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the pit, closed-loop system or below-grade tank, unless the pit, closed-loop system or below-grade tank is located on a well site that the operator controls. The operator shall post the sign in a manner and location such that a person can person can easily read the legend. The sign shall provide the following information: the operator's name; the location of the site by quarter-quarter or unit letter, section, township and range; and emergency telephone numbers.

D. Fencing.

(1) The operator shall fence or enclose a pit or below-grade tank in a manner that prevents unauthorized access and shall maintain the fences in good repair. Fences are not required if there is an adequate surrounding perimeter fence that prevents unauthorized access to the well site or facility, including the pit or below-grade tank. During drilling operations, the operator is not required to fence the edge of the pit adjacent to the drilling rig.

(2) The operator shall fence or enclose a pit or below-grade tank located within 1000 feet of a permanent residence, school, hospital, institution or church with a chain link security fence, at least six feet in height with at least two strands of barbed wire at the top. The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not on-site. During drilling operations, the operator is not required to fence the edge of the temporary pit adjacent to the drilling rig.

(3) The operator shall fence any other pit or below-grade tank to exclude wildlife and livestock, with at least four strands of barbed wire in the interval between one foot and five feet above ground level. The appropriate division district office may approve an alternative to this requirement if the operator demonstrates that an alternative provides equivalent or better protection. The appropriate division district office may impose additional fencing requirements for protection of wildlife in particular areas.

E. Netting. The operator shall ensure that a permanent pit or a permanent open top tank is screened, netted or otherwise rendered non-hazardous to wildlife, including migratory birds. Where netting is not feasible, the operator shall routinely inspect for and report discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the appropriate division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring.

F. Temporary pits. The operator shall design and construct a temporary pit in accordance with the following requirements.

(1) The operator shall design and construct a temporary pit to ensure the confinement of oil, gas or water to prevent uncontrolled releases.

(2) A temporary pit shall have a properly constructed foundation and interior slopes consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. The operator shall construct a temporary pit so that the slopes are no steeper than two horizontal feet to one vertical foot (2H:1V). The appropriate division district office may approve an alternative to the slope requirement if the operator demonstrates that it can construct and operate the temporary pit in safe manner to prevent contamination of fresh water and protect public health and the environment.

(3) The operator shall design and construct a temporary pit with a geomembrane liner. The geomembrane liner shall consist of 20-mil string reinforced LLDPE or equivalent liner material that the appropriate division district office approves. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A.

(4) The operator shall minimize liner seams and orient them up and down, not across a slope. The operator shall use factory seams where possible. The operator shall overlap liners four to six inches before seaming, and orient seams parallel to the line of maximum slope, *i.e.*, oriented along, not across, the slope. The operator shall minimize the number of field seams in corners and irregularly shaped areas. Qualified personnel shall perform field seaming.

(5) Construction shall avoid excessive stress-strain on the liner.

(6) Geotextile is required under the liner where needed to reduce localized stress-strain or protuberances that may otherwise compromise the liner's integrity.

(7) The operator shall anchor the edges of all liners in the bottom of a compacted earth-filled trench. The anchor trench shall be at least 18 inches deep.

(8) The operator shall ensure that the liner is protected from any fluid force or mechanical damage at any point of discharge into or suction from the lined temporary pit.

(9) The operator shall design and construct a temporary pit to prevent run-on of surface water. A berm, ditch or other diversion shall surround a temporary pit to prevent run-on of surface water. During drilling operations, the edge of the temporary pit adjacent to the drilling rig is not required to have run-on protection if the operator is using the temporary pit to collect liquids escaping from the rig.

(10) The size of a temporary pit shall not exceed 10 acre-feet, including freeboard.

(11) The part of a temporary pit used to vent or flare gas during a drilling or workover operation that is designed to allow liquids to drain to a separate temporary pit does not require a liner, unless the appropriate division district office requires an alternative design in order to protect surface water, ground water and the environment.

G. Permanent pits. The operator shall design and construct a permanent pit in accordance with the following requirements.

(1) Each permanent pit shall have a properly constructed foundation consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. The operator shall construct a permanent pit so that the inside grade of the levee is no steeper than two horizontal feet to one vertical foot (2H:1V). The levee shall have an outside grade no steeper than three horizontal feet to one vertical foot (3H:1V). The levee's top shall be wide enough to install an anchor trench and provide adequate room for inspection and maintenance.

(2) Each permanent pit shall contain, at a minimum, a primary (upper) liner and a secondary (lower) liner with a leak detection system appropriate to the site's conditions. The edges of all liners shall be anchored in the bottom of a compacted earth-filled trench. The anchor trench shall be at least 18 inches deep.

(3) The primary (upper) liner and secondary (lower) liner shall be geomembrane liners. The geomembrane liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material the environmental bureau in the division's Santa Fe office approves. The geomembrane liner shall have a hydraulic conductivity no greater than 1×10^{-9} cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A.

(4) The environmental bureau in the division's Santa Fe office may approve other liner media if the operator demonstrates to the satisfaction of the environmental bureau in the division's Santa Fe office that the alternative liner protects fresh water, public health, safety and the environment as effectively as the specified media.

(5) The operator shall minimize liner seams and orient them up and down, not across a slope. The operator shall use factory seams where possible. The operator shall ensure field seams in geosynthetic material are thermally seamed (hot wedge) with a double track weld to create an air pocket for non-destructive air channel testing. A stabilized air pressure of 35 psi, plus or minus one percent, shall be maintained for at least five minutes. The operator shall overlap liners four to six inches before seaming, and orient seams parallel to the line of maximum slope, *i.e.*, oriented along, not across, the slope. The operator shall minimize the number of field seams in corners and irregularly shaped areas. There shall be no horizontal seams within five feet of the slope's toe. Qualified personnel shall perform field seaming.

(6) At a point of discharge into or suction from the lined permanent pit, the operator shall ensure that the liner is protected from excessive hydrostatic force or mechanical damage. External discharge or suction lines shall not penetrate the liner.

(7) The operator shall place a leak detection system between the lower and upper geomembrane liners that consists of two feet of compacted soil with a saturated hydraulic conductivity of 1×10^{-5} cm/sec or greater to facilitate drainage. The leak detection system shall consist of a properly designed drainage and collection and removal system placed above the lower geomembrane liner in depressions and sloped to facilitate the earliest possible leak detection. Piping used shall be designed to withstand chemical attack from oil field waste or leachate; structural loading from stresses and disturbances from overlying oil field waste, cover materials, equipment operation or expansion or contraction; and to facilitate clean-out maintenance. The material the operator places between the pipes and laterals shall be sufficiently permeable to allow the transport of fluids to the drainage pipe. The slope of the interior sub-grade and of drainage lines and laterals shall be at least a two percent grade, *i.e.*, two feet vertical drop per 100 horizontal feet. The piping collection system shall be comprised of solid and perforated

pipe having a minimum diameter of four inches and a minimum wall thickness of schedule 80. The operator shall seal a solid sidewall riser pipe to convey collected fluids to a collection, observation and disposal system located outside the permanent pit's perimeter. The operator may install alternative methods that the environmental bureau in the division's Santa Fe office approves.

(8) The operator shall notify the environmental bureau in the division's Santa Fe office at least 72 hours prior to the primary liner's installation so that a representative of the environmental bureau in the division's Santa Fe office may inspect the leak detection system before it is covered.

(9) The operator shall construct a permanent pit in a manner that prevents overtopping due to wave action or rainfall and maintain a three foot freeboard at all times.

(10) The size of a permanent pit shall not exceed 10 acre-feet, including freeboard.

(11) The operator shall maintain a permanent pit to prevent run-on of surface water. A permanent pit shall be surrounded by a berm, ditch or other diversion to prevent run-on of surface water.

H. Closed-loop systems.

(1) The operator shall design and construct a closed-loop system to ensure the confinement of oil, gas or water to prevent uncontrolled releases.

(2) An operator of a closed-loop system that uses temporary pits shall comply with the requirements for temporary pits specified in 19.15.17 NMAC.

(3) An operator of a closed-loop system with drying pads shall design and construct the drying pads so as to include the following:

(a) appropriate liners that prevent the contamination of fresh water and protect public health and the environment;

(b) sumps to facilitate the collection of liquids derived from drill cuttings; and

(c) berms that prevent run-on of surface water.

I. Below-grade tanks. The operator shall design and construct a below-grade tank in accordance with the following requirements.

(1) The below-grade tank's side walls, where the tank's bottom is below-grade, shall be open for visual inspection for leaks. The below-grade tank's bottom shall be equipped with an underlying mechanism to divert leaked liquid to a location that can be visually inspected. A below-grade tank not meeting these conditions shall be in a vault or have a double wall that will contain any leaked liquids.

(2) A below-grade tank shall have secondary containment and leak detection.

(3) The operator of a below-grade tank constructed prior to _____, 200_ [effective date] that does not have secondary containment and leak detection shall test its integrity annually. If the existing below-grade tank does not demonstrate integrity, the operator shall promptly install a below-grade tank that complies with Paragraph (2) of Subsection I of 19.15.17.11 NMAC. In any event, the operator shall equip or retrofit such below-grade tank with secondary containment and leak detection, or close it, within five years after _____, 200_ [effective date].

(4) The operator shall ensure that a below-grade tank is constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.

(5) A below-grade tank system shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom.

(6) A below-grade tank system shall consist of either a double wall system with the capability to detect leaks or a tank placed within a geomembrane lined collection system, or an alternative system that the appropriate division district office approves based upon the operator's demonstration that an alternative provides equivalent or better protection.

(7) The operator shall design and construct a below-grade tank system in accordance with the following requirements, if the below-grade tank system consists of a tank placed within a geomembrane lined collection system.

(a) The operator shall install a geomembrane liner upon the constructed foundation, specified in Paragraph (5) of Subsection I of 19.15.17.11 NMAC, prior to the placement of the collection system and tank. The installed geomembrane liner shall extend above the existing grade. The liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material that the appropriate division district office approves. The geomembrane liner shall have a hydraulic conductivity no greater than 1×10^{-9} cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A.

(b) The operator shall install slotted or perforated drainage pipe (lateral) on the geomembrane liner with the drainage pipe sloped at least one inch per 10 feet towards the collection system. The drainage pipe shall be at least one inch in diameter.

(c) The operator shall cover the drainage pipe with sand, gravel or other material with sufficient permeability to convey fluids to the drainage pipe.

(d) The operator shall install the tank upon the lined collection system and connect a riser pipe to the collection system. The riser pipe shall be at least two inches in diameter.

(e) The operator shall secure the secondary liner to the tank above the ground surface in a manner that prevents rainwater from entering the space between the tank and liner.

(8) The operator shall construct a below-grade tank to prevent overflow and the collection of surface water run-on.

J. On-site deep trenches for closure. The operator shall design and construct an on-site deep trench for closure, specified in Paragraph (2) of Subsection B of 19.15.17.13 NMAC or Paragraph (2) of Subsection D of 19.15.17.13 NMAC, in accordance with the following requirements.

(1) The operator shall locate the trench to satisfy the siting criteria specified in Subsection C of 19.15.17.10 NMAC and Subparagraph (e) of Paragraph (2) of Subsection F of 19.15.17.13 NMAC and excavate to an appropriate depth that allows for the installation of the geomembrane bottom liner, geomembrane liner cover and the division-prescribed soil cover required pursuant to Paragraphs (2) and (3) of Subsection G of 19.15.17.13 NMAC.

(2) An on-site deep trench shall have a properly constructed foundation and side walls consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear.

(3) Geotextile is required under the liner where needed to reduce localized stress-strain or protuberances that may otherwise compromise the liner's integrity.

(4) An on-site deep trench shall be constructed with a geomembrane liner. The geomembrane shall consist of a 20-mil string reinforced LLDPE liner or equivalent liner that the appropriate division district office approves. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A.

(5) The operator shall minimize liner seams and orient them up and down, not across a slope. The operator shall use factory seams where possible. The operator shall overlap liners four to six inches before seaming, and orient seams parallel to the line of maximum slope, *i.e.*, oriented along, not across, the slope. The operator shall minimize the number of field seams in corners and irregularly shaped areas. Qualified personnel shall perform field seaming.

(6) The operator shall install sufficient liner material to reduce stress-strain on the liner.

(7) The operator shall ensure that the outer edges of all liners are secured for the placement of the excavated waste material into the trench.

(8) The operator shall fold the outer edges of the trench liner to overlap the waste material in the trench prior to the installation of the geomembrane cover.

(9) The operator shall install a geomembrane cover over the excavated material in the lined trench. The operator shall install the geomembrane cover in a manner that prevents the collection of infiltration water in the lined trench and on the geomembrane cover after the soil cover is in place.

(10) The geomembrane cover shall consist of a 20-mil string reinforced LLDPE liner or equivalent cover that the appropriate division district office approves. The geomembrane cover shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. Cover compatibility shall comply with EPA SW-846 method 9090A.

[19.15.17.11 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.12 OPERATIONAL REQUIREMENTS:

A. General specifications. An operator shall maintain and operate a pit, closed-loop system, below-grade tank or sump in accordance with the following requirements.

(1) The operator shall operate and maintain a pit, closed-loop system, below-grade tank or sump to contain liquids and solids and maintain the integrity of the liner, liner system or secondary containment system, prevent contamination of fresh water and protect public health and the environment.

(2) The operator shall recycle, reuse or reclaim all drilling fluids in a manner that prevents the contamination of fresh water and protects public health and the environment.

(3) The operator shall not discharge into or store any hazardous waste in a pit, closed-loop system, below-grade tank or sump.

(4) If the integrity of the pit liner is compromised, or if any penetration of the liner occurs above the liquid's surface, then the operator shall notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the liner.

(5) If a lined pit develops a leak, or if any penetration of the liner occurs below the liquid's surface, then the operator shall remove all liquid above the damage or leak line from the pit within 48 hours and repair the damage or replace the liner.

(6) The operator shall install a level measuring device in a lined pit containing fluids to monitor the level of the fluid surface, so that the operator may recognize unanticipated change in volume of fluids.

(7) The injection or withdrawal of liquids from a lined pit shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.

(8) The operator shall operate and install a pit, below-grade tank or sump to prevent the collection of surface water run-on.

(9) The operator shall install, or maintain on site, an oil absorbent boom or other device to contain and remove oil from a pit's surface.

B. Temporary pits. An operator shall maintain and operate a temporary pit in accordance with the following additional requirements.

(1) Only fluids used or generated during the drilling or workover process may be discharged into a temporary pit. The operator shall maintain a temporary pit free of miscellaneous solid waste or debris. The operator shall use a tank made of steel or other material to contain hydrocarbon-based drilling fluids that the appropriate division district office approves. Immediately after cessation of a drilling or workover operation, the operator shall remove any visible or measurable layer of oil from the surface of a drilling or workover pit.

(2) The operator shall maintain at least two feet of freeboard for a temporary pit.

(3) The operator shall inspect a temporary pit containing drilling fluids at least daily while the drilling or workover rig is on-site. Thereafter, the operator shall inspect the temporary pit weekly so long as liquids remain in the temporary pit. The operator shall maintain a log of such inspections and make the log available for the appropriate division district office's review upon request. The operator shall file a copy of the log with the appropriate division district office when the operator closes the temporary pit.

(4) The operator shall remove all free liquids from a drilling pit within 30 days from the date that the operator releases the drilling rig. The appropriate division district office may grant an extension of up to three months.

(5) The operator shall remove all free liquids from a workover pit within 15 days from the date that the operator releases the workover rig. The appropriate division district office may grant an extension of up to three months.

C. Permanent pits. An operator shall maintain and operate a permanent pit in accordance with the following requirements.

(1) The operator shall maintain at least three feet of freeboard for a permanent pit.

(2) No oil or floating hydrocarbon shall be present in a permanent pit.

D. Below-grade tanks. The operator shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below-grade tank.

E. Sumps. The operator shall maintain and operate a sump in accordance with the following requirements.

(1) The operator shall test a sump's integrity annually and promptly repair or replace a sump that fails the integrity test.

(2) An operator shall test a sump that can be removed from its emplacement by visual inspection. The operator shall test other sumps by appropriate mechanical means.

(3) The operator shall maintain records of sump inspection and testing and make the records available for the appropriate division district office's review upon request.

[19.15.17.12 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.13 CLOSURE REQUIREMENTS:

A. Time requirements for closure. An operator shall close a pit, closed-loop system or below-grade tank within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.

(1) An existing unlined, permitted or registered permanent pit shall be closed within two years after _____[the effective date of 19.15.17 NMAC].

(2) An existing lined or unlined, permanent pit not permitted or registered shall be closed within 60 days after _____, 200_ [effective date].

(3) An existing unlined, temporary pit shall be closed within three months after _____, 200_ [effective date].

(4) An existing below-grade tank that is not equipped with secondary containment and leak detection shall be closed within five years after _____, 200_ [effective date], if not retrofitted with secondary containment and leak detection in accordance with Subsection I of 19.15.17.11 NMAC.

(5) Any other permitted permanent pit shall be closed within 60 days of cessation of operation of the permanent pit in accordance with a closure plan that the environmental bureau in the division's Santa Fe office approves.

(6) Any other permitted temporary pit shall be closed within six months from the date the operator releases the rig. The appropriate division district office may grant an extension not to exceed three months.

(7) A closed-loop system permitted under 19.15.17 NMAC or in operation on _____, 200_ [effective date], shall be closed within six months from the date the operator releases the rig. The appropriate division district office may grant an extension not to exceed six months.

(8) A permitted below-grade tank shall be closed within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves.

B. Closure methods for temporary pits. The operator of a temporary pit shall remove all liquids from the temporary pit prior to implementing a closure method and dispose of the liquids in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. The operator shall close the temporary pit by one of the following methods.

(1) Waste excavation and removal.

(a) The operator shall close the temporary pit by excavating all contents and, if applicable, synthetic pit liners and transferring those materials to a division-approved facility.

(b) The operator shall test the soils beneath the temporary pit to determine whether a release has occurred. The operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any hot spot; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(c) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

(d) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Subparagraph (b) of Paragraph (1) of Subsection B of 19.15.17.13 NMAC, then the operator shall backfill the temporary pit excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and re-vegetation requirements shall comply with Paragraphs (1) and (3) of Subsection G of 19.15.17.13 NMAC and Subsection H of 19.15.17.13 NMAC.

(2) On-site deep trench burial. The operator shall demonstrate and comply with the closure requirements and standards of Subsection F of 19.15.17.13 NMAC if the proposed closure method of a temporary pit involves on-site deep trench burial.

(3) Alternative closure methods. If the environmental bureau in the division's Santa Fe office grants an exception approving a closure method for a specific temporary pit other than as specified in Paragraphs (1) or (2) of Subsection B of 19.15.17.13 NMAC, then the operator shall close that temporary pit by the method that the environmental bureau in the division's Santa Fe office approves.

C. Closure method for permanent pits.

(1) The operator shall remove all liquids and BS&W from the permanent pit prior to implementing a closure method and shall dispose of the liquids and BS&W in a division-approved facility.

(2) The operator shall remove the pit liner system, if applicable, and dispose of it in a division-approved facility. If there is on-site equipment associated with permanent pit, the operator shall remove the equipment, unless the equipment is required for some other purpose.

(3) The operator shall test the soils beneath the permanent pit to determine whether a release has occurred. The operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any hot spot; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(4) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

(5) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (3) of Subsection C of 19.15.17.13 NMAC, then the operator shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and re-vegetation requirements shall comply with Paragraphs (1) and (3) of Subsection G of 19.15.17.13 NMAC and Subsection H of 19.15.17.13 NMAC.

D. Closure methods for closed-loop systems. An operator of a closed-loop system that uses a temporary pit, in lieu of a drying pad, shall comply with the closure requirements for temporary pits specified in Subsection B of 19.15.17.13 NMAC. The operator of a closed-loop system shall close the system by one of the following methods.

(1) Waste removal.

(a) The operator shall transfer the waste and the drying pad liner to a division-approved facility.

(b) The operator shall substantially restore and re-vegetate the impacted area's surface.

(2) On-site deep trench burial. The operator shall demonstrate and comply with the closure requirements and standards of Subsection F of 19.15.17.13 NMAC if the proposed closure method of a drying pad associated with a closed-loop system involves on-site deep trench burial.

(3) Alternative closure methods. If the environmental bureau in the division's Santa Fe office grants an exception approving a closure method for a specific closed-loop system other than as specified in Paragraphs (1) or (2) of Subsection D of 19.15.17.13 NMAC, then the operator shall close that drying pad associated with a closed-loop system by the method the environmental bureau in the division's Santa Fe office approves.

E. Closure method for below-grade tanks.

(1) The operator shall remove all liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility.

(2) The operator shall remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves.

(3) If there is any on-site equipment associated with a below-grade tank, then the operator shall remove the equipment, unless the equipment is required for some other purpose.

(4) The operator shall test the soils beneath the below-grade tank to determine whether a release has occurred. The operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any hot spot; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(5) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

(6) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then the operator shall

backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and re-vegetation requirements shall comply with Paragraphs (1) and (3) of Subsection G of 19.15.17.13 NMAC and Subsection H of 19.15.17.13 NMAC.

F. On-site closure methods. The following closure requirements and standards apply if the operator proposes a closure method for a drying pad associated with a closed-loop system or a temporary pit pursuant to Paragraph (2) of Subsection D of 19.15.17.13 NMAC or Paragraph (2) of Subsection B of 19.15.17.13 NMAC that involves on-site deep trench burial, or an alternative closure method pursuant to Paragraph (3) of Subsection D of 19.15.17.13 NMAC or Paragraph (3) of Subsection B of 19.15.17.13 NMAC and Subsection B of 19.15.17.15 NMAC.

(1) General requirements.

(a) The operator shall demonstrate, at the time of initial application for the permit, that the site where the operator proposes to implement an on-site closure method is not located within a 100 mile radius of a division-approved facility or an out-of-state waste management facility. If the operator demonstrates that neither a division-approved facility nor an out-of-state waste management facility is available within the prescribed distance, then the operator may pursue the on-site closure method.

(b) Any proposed on-site closure method shall comply with the siting criteria specified in Subsection C of 19.15.17.10 NMAC.

(c) The operator shall obtain the surface owner's written consent to the operator's proposal of an on-site closure method. The operator shall attach the original, signed consent to the permit application.

(d) The operator shall comply with the closure requirements and standards of Paragraph (2) of Subsection F of 19.15.17.13 NMAC if the proposed closure method for a drying pad associated with a closed-loop system or a temporary pit pursuant to Paragraph (2) of Subsection D of 19.15.17.13 NMAC or Paragraph (2) of Subsection B of 19.15.17.13 NMAC involves on-site deep trench burial, or an alternative closure method pursuant to Paragraph (3) of Subsection D of 19.15.17.13 NMAC or Paragraph (3) of Subsection B of 19.15.17.13 NMAC and Subsection B of 19.15.17.15 NMAC.

(e) The operator shall test the soils beneath the drying pad associated with a closed-loop system or temporary pit after excavation to determine whether a release has occurred. The operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any hot spot; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(f) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Subparagraph (e) of Paragraph (1) of Subsection F of 19.15.17.13 NMAC, then the operator shall backfill the excavation with compacted, non-waste containing earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and re-vegetation shall comply with Paragraphs (1) and (3) of Subsection G of 19.15.17.13 NMAC and Subsection H of 19.15.17.13 NMAC.

(g) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

(2) On-site deep trench burial.

(a) The operator shall demonstrate and comply with the provisions of Paragraph (1) of Subsection F of 19.15.17.13 NMAC.

(b) The operator shall use a separate on-site deep trench for closure of each drying pad associated with a closed-loop system or temporary pit.

(c) Unless the contents of the drying pad associated with a closed-loop system or temporary pit and associated waste meet the closure standards of Subparagraph (d) of Paragraph (2) of Subsection F of 19.15.17.13 NMAC, the operator shall propose a method to treat the contents and associated waste. Any proposed treatment method shall optimize waste minimization and reduce contaminant concentrations in order to protect fresh water, public health and the environment. Proposed treatment methods shall stabilize or solidify the contents to a bearing capacity sufficient to support the final cover.

(d) The operator shall collect at a minimum, a five point, composite sample of the contents of the drying pad associated with a closed-loop system or temporary pit after treatment, if treatment is required, to demonstrate that the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 2500 mg/kg. Using EPA SW-846 method 1312 or other EPA leaching procedure that the division approves, the operator shall demonstrate that the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5,000 mg/l and that the concentrations of the water contaminants specified in Subsections A and B of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsections A and B of 20.6.2.3103 NMAC, unless otherwise specified above.

(e) The operator shall construct a trench lined with a geomembrane liner located within 100 feet of the drying pad associated with a closed-loop system or temporary pit, unless the appropriate division district office approves an alternative distance and location. The operator shall design and construct the lined trench in accordance with the design and construction requirements specified in Paragraphs (1) through (8) of Subsection J of 19.15.17.11 NMAC.

(f) The operator shall close each drying pad associated with a closed-loop system or temporary pit by excavating and transferring all contents and synthetic pit liners or liner material associated with a closed-loop system or temporary pit to a lined trench. The excavated materials shall pass the paint filter liquids test (EPA SW-846, method 9095) and the closure standards specified in Subparagraph (d) of Paragraph (2) of Subsection F of 19.15.17.13 NMAC.

(g) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate. The operator may propose to transfer the excavated, contaminated soil into the lined trench.

(h) The operator shall install a geomembrane cover over the excavated material in the lined trench. The operator shall design and construct the geomembrane cover in accordance with the requirements specified in Paragraphs (9) and (10) of Subsection J of 19.15.17.11 NMAC.

(i) The operator shall cover the geomembrane lined and covered, filled, deep trench with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and re-vegetation shall comply with Paragraphs (2) and (3) of Subsection G of 19.15.17.13 NMAC and Subsection H of 19.15.17.13 NMAC.

G. Soil cover designs.

(1) The soil cover for closures where the operator has removed or remediated the contaminated soil to the division's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

(2) The soil cover for on-site deep trench burial shall consist of a minimum of four feet of compacted, non-waste containing, earthen material. The soil cover shall include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

(3) The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

H. Re-vegetation requirements:

(1) Upon completion of closure, the operator shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations, by placement of the soil cover and re-vegetation of the site, and maintain the cover established by re-vegetation, which shall not include noxious weeds, through two successive growing seasons.

(2) The operator may propose an alternative to the re-vegetation requirement if the operator demonstrates that the proposed alternative effectively prevents erosion, and protects fresh water, human health and the environment. The proposed alternative shall be agreed upon by the surface owner. The operator shall submit the proposed alternative, with written documentation that the surface owner agrees to the alternative, to the division for approval.

I. Closure notice.

(1) The operator shall notify the surface owner by certified mail, return receipt requested, that the operator plans to close a temporary pit, a permanent pit, a below-grade tank or where the operator has approval for on-site closure. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this requirement.

(2) The operator of a temporary pit or below-grade tank or an operator who is approved for on-site closure shall notify the appropriate division district office verbally or by other means at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the operator's name and the location to be

closed by unit letter, section, township and range. If the closure is associated with a particular well, then the notice shall also include the well's name, number and API number.

(3) An operator of a permanent pit shall notify the environmental bureau in the division's Santa Fe office at least 60 days prior to cessation of operations and provide a proposed schedule for closure. If there is no closure plan on file with the environmental bureau in the division's Santa Fe office applicable to the permanent pit, the operator shall provide a closure plan with this notice. Upon receipt of the notice and proposed schedule, the environmental bureau in the division's Santa Fe office shall review the current closure plan for adequacy and inspect the site.

J. Closure report. Within 60 days of closure completion, the operator shall submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan; and details on back-filling, capping and covering, where applicable. In the closure report, the operator shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in the approved closure plan.

[19.15.17.13 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.14 EMERGENCY ACTIONS:

A. Permit not required. In an emergency an operator may construct a pit without a permit to contain fluids, solids or wastes, if an immediate danger to fresh water, public health or the environment exists.

B. Construction standards. The operator shall construct a pit during an emergency, to the extent possible given the emergency, in a manner that is consistent with the requirements for a temporary pit specified in 19.15.17 NMAC and that prevents the contamination of fresh water and protect public health and the environment.

C. Notice. The operator shall notify the appropriate division district office as soon as possible (if possible before construction begins) of the need for such pit's construction.

D. Use and duration. A pit constructed in an emergency may be used only for the emergency's duration. If the emergency lasts more than 48 hours, then the operator shall seek the appropriate division district office's approval for the pit's continued use. The operator shall remove all fluids, solids or wastes within 48 hours after cessation of use unless the appropriate division district office extends that time period.

E. Emergency pits. 19.15.17.14 NMAC does not authorize construction or use of a so-called "emergency pit". Construction or use of any such pit requires a permit issued pursuant to 19.15.17 NMAC, unless the pit is described in a spill prevention, control and countermeasure plan the EPA requires, the operator removes all fluids from the pit within 48 hours and the operator has filed a notice of the pit's location with the appropriate division district office.

[19.15.17.14 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.15 EXCEPTIONS:

A. General exceptions.

(1) The operator may apply to the environmental bureau in the division's Santa Fe office for an exception to a requirement or provision of 19.15.17 NMAC other than the permit requirements of 19.15.17.8 NMAC; the closure requirement of Subparagraph (c) of Paragraph (1) of Subsection F of 19.15.17.13 NMAC; the exception requirements of 19.15.17.15 NMAC; or the permit approval, condition, denial, revocation, suspension, modification or transfer requirements of 19.15.17.16 NMAC. The environmental bureau in the division's Santa Fe office may grant an exception from a requirement or provision of 19.15.17 NMAC, if the operator demonstrates to the satisfaction of the environmental bureau in the division's Santa Fe office that the granting of the exception provides equivalent or better protection of fresh water, public health and the environment. The environmental bureau in the division's Santa Fe office may revoke an exception after notice to the operator of the pit, closed-loop system, below-grade tank or other proposed alternative and to the surface owner, and opportunity for a hearing, or without notice and hearing in event of an emergency involving imminent danger to fresh water, public health or the environment, subject to the provisions of NMSA 1978, Section 70-2-23, if the environmental bureau in the division's Santa Fe office determines that such action is necessary to prevent the contamination of fresh water, or to protect public health or the environment.

(2) The operator shall give written notice by certified mail, return receipt requested, to the surface owner of record where the pit, closed-loop system, below-grade tank or other proposed alternative is, or will be, located, and to such other persons as the environmental bureau in the division's Santa Fe office may direct by certified mail, return receipt requested, and issue public notice. The operator shall issue public notice by publication one time in a newspaper of general circulation in the county where the pit, closed-loop system, below-grade tank or

other proposed alternative will be located. Required written and public notices require the environmental bureau in the division's Santa Fe office's approval. The environmental bureau in the division's Santa Fe office may grant the exception administratively if either the operator files with the environmental bureau in the division's Santa Fe office written waivers from all persons to whom notice is required or the environmental bureau in the division's Santa Fe office receives no objection within 30 days of the time the applicant gives notice. If the environmental bureau in the division's Santa Fe office receives an objection and the director determines that the objection has technical merit or that there is significant public interest, then the director may set the application for hearing. The director, however, may set any application for hearing. If the environmental bureau in the division's Santa Fe office schedules a hearing on an application, the hearing shall be conducted according to 19.15.14.1206 through 19.15.14.1215 NMAC.

(3) If the director does not determine that a hearing is necessary due to an objection's technical merit, significant public interest or otherwise, then the environmental bureau in the division's Santa Fe office may grant the exception without a hearing notwithstanding the filing of an objection. If, however, the environmental bureau in the division's Santa Fe office determines to deny the exception, then it shall notify the operator of its determination by certified mail, return receipt requested, and if the operator requests a hearing within 10 days after receipt of such notice shall set the matter for hearing, with notice to the operator and to any party who has filed an objection to the proposed exception.

B. Alternative closure methods. The operator of a temporary pit or a closed-loop system may apply to the environmental bureau in the division's Santa Fe office for an exception to the closure methods specified in Paragraphs (1) and (2) of Subsection B of 19.15.17.13 NMAC or Paragraphs (1) and (2) of Subsection D of 19.15.17.13 NMAC. The environmental bureau in the division's Santa Fe office may grant the proposed exception if all of the following requirements are met.

(1) The operator demonstrates that the proposed alternative method provides equivalent or better protection of fresh water, public health and the environment.

(2) The operator shall remove all liquids prior to implementing a closure method and dispose of the liquids in a division-approved facility or recycle or reuse the liquids in a manner that the environmental bureau in the division's Santa Fe office approves.

(3) The operator demonstrates to the of satisfaction the environmental bureau in the division's Santa Fe office that any proposed alternative closure method will implement one or more of the following practices as approved by the environmental bureau in the division's Santa Fe office: waste minimization; treatment using best demonstrated available technology; reclamation; reuse; recycling; or reduction in available contaminant concentration; and such conditions as the environmental bureau in the division's Santa Fe office deems relevant in order to protect fresh water, public health and the environment.

(4) The provisions of Subsection A of 19.15.17.15 NMAC shall apply to applications for exceptions pursuant to Subsection B of 19.15.17.15 NMAC.

[19.15.17.15 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.16 PERMIT APPROVALS, CONDITIONS, DENIALS, REVOCATIONS, SUSPENSIONS, MODIFICATIONS OR TRANSFERS:

A. The division shall review all applications to permit facilities subject to 19.15.17 NMAC, and may approve, deny or approve an application with conditions. If the division denies an application or approves the application subject to conditions not expressly provided by the Oil and Gas Act or in 19.15 NMAC, then the division shall notify the applicant by certified mail, return receipt requested, and shall set the matter for hearing if the applicant so requests within 10 days after receipt of such notification.

B. Granting of permit. The division shall issue a permit upon finding that an operator has filed an acceptable application and that the proposed construction, operation and closure of a pit, closed-loop system, below-grade tank or other proposed alternative will comply with applicable statutes and rules and will not endanger fresh water, public health, safety or the environment.

C. Conditions. The division may impose conditions or requirements that it determines are necessary and proper for the protection of fresh water, public health, safety or the environment. The division shall incorporate such additional conditions or requirements into the permit.

D. Denial of application. The division may deny an application for a permit if it finds that the application and materials that the operator submitted for consideration with the application do not sufficiently demonstrate that the operator can construct, operate and close the proposed pit, closed-loop system, below-grade tank or other proposed alternative without detriment to fresh water, public health, safety or the environment.

E. Revocation, suspension or modification of a permit. The operator may apply to the division for a modification of the permit pursuant 19.15.17 NMAC. The operator shall demonstrate that the proposed modification complies with the applicable provisions of 19.15.17 NMAC. The division may revoke, suspend or impose additional operating conditions or limitations on a permit at any time, after notice and opportunity for a hearing, if the division determines that the operator or the permitted facility is in material breach of any applicable statutes or rules, or that such action is necessary for the protection of fresh water, public health or the environment. The division shall notify the operator by certified mail, return receipt requested, of any intended revocation, suspension or imposition of addition conditions, and the operator shall have 10 days after receipt of notification to request a hearing. The division may suspend a permit or impose additional conditions or limitations without hearing in an emergency to forestall an imminent threat to fresh water, public health, safety or the environment, subject to the provisions of NMSA 1978, Section 70-2-23, as amended.

F. Transfer of a permit. The operator shall not transfer a permit without the division's prior written approval. The division's approval of an application to transfer a well or other facility with which a permitted pit, below-grade tank or closed-loop system is associated shall constitute approval of the transfer of the permit for the pit, below-grade tank or closed-loop system. In all other cases, the operator and the transferee shall apply for approval to transfer the permit to the division office to which permit applications for the type of facility involved are directed.

G. Division approvals. The division shall grant or confirm any division approval authorized by a provision of 19.15.17 NMAC by written statement.

[19.15.17.16 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.17.17 TRANSITIONAL PROVISIONS:

A. After _____, 200_ [effective date], unlined temporary pits are prohibited.

B. An operator of an existing operation that is required to close pursuant to Paragraphs (1), (2), (3) or (4) of Subsection A of 19.15.17.13 NMAC shall submit a closure plan pursuant to Subsection C of 19.15.17.9 NMAC to the division not later than 30 days after _____, 200_ [effective date].

C. An operator of an existing lined, permitted or registered, permanent pit shall comply with the construction requirements of 19.15.17 NMAC within two years after _____, 200_ [effective date]. Prior to complying with the construction requirements of 19.15.17 NMAC, an operator of an existing lined, permitted, permanent pit shall request a modification pursuant to Subsection E of 19.15.17.16 NMAC; and an operator of an existing lined, registered, permanent pit shall apply to the division for a permit pursuant to 19.15.17 NMAC.

D. An operator of an existing below-grade tank shall comply with the permitting requirements of 19.15.17 NMAC within 90 days after _____, 200_ [effective date]. Prior to complying with the construction requirements of 19.15.17 NMAC, an operator of an existing below-grade tank shall request a permit modification pursuant to Subsection E of 19.15.17.16 NMAC.

E. An operator of an existing pit or below-grade tank permitted prior to _____, 200_, [effective date of 19.15.17 NMAC] may continue to operate in accordance with such permits or orders, subject to the following provisions.

(1) An operator of an existing lined, permitted or registered, permanent pit shall comply with the operational and closure requirements of 19.15.17 NMAC.

(2) An operator of an existing permitted or registered, temporary pit shall comply with the operational and closure requirements of 19.15.17 NMAC.

(3) An operator of an existing below-grade tank shall comply with the operational and closure requirements of 19.15.17 NMAC.

(4) The operator shall bring an existing below-grade tank that does not comply with the design and construction requirements of 19.15.17 NMAC into compliance with those requirements or close it within five years after _____, 200_ [effective date].

F. The operator may continue to operate an existing closed-loop system without applying for a permit, but the operator shall close such system in accordance with the closure requirements of 19.15.17.13 NMAC.

G. An operator of an existing sump shall comply with the operational requirements of 19.15.17 NMAC.

[19.15.17.17 NMAC - Rp, 19.15.2.50 NMAC, / /07]

19.15.1.7 DEFINITIONS:

A. Definitions beginning with the letter "A".

(1) Abate or abatement shall mean the investigation, containment, removal or other mitigation of water pollution.

(2) Abatement plan shall mean a description of any operational, monitoring, contingency and closure requirements and conditions for the prevention, investigation and abatement of water pollution.

(3) Adjoining spacing units are those existing or prospective spacing units in the same pool that are touching at a point or line on the spacing unit that is the subject of the application.

(4) Adjusted allowable shall mean the allowable production a well or proration unit receives after all adjustments are made.

(5) Allocated pool is one in which the total oil or natural gas production is restricted and allocated to various wells therein in accordance with proration schedules.

(6) Allowable production shall mean that number of barrels of oil or standard cubic feet of natural gas authorized by the division to be produced from an allocated pool.

(7) Approved temporary abandonment shall be the status of a well that is inactive, has been approved in accordance with 19.15.4.203 NMAC and is in compliance with 19.15.4.203 NMAC.

(8) Aquifer shall mean a geological formation, group of formations or a part of a formation that is capable of yielding a significant amount of water to a well or spring.

(9) ASTM means ASTM International - an international standards developing organization that develops and publishes voluntary technical standards for a wide range of materials, products, systems, and services.

B. Definitions beginning with the letter "B".

(1) Back allowable shall mean the authorization for production of a shortage or underproduction resulting from pipeline proration.

(2) Background shall mean, for purposes of ground water abatement plans only, the amount of ground water contaminants naturally occurring from undisturbed geologic sources or water contaminants occurring from a source other than the responsible person's facility. This definition shall not prevent the director from requiring abatement of commingled plumes of pollution, shall not prevent responsible persons from seeking contribution or other legal or equitable relief from other persons and shall not preclude the director from exercising enforcement authority under any applicable statute, regulation or common law.

(3) Barrel shall mean 42 United States gallons measured at 60 degrees fahrenheit and atmospheric pressure at the sea level.

(4) Barrel of oil shall mean 42 United States gallons of oil, after deductions for the full amount of basic sediment, water and other impurities present, ascertained by centrifugal or other recognized and customary test.

(5) Below-grade tank [~~shall mean~~]means a vessel, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls is below the [~~ground surface and not visible~~]surrounding ground surface's elevation.

(6) Berm shall mean an embankment or ridge constructed to prevent the movement of liquids, sludge, solids or other materials.

(7) Biopile, also known as biocell, bioheap, biomound or compost pile, shall mean a pile of contaminated soils used to reduce concentrations of petroleum constituents in excavated soils through the use of biodegradation. This technology involves heaping contaminated soils into piles or "cells" and stimulating aerobic microbial activity within the soils through the aeration or addition of minerals, nutrients and moisture.

(8) Bottom hole or subsurface pressure shall mean the gauge pressure in pounds per square inch under conditions existing at or near the producing horizon.

(9) Bradenhead gas well shall mean a well producing gas through wellhead connections from a gas reservoir that has been successfully cased off from an underlying oil or gas reservoir.

(10) BS&W means basic sediments and water.

(11) BTEX means benzene, toluene, ethylbenzene and xylenes.

C. Definitions beginning with the letter "C".

(1) Carbon dioxide gas shall mean noncombustible gas composed chiefly of carbon dioxide occurring naturally in underground rocks.

(2) Casinghead gas shall mean any gas or vapor or both gas and vapor indigenous to and produced from a pool classified as an oil pool by the division. This also includes gas-cap gas produced from such an oil pool.

(3) Cm/sec means centimeters per second.

[~~(3)~~](4) Commission shall mean the oil conservation commission.

[~~(4)~~](5) Commission clerk means the oil conservation division employee the division director designates to provide staff support to the commission, and accept filings in rulemaking or adjudicatory cases before the commission.

[~~(5)~~](6) Common purchaser for natural gas shall mean any person now or hereafter engaged in purchasing from one or more producers gas produced from gas wells within each common source of supply from which it purchases.

[~~(6)~~](7) Common purchaser for oil shall mean every person now engaged or hereafter engaging in the business of purchasing oil to be transported through pipelines.

[~~(7)~~](8) Common source of supply. See pool.

[~~(8)~~](9) Condensate shall mean the liquid recovered at the surface that results from condensation due to reduced pressure or temperature of petroleum hydrocarbons existing in a gaseous phase in the reservoir.

[~~(9)~~](10) Contiguous shall mean acreage joined by more than one common point, that is, the common boundary must be at least one side of a governmental quarter-quarter section.

[~~(10)~~](11) Conventional completion shall mean a well completion in which the production string of casing has an outside diameter in excess of 2.875 inches.

[~~(11)~~](12) Correlative rights shall mean the opportunity afforded, as far as it is practicable to do so, to the owner of each property in a pool to produce without waste his just and equitable share of the oil or gas, or both, in the pool, being an amount, so far as can be practically determined, and so far as can be practicably obtained without waste, substantially in the proportion that the quantity of recoverable oil or gas, or both, under such property bears to the total recoverable oil or gas, or both, in the pool, and for such purpose to use his just and equitable share of the reservoir energy.

[~~(12)~~](13) Cubic feet of gas or standard cubic foot of gas, for the purpose of these rules, shall mean that volume of gas contained in one cubic foot of space and computed at a base pressure of 10 ounces per square inch above the average barometric pressure of 14.4 pounds per square inch (15.025 psia), at a standard base temperature of 60 degrees fahrenheit.

D. Definitions beginning with the letter "D".

(1) Deep pool shall mean a common source of supply which is situated 5000 feet or more below the surface.

(2) Depth bracket allowable shall mean the basic oil allowable assigned to a pool and based on its depth, unit size or special pool rules, which, when multiplied by the market demand percentage factor in effect, will determine the top unit allowable for the pool.

(3) Director shall mean the director of the oil conservation division of the New Mexico energy, minerals and natural resources department.

(4) Division shall mean the oil conservation division of the New Mexico energy, minerals and natural resources department.

(5) Division clerk means the oil conservation division employee the division director designates to accept filings in adjudicatory cases before the division.

(6) Downstream facility means a facility associated with the transportation (including gathering) or processing of gas or oil (including a refinery, gas plant, compressor station or crude oil pump station); brine production; or the oil field service industry.

(7) DRO means diesel range organics.

E. Definitions beginning with the letter "E".

(1) EPA means the United States environmental protection agency.

[~~(1)~~](2) Exempted aquifer shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because:

(a) it is hydrocarbon producing;

(b) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or,

(c) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

[~~(2)~~](3) Existing spacing unit is a spacing unit containing a producing well.

F. Definitions beginning with the letter "F".

(1) Facility shall mean any structure, installation, operation, storage tank, transmission line, access

road, motor vehicle, rolling stock or activity of any kind, whether stationary or mobile.

(2) Field means the general area which is underlaid or appears to be underlaid by at least one pool; and field also includes the underground reservoir or reservoirs containing such crude petroleum oil or natural gas, or both. The words field and pool mean the same thing when only one underground reservoir is involved; however, field unlike pool may relate to two or more pools.

(3) Fresh water (to be protected) includes the water in lakes and playas, the surface waters of all streams regardless of the quality of the water within any given reach and all underground waters containing 10,000 milligrams per liter (mg/l) or less of total dissolved solids (TDS) except for which, after notice and hearing, it is found there is no present or reasonably foreseeable beneficial use which would be impaired by contamination of such waters. The water in lakes and playas shall be protected from contamination even though it may contain more than 10,000 mg/l of TDS unless it can be shown that hydrologically connected fresh ground water will not be adversely affected.

G. Definitions beginning with the letter "G".

(1) Gas lift shall mean any method of lifting liquid to the surface by injecting gas into a well from which oil production is obtained.

(2) Gas-oil ratio shall mean the ratio of the casinghead gas produced in standard cubic feet to the number of barrels of oil concurrently produced during any stated period.

(3) Gas-oil ratio adjustment shall mean the reduction in allowable of a high gas oil ratio unit to conform with the production permitted by the limiting gas-oil ratio for the particular pool during a particular proration period.

(4) Gas transportation facility shall mean a pipeline in operation serving gas wells for the transportation of natural gas, or some other device or equipment in like operation whereby natural gas produced from gas wells connected therewith can be transported or used for consumption.

(5) Gas well shall mean a well producing gas or natural gas from a gas pool, or a well with a gas-oil ratio in excess of 100,000 cubic feet of gas per barrel of oil producing from an oil pool.

(6) Geomembrane means an impermeable polymeric sheet material that is impervious to liquid and gas as long as it maintains its integrity, and is used as an integral part of an engineered structure designed to limit the movement of liquid or gas in a system.

(7) Geotextile means a sheet material that is less impervious to liquid than a geomembrane but more resistant to penetration damage, and is used as part of an engineered structure or system to serve as a filter to prevent the movement of soil fines into a drainage system, to provide planar flow for drainage, to serve as a cushion to protect geomembranes or to provide structural support.

(8) GRO means gasoline range organics.

[~~(6)~~]**(9)** Ground water shall mean interstitial water which occurs in saturated earth material and which is capable of entering a well in sufficient amounts to be utilized as a water supply.

[~~(7)~~]**(10)** Ground water sensitive area shall mean an area specifically so designated by the division after evaluation of technical evidence where ground water exists that would likely exceed water quality control commission standards if contaminants were introduced into the environment.

H. Definitions beginning with the letter "H".

(1) Hazard to public health exists when water which is used or is reasonably expected to be used in the future as a human drinking water supply exceeds at the time and place of such use, one or more of the numerical standards of Subsection A of 20.6.2.3103 NMAC, or the naturally occurring concentrations, whichever is higher, or if any toxic pollutant as defined at Subsection VV of 20.6.2.7 NMAC affecting human health is present in the water. In determining whether a release would cause a hazard to public health to exist, the director shall investigate and consider the purification and dilution reasonably expected to occur from the time and place of release to the time and place of withdrawal for use as human drinking water.

(2) HDPE means high-density polyethylene.

(3) H_2S means hydrogen sulfide.

[~~(2)~~]**(4)** High gas-oil ratio proration unit shall mean a unit with at least one producing oil well with a gas-oil ratio in excess of the limiting gas-oil ratio for the pool in which the unit is located.

I. Definitions beginning with the letter "I".

(1) Illegal gas shall mean natural gas produced from a gas well in excess of the allowable determined by the division.

(2) Illegal oil shall mean crude petroleum oil produced in excess of the allowable as fixed by the

division.

(3) Illegal product shall mean any product of illegal gas or illegal oil.

(4) Inactive well shall be a well which is not being utilized for beneficial purposes such as production, injection or monitoring and which is not being drilled, completed, repaired or worked over.

(5) Injection or input well shall mean any well used for the injection of air, gas, water or other fluids into any underground stratum.

J. Reserved.

K. Definitions beginning with the letter "K". Knowingly and willfully, for the purpose of assessing civil penalties, shall mean the voluntary or conscious performance of an act that is prohibited or the voluntary or conscious failure to perform an act or duty that is required. It does not include performances or failures to perform that are honest mistakes or merely inadvertent. It includes, but does not require, performances or failures to perform that result from a criminal or evil intent or from a specific intent to violate the law. The conduct's knowing and willful nature may be established by plain indifference to or reckless disregard of the requirements of the law, rules, orders or permits. A consistent pattern or performance or failure to perform also may be sufficient to establish the conduct's knowing and willful nature, where such consistent pattern is neither the result of honest mistakes nor mere inadvertency. Conduct that is otherwise regarded as being knowing and willful is rendered neither accidental nor mitigated in character by the belief that the conduct is reasonable or legal.

L. Definitions beginning with the letter "L".

(1) Limiting gas-oil ratio shall mean the gas-oil ratio assigned by the division to a particular oil pool to limit the volumes of casinghead gas which may be produced from the various oil producing units within that particular pool.

(2) Liner means a continuous, low-permeability layer constructed of natural or human-made materials that restricts the migration of liquid oil field wastes, gases or leachate.

(3) LLDPE means linear low-density polyethylene.

[~~(2)~~]**(4)** Load oil is any oil or liquid hydrocarbon which has been used in remedial operation in any oil or gas well.

[~~(3)~~]**(5)** Log or well log shall mean a systematic detailed and correct record of formations encountered in the drilling of a well.

M. Definitions beginning with the letter "M".

(1) Marginal unit shall mean a proration unit which is incapable of producing top unit allowable for the pool in which it is located.

(2) Market demand percentage factor shall mean that percentage factor of 100 percent or less as determined by the division at an oil allowable hearing, which, when multiplied by the depth bracket allowable applicable to each pool, will determine the top unit allowable for that pool.

(3) Mg/l means milligrams per liter.

(4) Mg/kg means milligrams per kilogram.

[~~(3)~~]**(5)** Mineral estate is the most complete ownership of oil and gas recognized in law and includes all the mineral interests and all the royalty interests.

[~~(4)~~]**(6)** Mineral interest owners are owners of an interest in the executive rights, which are the rights to explore and develop, including oil and gas lessees (i.e., "working interest owners") and mineral interest owners who have not signed an oil and gas lease.

[~~(5)~~]**(7)** Minimum allowable shall mean the minimum amount of production from an oil or gas well which may be advisable from time to time to the end that production will repay reasonable lifting cost and thus prevent premature abandonment and resulting waste.

[~~(6)~~]**(8)** Multiple completion (combination) shall mean a multiple completion in which two or more common sources of supply are produced through a combination of two or more conventional diameter casing strings cemented in a common well-bore, or a combination of small diameter and conventional diameter casing strings cemented in a common well-bore, the conventional diameter strings of which might or might not be a multiple completion (conventional).

[~~(7)~~]**(9)** Multiple completion (conventional) shall mean a completion in which two or more common sources of supply are produced through one or more strings of tubing installed within a single casing string, with the production from each common source of supply completely segregated by means of packers.

[~~(8)~~]**(10)** Multiple completion (tubingless) shall mean completion in which two or more common sources of supply are produced through an equal number of casing strings cemented in a common well-bore, each

such string of casing having an outside diameter of 2.875 inches or less, with the production from each common source of supply completely segregated by use of cement.

N. Definitions beginning with the letter "N".

(1) Natural gas or gas shall mean any combustible vapor composed chiefly of hydrocarbons occurring naturally in a pool classified by the division as a gas pool.

(2) Non-aqueous phase liquid shall mean an interstitial body of liquid oil, petroleum product, petrochemical or organic solvent, including an emulsion containing such material.

(3) Non-marginal unit shall mean a proration unit which is capable of producing top unit allowable for the pool in which it is located, and to which has been assigned a top unit allowable.

O. Definitions beginning with the letter "O".

(1) Official gas-oil ratio test shall mean the periodic gas-oil ratio test made by division order by such method and means and in such manner as the division prescribes.

(2) Oil, crude oil or crude petroleum oil shall mean petroleum hydrocarbon produced from a well in the liquid phase and that existed in a liquid phase in the reservoir.

(3) Oil field waste shall mean waste generated in conjunction with the exploration for, drilling for, production of, refining of, processing of, gathering of or transportation of crude oil, natural gas or carbon dioxide; waste generated from oil field service company operations; and waste generated from oil field remediation or abatement activity regardless of the date of release. Oil field waste does not include waste not generally associated with oil and gas industry operations such as tires, appliances or ordinary garbage or refuse unless generated at a division-regulated facility, and does not include sewage, regardless of the source.

(4) Oil well shall mean a well capable of producing oil and that is not a gas well as defined in Paragraph (5) of Subsection G of 19.15.1.7 NMAC.

(5) Operator shall mean a person who, duly authorized, is in charge of the development of a lease or the operation of a producing property, or who is in charge of a facility's operation or management.

(6) Overage or overproduction shall mean the amount of oil or the amount of natural gas produced during a proration period in excess of the amount authorized on the proration schedule.

(7) Owner shall mean the person who has the right to drill into and to produce from a pool, and to appropriate the production either for himself or for himself and another.

P. Definitions beginning with the letter "P".

(1) Penalized unit shall mean a proration unit to which, because of an excessive gas-oil ratio, an allowable has been assigned which is less than top unit allowable for the pool in which it is located and also less than the ability of the well(s) on the unit to produce.

(2) Person shall mean an individual or any other entity including partnerships, corporation, associations, responsible business or association agents or officers, the state or a political subdivision of the state or any agency, department or instrumentality of the United States and any of its officers, agents or employees.

(3) Pit shall mean any surface or sub-surface impoundment, man-made or natural depression or diked area on the surface. Excluded from this definition are berms constructed around tanks or other facilities solely for the purpose of safety and secondary containment.

(4) Playa lake shall mean a level or nearly level area that occupies the lowest part of a completely closed basin and that is covered with water at irregular intervals, forming a temporary lake.

(5) Pool means any underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both. Each zone of a general structure, which zone is completely separated from any other zone in the structure, is covered by the word "pool" as used herein. "Pool" is synonymous with "common source of supply" and with "common reservoir".

(6) Potential shall mean the properly determined capacity of a well to produce oil, or gas, or both, under conditions prescribed by the division.

(7) Pressure maintenance shall mean the injection of gas or other fluid into a reservoir, either to maintain the existing pressure in such reservoir or to retard the natural decline in the reservoir pressure.

(8) Produced water shall mean those waters produced in conjunction with the production of crude oil and/or natural gas and commonly collected at field storage, processing or disposal facilities including but not limited to: lease tanks, commingled tank batteries, burn pits, LACT units and community or lease salt water disposal systems and which may be collected at gas processing plants, pipeline drips and other processing or transportation facilities.

(9) Producer shall mean the owner of a well or wells capable of producing oil or natural gas or both in

paying quantities.

(10) Product means any commodity or thing made or manufactured from crude petroleum oil or natural gas, and all derivatives of crude petroleum oil or natural gas, including refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, treated crude oil, fuel oil, residuum, gas oil, naphtha, distillate, gasoline, kerosene, benzene, wash oil, lubricating oil, and blends or mixtures of crude petroleum oil or natural gas or any derivative thereof.

(11) Proration day shall consist of 24 consecutive hours which shall begin at 7 a.m. and end at 7 a.m. on the following day.

(12) Proration month shall mean the calendar month which shall begin at 7 a.m. on the first day of such month and end at 7 a.m. on the first day of the next succeeding month.

(13) Proration period shall mean for oil the proration month and for gas the twelve-month period which shall begin at 7 a.m. on January 1 of each year and end at 7 a.m. on January 1 of the succeeding year or other period designated by general or special order of the division.

(14) Proration schedule shall mean the order of the division authorizing the production, purchase and transportation of oil, casinghead gas and natural gas from the various units of oil or of natural gas in allocated pools.

(15) Proration unit is the area in a pool that can be effectively and efficiently drained by one well as determined by the division or commission (See NMSA 1978 Section 70-2-17.B) as well as the area assigned to an individual well for the purposes of allocating allowable production pursuant to a prorationing order for the pool. A proration unit will be the same size and shape as a spacing unit. All proration units are spacing units but not all spacing units are proration units.

(16) Prospective spacing unit is a hypothetical spacing unit that does not yet have a producing well.

(17) PVC means poly vinyl chloride.

(18) Psi means pounds per square inch.

Q. Reserved.

R. Definitions beginning with the letter "R".

(1) Recomplete shall mean the subsequent completion of a well in a different pool from the pool in which it was originally completed.

(2) Regulated naturally occurring radioactive material (regulated NORM) shall mean naturally occurring radioactive material (NORM) contained in any oil-field soils, equipment, sludges or any other materials related to oil-field operations or processes exceeding the radiation levels specified in 20.3.14.1403 NMAC.

(3) Release shall mean all breaks, leaks, spills, releases, fires or blowouts involving crude oil, produced water, condensate, drilling fluids, completion fluids or other chemical or contaminant or mixture thereof, including oil field wastes and natural gases to the environment.

(4) Remediation plan shall mean a written description of a program to address unauthorized releases. The plan may include appropriate information, including assessment data, health risk demonstrations and corrective action(s). The plan may also include an alternative proposing no action beyond the submittal of a spill report.

(5) Responsible person shall mean the owner or operator who must complete division approved corrective action for pollution from releases.

(6) Royalty interest owners are owners of an interest in the non-executive rights including lessors, royalty interest owners and overriding royalty interest owners. Royalty interests are non-cost bearing.

(7) Run-on means rainwater, leachate or other liquid that drains from other land on to any part of a division-approved facility.

S. Definitions beginning with the letter "S".

(1) Secondary recovery shall mean a method of recovering quantities of oil or gas from a reservoir which quantities would not be recoverable by ordinary primary depletion methods.

(2) Shallow pool shall mean a pool that has a depth range from zero to 5000 feet.

(3) Shortage or underproduction shall mean the amount of oil or the amount of natural gas during a proration period by which a given proration unit failed to produce an amount equal to that authorized in the proration schedule.

(4) Shut-in shall be the status of a production well or an injection well that is temporarily closed down, whether by closing a valve or disconnection or other physical means.

(5) Shut-in pressure shall mean the gauge pressure noted at the wellhead when the well is completely shut in, not to be confused with bottom hole pressure.

(6) Significant modification of an abatement plan shall mean a change in the abatement technology

used excluding design and operational parameters, or relocation of 25 percent or more of the compliance sampling stations, for a single medium, as designated pursuant to Item (iv) of Subparagraph (b) of Paragraph (4) of Subsection E of 19.15.5.19 NMAC.

(7) Soil shall mean earth, sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks, and which may or may not contain organic matter.

(8) Spacing unit shall mean the area allocated to a well under a well spacing order or rule. Under the Oil and Gas Act, NMSA 1978, Section 70-2-12.B(10), the commission has the power to fix spacing units without first creating proration units. See *rutter & wilbanks corp. v. oil conservation comm'n*, 87 NM 286 (1975). This is the area designated on division form C-102.

(9) Subsurface water shall mean ground water and water in the vadose zone that may become ground water or surface water in the reasonably foreseeable future or may be utilized by vegetation.

(10) Surface waste management facility [~~shall mean~~]means a facility that receives oil field waste for collection, disposal, evaporation, remediation, reclamation, treatment or storage except:

(a) a facility that utilizes underground injection wells subject to division regulation pursuant to the federal Safe Drinking Water Act, and does not manage oil field wastes on the ground in pits, ponds, below-grade tanks or land application units;

(b) a facility permitted pursuant to environmental improvement board rules or water quality control commission rules;

(c) [~~a drilling or workover pit as defined in 19.15.2.50 NMAC~~]a temporary pit as defined in 19.15.17 NMAC;

(d) a [~~tank~~]below-grade tank or pit that receives oil field waste from a single well, permitted pursuant to 19.15.17 NMAC, regardless of the capacity or volume of oil field waste received;

(e) a facility located at an oil and gas production facility and used for temporary storage of oil field waste generated on-site from normal operations, if such facility does not poses a threat to fresh water, public health, safety or the environment;

(f) a remediation conducted in accordance with a division-approved abatement plan pursuant to 19.15.1.19 NMAC, a corrective action pursuant to 19.15.3.116 NMAC or a corrective action of a non-reportable release;

(g) a facility operating pursuant to an emergency order of the division;

(h) a site or facility where the operator is conducting emergency response operations to abate an immediate threat to fresh water, public health, safety or the environment or as the division has specifically directed or approved; or

(i) a facility that receives only exempt oil field waste, receives less than 50 barrels of liquid water per day (averaged over a 30-day period), has a capacity to hold 500 barrels of liquids or less and is permitted pursuant to [~~19.15.2.50 NMAC~~]19.15.17 NMAC.

T. Definitions beginning with the letter "T".

(1) Tank bottoms shall mean that accumulation of hydrocarbon material and other substances that settles naturally below crude oil in tanks and receptacles that are used in handling and storing of crude oil, and which accumulation contains in excess of two percent of basic sediment and water; provided, however, that with respect to lease production and for lease storage tanks, a tank bottom shall be limited to that volume of the tank in which it is contained that lies below the bottom of the pipeline outlet thereto.

(2) Temporary abandonment shall be the status of a well that is inactive.

(3) Top unit allowable for gas shall mean the maximum number of cubic feet of natural gas, for the proration period, allocated to a gas producing unit in an allocated gas pool.

(4) Top unit allowable for oil shall mean the maximum number of barrels for oil daily for each calendar month allocated on a proration unit basis in a pool to non-marginal units. The top unit allowable for a pool shall be determined by multiplying the applicable depth bracket allowable by the market demand percentage factor in effect.

(5) TPH means total petroleum hydrocarbons.

[~~(5)~~](6) Treating plant shall mean any plant constructed for the purpose of wholly or partially or being used wholly or partially for reclaiming, treating, processing or in any manner making tank bottoms or any other waste oil marketable.

[~~(6)~~](7) Tubingless completion shall mean a well completion in which the production string of casing has an outside diameter of 2.875 inches or less.

U. Definitions beginning with the letter "U".

(1) Underground source of drinking water shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

(2) Unit of proration for gas shall consist of such multiples of 40 acres as may be prescribed by special pool rules issued by the division.

(3) Unit of proration for oil shall consist of one 40-acre tract or such multiples of 40-acre tracts as may be prescribed by special pool rules issued by the division.

(4) Unorthodox well location shall mean a location which does not conform to the spacing requirements established by the rules and regulations of the division.

(5) Unstable area means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of a division-approved facility's structural components. Examples of unstable areas are areas of poor foundation conditions, areas susceptible to mass earth movements and Karst terrain areas where Karst topography is developed as a result of dissolution of limestone, dolomite or other soluble rock. Characteristic physiographic features of Karst terrain include sinkholes, sinking streams, caves, large springs and blind valleys.

(6) Upstream facility means a facility or operation associated with the exploration, development, production or storage of oil or gas that is not a downstream facility.

V. Definitions beginning with the letter "V". Vadose zone shall mean unsaturated earth material below the land surface and above ground water, or in between bodies of ground water.

W. Definitions beginning with the letter "W".

(1) Waste, in addition to its ordinary meaning, shall include:

(a) underground waste as those words are generally understood in the oil and gas business, and in any event to embrace the inefficient, excessive or improper use or dissipation of the reservoir energy, including gas energy and water drive, of a pool, and the locating, spacing, drilling, equipping, operating or producing of a well or wells in a manner to reduce or tend to reduce the total quantity of crude petroleum oil or natural gas ultimately recovered from a pool, and the use of inefficient underground storage of natural gas;

(b) surface waste as those words are generally understood in the oil and gas business, and in any event to embrace the unnecessary or excessive surface loss or destruction without beneficial use, however caused, of natural gas of any type or in any form, or crude petroleum oil, or a product thereof, but including the loss or destruction, without beneficial use, resulting from evaporation, seepage, leakage or fire, especially such loss or destruction incident to or resulting from the manner of spacing, equipping, operating or producing a well or wells, or incident to or resulting from the use of inefficient storage or from the production of crude petroleum oil or natural gas, in excess of the reasonable market demand;

(c) the production of crude petroleum oil in this state in excess of the reasonable market demand for such crude petroleum oil; such excess production causes or results in waste that the Oil and Gas Act prohibits; the words "reasonable market demand" as used herein with respect to crude petroleum oil, shall be construed to mean the demand for such crude petroleum oil, for reasonable current requirements for current consumption and use within or outside of the state, together with the demand of such amounts as are reasonably necessary for building up or maintaining reasonable storage reserves of crude petroleum oil or the products thereof, or both such crude petroleum oil and products;

(d) the non-ratable purchase or taking of crude petroleum oil in this state; such non-ratable taking and purchasing causes or results in waste, as defined in Subparagraphs (a), (b) and (c) of Paragraph (1) of Subsection W of 19.15.1.7 NMAC and causes waste by violating the Oil and Gas Act, NMSA 1978, Section 70-2-16;

(e) the production in this state of natural gas from a gas well or wells, or from a gas pool, in excess of the reasonable market demand from such source for natural gas of the type produced or in excess of the capacity of gas transportation facilities for such type of natural gas; the words "reasonable market demand", as used herein with respect to natural gas, shall be construed to mean the demand for natural gas for reasonable current requirements, for current consumption and for use within or outside the state, together with the demand for such amounts as are necessary for building up or maintaining reasonable storage reserves of natural gas or products thereof, or both such natural gas and products.

(2) Waste (exempt). Exempt waste shall mean oil field waste exempted from regulation as hazardous waste pursuant to Subtitle C of the federal Resource Conservation and Recovery Act (RCRA) and applicable

regulations.

(3) Waste (hazardous). Hazardous waste shall mean non-exempt waste that exceeds the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended.

(4) Waste (non-exempt). Non-exempt waste shall mean oil field waste not exempted from regulation as hazardous waste pursuant to Subtitle C of RCRA and applicable regulations.

(5) Waste (non-hazardous). Non-hazardous waste shall mean non-exempt oil field waste that is not hazardous waste.

(6) Water shall mean all water including water situated wholly or partly within or bordering upon the state, whether surface or subsurface, public or private, except private waters that do not combine with other surface or subsurface water.

(7) Water contaminant shall mean a substance that could alter if released or spilled the physical, chemical, biological or radiological qualities of water. "Water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954.

(8) Watercourse shall mean a river, creek, arroyo, canyon, draw or wash or other channel having definite banks and bed with visible evidence of the occasional flow of water.

(9) Water pollution shall mean introducing or permitting the introduction into water, either directly or indirectly, of one or more water contaminants in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or to unreasonably interfere with the public welfare or the use of property.

(10) Well blowout shall mean a loss of control over and subsequent eruption of a drilling or workover well or the rupture of the casing, casinghead or wellhead or an oil or gas well or injection or disposal well, whether active or inactive, accompanied by the sudden emission of fluids, gaseous or liquid, from the well.

(11) Wellhead protection area shall mean the area within 200 horizontal feet of a private, domestic fresh water well or spring used by less than five households for domestic or stock watering purposes or within 1000 horizontal feet of any other fresh water well or spring. Wellhead protection areas shall not include areas around water wells drilled after an existing oil or natural gas waste storage, treatment or disposal site was established.

(12) Wetlands shall mean those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico. Constructed wetlands used for wastewater treatment purposes are not included in this definition.

(13) Working interest owners are the owners of the operating interest under an oil and gas lease who have the exclusive right to exploit the oil and gas minerals. Working interests are cost bearing.

(14) WQCC means the New Mexico Water Quality Control Commission.

[1-5-50...2-1-96; A, 7-15-96; Rn, 19 NMAC 15.A.7.1 through 7.84, 3-15-97; A, 7-15-99; 19.15.1.7 NMAC - Rn, 19 NMAC 15.A.7, 5-15-001; A, 3/31/04; A, 9/15/04; A, 09/30/05; A, 12/15/05; A, 2/14/07; A, / /07]

19.15.1.21 SPECIAL PROVISIONS FOR SELECTED AREAS OF SIERRA AND OTERO COUNTIES:

A. The selected areas comprise:

(1) all of Sierra county except the area west of Range 8 West NMPM and north of Township 18 South, NMPM; and

(2) all of Otero county except the area included in the following townships and ranges:

- **(a)** township 11 south, range 9 1/2 east and range 10 east NMPM;
- **(b)** township 12 south, range 10 east and ranges 13 east through 16 east, NMPM;
- **(c)** township 13 south, ranges 11 east through 16 east, NMPM;
- **(d)** township 14 south, ranges 11 east through 16 east, NMPM;
- **(e)** township 15 south, ranges 11 east through 16 east, NMPM;
- **(f)** township 16 south, ranges 11 east through 15 east, NMPM;
- **(g)** township 17 south, range 11 east (surveyed) and ranges 12 east through 15 east, NMPM;
- **(h)** township 18 south, ranges 11 east through 15 East, NMPM;
- **(i)** township 20 1/2 south, range 20 east, NMPM;
- **(j)** township 21 south, range 19 east and range 20 east, NMPM; and
- **(k)** township 22 south, range 20 east, NMPM; and also excepting also the un-surveyed area

bounded as follows:

(i) beginning at the most northerly northeast corner of Otero county, said point lying in the west line of range 13 east (surveyed);

(ii) thence west along the north boundary line of Otero county to the point of intersection of such line with the east line of range 10 east NMPM (surveyed);

(iii) thence south along the east line of range 10 east NMPM (surveyed) to the southeast corner of township 11 south, range 10 east NMPM (surveyed);

(iv) thence west along the south line of township 11 south, range 10 east NMPM (surveyed) to the more southerly northeast corner of township 12 south, range 10 east NMPM (surveyed);

(v) thence south along the east line of range 10 east NMPM (surveyed) to the inward corner of township 13 south, range 10 east NMPM (surveyed) (said inward corner formed by the east line running south from the more northerly northeast corner and the north line running west from the more southerly northeast corner of said township and range);

(vi) thence east along the north line of township 13 south NMPM (surveyed) to the southwest corner of township 12 south, range 13 east, NMPM (surveyed);

(vii) thence north along the west line of range 13 east, NMPM (surveyed) to the point of beginning.

B. The division shall not issue permits [~~under 19.15.2.50 NMAC or 19.15.9.711 NMAC~~]for pits located in the selected areas.

C. Produced water injection wells located in the selected areas are subject to the following requirements in addition to those set out in 19.15.9.701 NMAC through 19.15.9.710 NMAC.

(1) Permits shall be issued under 19.15.9.701 NMAC only after notice and hearing.

(2) The radius of the area of review shall be the greater of:

(a) one-half mile; or

(b) one and one-third times the radius of the zone of endangering influence, as calculated under environmental protection agency regulation 40 CFR Part 146.6(a) or by any other method acceptable to the division; but in no case shall the radius of the area of review exceed one and one-third miles.

(3) Operators shall demonstrate the vertical extent of any fresh water aquifer(s) prior to using a new or existing well for injection.

(4) All fresh water aquifers shall be isolated throughout their vertical extent with at least two cemented casing strings. In addition,

(a) existing wells converted to injection shall have continuous, adequate cement from casing shoe to surface on the smallest diameter casing, and

(b) wells drilled for the purpose of injection shall have cement circulated continuously to surface on all casing strings, except the smallest diameter casing shall have cement to at least 100 feet above the casing shoe of the next larger diameter casing.

(5) Operators shall run cement bond logs acceptable to the division after each casing string is cemented, and file the logs with the appropriate district office of the division. For existing wells the casing and cementing program shall comply with 19.15.9.702 NMAC.

(6) Produced water transportation lines shall be constructed of corrosion-resistant materials acceptable to the division, and shall be pressure tested to one and one-half times the maximum operating pressure prior to operation, and annually thereafter.

(7) All tanks shall be placed on impermeable pads and surrounded by lined berms or other impermeable secondary containment device having a capacity at least equal to one and one-third times the capacity of the largest tank, or, if the tanks are interconnected, of all interconnected tanks.

(8) Operators shall record injection pressures and volumes daily or in a manner acceptable to the division, and make the record available to the division upon request.

(9) Operators shall perform a mechanical integrity tests as described in Paragraph (2), Subsection A of 19.15.9.704 NMAC annually, shall advise the appropriate district office of the division of the date and time each such test is to be commenced in order that the test may be witnessed and shall file the pressure chart with the appropriate district office of the division.

[19.15.1.21 NMAC - N, 08-13-04; A, / /07]

19.15.2.52 DISPOSITION OF PRODUCED WATER AND OTHER OIL FIELD WASTE:

A. Prohibited dispositions. Except as authorized by 19.15.1.19 NMAC, [~~19.15.2.50 NMAC, 19.15.2.53 NMAC~~]19.15.17 NMAC, 19.15.36 NMAC, 19.15.3.116 NMAC or 19.15.9.701 NMAC, no person, including a transporter, shall dispose of produced water or other oil field waste:

(1) on or below the surface of the ground; in a pit; or in a pond, lake, depression or watercourse;

(2) in another place or in a manner that may constitute a hazard to fresh water, public health, safety or the environment; or

(3) in a permitted pit or registered or permitted surface waste management facility without the permission of the owner or operator of the pit or facility.

B. Authorized disposition of produced water. The following methods of disposition of produced water are authorized:

(1) in a manner that does not constitute a hazard to fresh water, public health, safety or the environment, delivery to a permitted salt water disposal well or facility, secondary recovery or pressure maintenance injection facility, surface waste management facility or [~~disposal~~]permanent pit permitted pursuant to [~~19.15.2.50 NMAC~~]19.15.17 NMAC or to a drill site for use in drilling fluid; or

(2) use in accordance with a division-issued use permit or other division authorization.

C. Authorized dispositions of other oil field waste. Persons shall dispose of other oil field waste by transfer to an appropriate permitted or registered surface waste management facility or injection facility or applied to a division-authorized beneficial use. Persons may transport recovered drilling fluids to other drill sites for reuse provided that such fluids are transported and stored in a manner that does not constitute a hazard to fresh water, public health, safety or the environment.

[19.15.2.52 NMAC - Rp, 19.15.9.710 NMAC, 2/14/07; A, / /07]

19.15.3.114 SAFETY [~~REGULATIONS~~]PROCEDURES FOR DRILLING AND PRODUCTION:

[~~A. All oil wells into a pit or a tank, not less than 40 feet from the derrick floor and 150 feet from any fire hazard. All flowing oil wells must be produced through an oil and gas separator of ample capacity and in good working order. No boiler or portable electric lighting generator shall be placed or remain nearer than 150 feet to any producing well or oil tank. Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least 150 feet from the vicinity of wells and tanks. All waste shall be burned or disposed of in such manner as to avoid creating a fire hazard.~~

~~B. When coming out of the hole with drill pipe, drilling fluid shall be circulated until equalized and subsequently drilling fluid level shall be maintained at a height sufficient to control subsurface pressures. During course of drilling blowout preventers shall be tested at least once each 24 hour period.~~]

A. An operator shall

(1) clean oil wells into a pit permitted pursuant to 19.15.17 NMAC or a tank, not less than 40 feet from the derrick floor and 150 feet from a fire hazard;

(2) produce flowing oil wells through an oil and gas separator of ample capacity and in good working order;

(3) not place or leave a boiler or portable electric lighting generator nearer than 150 feet to a producing well or oil tank; and

(4) remove rubbish or debris that might constitute a fire hazard to a distance of at least 150 feet from the vicinity of wells and tanks and burn or dispose of waste in a manner as to avoid creating a fire hazard.

B. When coming out of the hole with drill pipe, the operator shall circulate drilling fluid until equalized and subsequently maintain drilling fluid level at a height sufficient to control bottom hole pressures. During course of drilling, the operator shall test blowout preventers at least once each 24-hour period.

[1-1-50...2-1-96; 19.15.3.114 NMAC - Rn, 19 NMAC 15.C.114, 11-15-01; A, / /07]

19.15.4.202 PLUGGING AND PERMANENT ABANDONMENT:

A. Notice of Plugging.

(1) [~~Notice of intention to plug must be filed with the division on form C-103, Sundry Notices and Reports on Wells, by the operator prior to the commencement of plugging operations, which must provide all of the information required by Rule 1103 including operator and well identification and proposed procedures for plugging said well, and in addition the operator shall provide a well-bore diagram showing the proposed plugging procedure. Twenty-four hours written notice shall be given prior to commencing any plugging operations. In the case of a newly drilled dry hole, the operator may obtain verbal approval from the appropriate district supervisor or his representative of the method of plugging and time operations are to begin. Written notice in accordance with this rule shall be filed with the division ten (10) days after such verbal approval has been given.~~]The operator shall file notice of intention to plug with the division on form C-103 prior to commencing plugging operations. The notice shall provide all the information 19.15.13.1103 NMAC requires including operator and well identification and proposed procedures for plugging the well.

(2) In addition, the operator shall provide a well-bore diagram showing the proposed plugging procedure.

(3) The operator shall notify the division 24 hours prior to commencing plugging operations. In the case of a newly drilled dry hole, the operator may obtain verbal approval from the appropriate district supervisor or the district supervisor's representative of the plugging method and time operations are to begin. The operator shall file written notice in accordance with Subsection C of 19.15.4.202 NMAC with the division 10 days after the district supervisor has given verbal approval.

B. Plugging.

(1) [~~Before any well is abandoned, it shall be plugged in a manner which will permanently confine all oil, gas and water in the separate strata in which they are originally found. This may be accomplished by using mud-laden fluid, cement and plugs singly or in combination as approved by the division on the notice of intention to plug.~~]Before an operator abandons a well, the operator shall plug the well in a manner that permanently confines all oil, gas and water in the separate strata in which they are originally found. The operator may accomplish this by using mud-laden fluid, cement and plugs singly or in combination as approved by the division on the notice of intention to plug.

(2) [~~The operator shall mark the exact location of plugged and abandoned wells with a steel marker not less than four inches in diameter set in cement and extending at least four feet (4') above mean ground level. The operator name, lease name and well number and location, including unit letter, section, township and range, shall be welded, stamped or otherwise permanently engraved into the metal of the marker. No permanent structures preventing access to the wellhead shall be built over a plugged and abandoned well without written approval of the OCD. No plugged and abandonment marker shall be removed without the written permission of the OCD.~~]The operator shall mark the exact location of plugged and abandoned wells with a steel marker not less than four inches in diameter set in cement and extending at least four feet above mean ground level. The operator name, lease name and well number and location, including unit letter, section, township and range, shall be welded, stamped or otherwise permanently engraved into the marker's metal. A person shall not build permanent structures preventing access to the wellhead over a plugged and abandoned well without the division's written approval. A person shall not remove a plugged and abandonment marker without the division's written permission.

(3) The operator may use below-ground plugged and abandonment markers only with the division's written permission when an above-ground marker would interfere with agricultural endeavors. The below-ground marker shall have a steel plate welded onto the abandoned well's surface or conductor pipe and shall be at least three feet below the ground surface and of sufficient size so that all the information 19.15.3.103 NMAC requires can be stenciled into the steel or welded onto the steel plate's surface. The division may require a re-survey of the well location.

(4)) The operator shall close all pits, below-grade tanks or closed-loop systems pursuant to 19.15.17 NMAC.

[~~(3)~~]**(5)** As soon as practical but no later than one year after, the completion of plugging operations, the operator shall:

[~~(a) fill all pits~~];

[~~(b)~~]**(a)** level the location;

[~~(c)~~]**(b)** remove deadmen and all other junk; and

[~~(d)~~]**(c)** take such other measures as are necessary or required by the division to restore the

location to a safe and clean condition.

[~~(4)~~](6) Upon completion of plugging and clean up restoration operations as required, the operator shall contact the appropriate district office to arrange for an inspection of the well and location.

[~~(5) Below-ground plugged and abandonment markers can be used only with written permission of the OCD when an above-ground marker would interfere with agricultural endeavors. The below-ground marker shall have a steel plate welded onto the surface or conductor pipe of the abandoned well and shall be at least 3 feet below the ground surface and of sufficient size so that all the information required by Section 103 of 19.15.3 NMAC can be stenciled into the steel or welded onto the surface of the steel plate. The OCD may require a re-survey of the well location.~~]

C. Reports.

(1) The operator shall file form C-105, well completion or recompletion report and log as provided in [~~Rule 1105~~]19.15.13.1105 NMAC.

(2) Within [~~thirty (30)~~]30 days after completing [~~all~~]the required restoration work, the operator shall file with the division, in triplicate, a record of the work done on form C-103 as provided in [~~Rule 1103~~]19.15.13.1105 NMAC.

(3) The division shall not approve the record of plugging or release any bonds until the operator has filed all necessary reports [~~have been file~~]and the division has inspected and approved the location[~~has been inspected and approved by the division~~].

[1-1-50, 7-12-90...2-1-96; A, 3-31-00; 19.15.4.202 NMAC - Rn, 19 NMAC 15.D.202, 12-14-01; A, / /07]

19.15.13.1103 SUNDRY NOTICES AND REPORTS ON WELLS (Form C-103): Form C-103 is a dual purpose form the operator shall file with the [~~appropriate district office of the division~~]appropriate division district office to obtain division approval prior to commencing certain operations and [~~also~~]to report various completed operations.

A. Form C-103 as a notice of intention.

(1) The operator shall file form C-103 and obtain the division's approval prior to:

(a) effecting a change of plans from those the division previously approved on form C-101 or form C-103;

(b) altering a drilling well's casing program or pulling casing or otherwise altering an existing well's casing installation;

(c) placing a well in approved temporary abandonment;

(d) plugging and abandoning a well; or

(e) performing remedial work on a well that, when completed, will affect the well's original status; (this [~~shall include~~]includes making new perforations in existing wells or squeezing old perforations in existing wells, but [~~is not applicable~~]does not apply to new wells in the process of being completed nor to old wells being deepened or plugged back to another zone when [~~such~~]the division has authorized the recompletion [~~has been authorized~~]by an approved form C-101, application for permit to drill, re-enter, deepen plug back or add a zone, nor to acidizing, fracturing or cleaning out previously completed wells, nor to installing artificial lift equipment.)

(2) In the case of well plugging operations, the notice of intention shall include a detailed statement of the proposed work including plans for shooting and pulling casing; plans for mudding, including the mud's weight; plans for cementing, including number of sacks of cement and depths of plugs; restoration and remediation of the location; and the time and date of the proposed plugging operations. The operator shall file a complete log of the well on form C-105 with the notice of intention to plug the well, if the operator has not previously filed the log (see 19.15.13.1105 NMAC); the division shall not release the financial assurance until the operator complies with this requirement.

B. Form C-103 as a subsequent report.

(1) The operator shall file form C-103 as a subsequent report of operations in accordance with the provisions of 19.15.13.1103 NMAC applicable to the particular operation being reported.

(2) [~~Form C-103 is to be used in reporting such completed operations as~~]The operator shall use form C-103 in reporting such completed operations as:

(a) commencement of drilling operations;

(b) casing and cement test;

(c) altering a well's casing installation;

(d) work to secure approved temporary abandonment;

(e) plugging and abandonment;

(f) plugging back or deepening within the same pool;

(g) remedial work;

(h) installation of artificial lifting equipment; or

(i) other operations that affect the well's original status but that are not specifically covered herein.

C. Information to be entered on form C-103, subsequent report, for a particular operation is as follows: report of commencement of drilling operations. Within 10 days following the commencement of drilling operations, the [~~well's~~]operator shall file a report thereof on form C-103. [~~Such~~]The report shall indicate the hour and the date the operator spudded the well[~~ was spudded~~].

D. Report of results of test of casing and cement job; report of casing alteration. The [~~well's~~]operator shall file a report of casing and cement test within 10 days following the setting of each string of casing or liner. [~~Said report shall be filed on form C-103 and shall present~~]The operator shall file the report on form C-103 and include a detailed description of the test method employed and the results obtained by [~~such~~]the test and any other pertinent information [~~required by~~]19.15.1.107 NMAC requires. The report shall also indicate the top of the cement and the means by which [~~such top was determined~~]the operator determined the top. It shall also indicate any changes from the casing program previously authorized for the well.

E. Report of temporary abandonment. The operator shall file a notice of work to secure approved temporary abandonment within 30 days following the work's completion. The report shall present a detailed account of the work done on the well, including location and type of plugs used, if any, and status of surface and downhole

equipment and any other pertinent information relative to the well's overall status.

F. Report on plugging of well.

(1) The operator shall file a report of plugging operations within 30 days following completion of plugging operations on [~~any~~]a well. [~~Said report shall be filed~~]The operator shall file the report on form C-103 and shall include the date [~~the plugging operations were begun~~]the operator began the plugging operation and the date the operator completed the work[~~was completed~~], a detailed account of the manner in which [~~the work was performed~~]the operator performed the work including the depths and lengths of the various plugs set, the nature and quantities of materials employed in the plugging operations including the weight of the mud used, the size and depth of all casing left in the hole and any other pertinent information. (See 19.15.4.201 NMAC - 19.15.4.204 NMAC regarding plugging operations.)

(2) The division shall not approve a plugging report until the [~~pits have been closed and the location leveled and cleared of junk~~]operator demonstrates compliance with the requirements of Subsection B of 19.15.4.202 NMAC. It shall be the operator's responsibility to contact the [~~appropriate district office of the division~~]appropriate division district office when the location has been so restored in order to arrange for an inspection of the plugged well and the location by a division representative.

G. Report of remedial work. The operator shall file a report of remedial work performed on a well within 30 days following [~~completion of such work~~]the work's completion. [~~Said report shall be filed~~]The operator shall file the report on form C-103 and shall present a detailed account of the work done and the manner in which [~~such work was performed~~]the operator performed the work; the daily production of oil, gas and water both prior to and after the remedial operation; the size and depth of shots; the quantity of and, crude, chemical or other materials employed in the operation; and any other pertinent information. Among the remedial work [~~to be reported~~]an operator shall report on form C-103 are the following:

(1) report on shooting, fluid fracturing or chemical treatment of a previously completed well;

(2) report of squeeze job;

(3) report on setting of liner or packer;

(4) report of installation of pumping equipment or gas lift facilities; or

(5) report of any other remedial operations that are not specifically covered herein.

H. Report on deepening or plugging back within the same pool. The operator shall file a report of deepening or plugging back within 30 days following completion of such operations on any well. The operator shall file said report on form C-103 and shall present a detailed account of work done and the manner in which [~~such work was performed~~]the operator performed the work. If the [~~well is recompleted~~]recompletes the well in the same pool, the operator shall also report the daily production of oil, gas and water both prior to and after recompletion. If the well is recompleted in another pool, the operator shall file forms C-101, C-102, C-104 and C-105 in accordance with 19.15.13.1101, 19.15.13.1102, 19.15.13.1104 and 19.15.13.1105 NMAC.

I. Other reports on wells. The operator shall submit reports on any other operations that affect the well's original status but that are not specifically covered [~~herein~~]in 19.15.13.1103 NMAC to the division on form C-103 10 days following such operation's completion.

[1-1-65...2-1-96; 19.15.13.1103 NMAC - Rn, 19 NMAC 15.M.1103, 06/30/04; A, 12/15/05; A, / /07]

Exhibit B to Application for Rulemaking

Case No. _____: Application of the New Mexico Oil Conservation Division for Repeal of Existing Rule 50 Concerning Pits and Below Grade Tanks and Adoption of a New Rule Governing Pits, Below Grade Tanks, Closed Loop Systems and Other Alternative Methods to the Foregoing, and Amending Other Rules to Make Conforming Changes; Statewide.

The State of New Mexico, through its Oil Conservation Commission, hereby gives notice that the Commission will conduct a public hearing at 9:00 A.M. on Monday, October 22, 2007, in Porter Hall at 1220 South St. Francis Drive, Santa Fe, New Mexico, concerning the Oil Conservation Division's proposal to repeal Rule 50 [9.15.17.2.50 NMAC] (concerning pits and below-grade tanks) and replace it with a proposed new rule to be codified as 19.15.17 NMAC. The proposed new rule will ban all unlined pits absent a special exception, adopt new requirements for the closure of pits and below-grade tanks, otherwise substantially change the Commission's existing requirements concerning the permitting, design, construction and operation of pits and below-grade tanks (and operation of sumps), used in oil and gas operations, and require the permitting of, and prescribe rules concerning design, construction, operation and closure of, closed loop systems or other alternative methods that may be proposed for use in lieu of pits or below-grade tanks. In addition, the Division proposes conforming changes to Rules 7 [19.15.1.7 NMAC], 21 [19.15.1.21 NMAC], 52 [19.15.2.52 NMAC], 114 [19.15.3.114 NMAC], 202 [19.15.4.202 NMAC] and 1103 [19.15.13.1103 NMAC]. Copies of the text of the proposed rules are available from Division Administrator Florene Davidson at (505)-476-3458 or from the Division's web site at http://www.emnrd.state.nm.us/ocd/whatsnew.htm. Proposals for alternatives to the proposed rule must be received by the division no later than 5:00 P.M. on Friday, October 5, 2007. Written comments on the proposed new rule must be received no later than 5:00 P.M. on Monday, October 15, 2007. Persons intending to offer technical testimony at the hearing must file a Pre-hearing Statement (six copies) conforming to the requirements of 19.15.14.1204 NMAC, including six copies of all exhibits the person will offer in evidence at the hearing, no later than Monday, October 15, 2007. Proposed alternatives and written comments may be hand-delivered or mailed to Ms. Davidson at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, or may be faxed to Ms. Davidson at (505)-476-3462. Pre-hearing statements must be hand-delivered or mailed to the Ms. Davidson at the above address. If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing, please contact Ms. Davidson at (505)-476-3458 or through the New Mexico Relay Network (1-800-659-1779) as soon as possible.

Given under the Seal of the State of New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this ___ day of September, 2007.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Mark E. Fesmire, P.E.
Chair, Oil Conservation Commission