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December 13, 2007

New Mexico Oil Conservation Commission
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Final recommended modifications of the New Mexico Industry Committee
Proposed Pit Rule, Rule 19.15.17, Case No. 14015

Dear Members of the Commission:

In accordance with the order of the Chairman issued during Case No. 14015, each party to the case is to provide final recommended modifications (e.g., a "redline") to the proposed Pit Rule, Rule 19.15.17, no later than the start of hearing on Friday, December 14, 2007. This letter and the attached documents represent the New Mexico Industry Committee's response to that order.

As requested, the first attachment sets forth each requested change, separately. The second attachment provides a rationale for that change, with some commentary on the testimony that the Commission has heard supporting the recommended change. The third attachment is a complete redline of the entire proposed rule to provide context should the Commission need to refer to the changes proposed by the New Mexico Industry Committee *in toto*.

The New Mexico Industry Committee and its member companies appreciate the opportunity to participate in this hearing and hope that the Commission will give their comments, which are backed by the best technical expertise that they could muster, full consideration. Please do not hesitate to call or request additional information if that would assist the Commission in its deliberations.

Respectfully,

William F. Carr, Joint Counsel
New Mexico Industry Committee

Eric L. Hiser, Technical Counsel
New Mexico Industry Committee

Attachments
Cc: Ms. Florene Davidson, Clerk of the Commission (w/attachments)

ATTACHMENT A

Note on Industry Committee Numbering
The Industry Committee has used the Division's proposed numbering. Where the Industry Committee has deleted a section, it has not renumbered subsequent sections.

Where the Industry Committee has added a section, it has used the prior section number with a hyphen, for example, 19.15.17.13.E-1 (old section) and 19.15.17.13.E-2 (new section).

Where the Industry Committee has wholly rewritten a section, it has simply included the new language in its entirety without showing the deleted language for the sake of reducing confusion. This was only done in the 19.15.17.11 language for below-grade tank design and construction standards.

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 1 GENERAL PROVISIONS AND DEFINITIONS

19.15.1.7 Definitions
B. Definitions beginning with the letter "B".
* * * *
(5) Below-grade tank shall mean a vessel, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls are below the ground surface **and are not visible**.

P. Definitions beginning with the letter "P"
* * * *
(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 **and storm water or run-on control**.
* * * *

S. Definitions beginning with the letter "S"
* * * *
(8A) Sub-grade tank shall mean a vessel intended for the storage of produced water and incidental hydrocarbons, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls are below the ground surface, but are visible. **For tanks installed after [rule effective date], the bottom of the tank must also be either visible for inspection or an impermeable deflection liner must be placed under the tank bottom to allow visual inspection of the liner edge for leaks from the tank bottom.**

ATTACHMENT A

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

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

19.15.17.8 PERMIT OR REGISTRATION REQUIRED:

19.15.17.8.C
C. **A single permit may be issued for all pits, below-grade tanks and closed-loop systems or other division-approved alternative methods associated with a single APD.**

19.15.17.8.D
D. **A person shall not use a sub-grade tank except after registering it with the division.**

19.15.17.9.B
B. The permit application shall include ~~a detailed~~ **an** engineering design plan.

19.15.17.9.B.2
(2) Temporary pits. An engineering design plan for a temporary pit shall use appropriate engineering principles and practices and follow applicable manufacturers' **requirements** ~~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 **compliance with the siting standards of 19.15.17.10 NMAC**~~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.

19.15.17.9.B.3
(3) Closed-loop systems. An engineering design plan for a closed-loop system shall use appropriate engineering principles and practices and follow applicable manufacturers' **requirements** ~~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.

19.15.17.9.B.4
(4) Below-grade tanks. An engineering design plan for a below-grade tank shall use appropriate engineering principles and practices and follow applicable manufacturers' **requirements**~~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 **compliance with the siting standards of 19.15.17.10 NMAC**~~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.

19.15.17.9.C.4

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

19.15.17.9.E (new section)

E. Registration of sub-grade tanks. An operator shall file a registration, form C144SGT, and all required attachments, with the appropriate division district office.

19.15.17.10.A.1.b

(b) within 300 feet of a continuously flowing watercourse, or ~~200~~ **30** feet of any other **significant** 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. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles.**

19.15.17.10.A.2.b

(b) within 300 feet of a continuously flowing watercourse, or **30**~~200~~ feet of any other **significant** 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. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles**;

19.15.17.10.A.3.a

(a) within 300 feet of a continuously flowing watercourse, or ~~200~~ **30** feet of any other **significant** 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. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles**;

19.15.17.10.C.2

(2) within 300 feet of a continuously flowing watercourse, or **30** ~~200~~ feet of any other **significant** watercourse, lakebed, sinkhole or playa lake (measured from the ordinary highwater mark), unless the division approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles**;

19.15.17.11.A.

A. General specifications. An operator shall design and construct a pit, closed-loop system, below-grade tank, **sub-grade tank** or sump to contain liquids and solids and prevent contamination of fresh

water and protect public health and the environment.

19.15.17.11.C

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 **or sub-grade tank**, unless the pit, closed-loop system, ~~or~~ below-grade tank **or sub-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.

19.15.17.11.D.1

(1) The operator shall fence or enclose a pit, ~~or~~ below-grade tank **or sub-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 **or sub-grade tank**. During drilling operations, the operator is not required to fence the edge of the pit adjacent to the drilling rig.

19.15.17.11.D.2

(2) The operator shall fence or enclose a pit, below-grade tank **or sub-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.

19.15.17.11.D.3

(3) The operator shall fence any other pit, below-grade tank **or sub-grade tank** to exclude wildlife and livestock, with at least four strands of barbed wire in the interval between one foot and **four**~~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.

19.15.17.11.F.1

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

19.15.17.11.F.3

(3) The operator shall design and construct a temporary pit with a geomembrane liner. The geomembrane liner shall consist of ~~20~~ **12**-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.

19.15.17.11.F.7

(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.~~

19.15.17.11.F.9

(9) The operator shall design and construct a temporary pit to prevent run-on of surface water. A berm, ditch**, proper sloping** 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.

19.15.17.11.I

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

(1) A below-grade tank shall be constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.

(2) A below-grade tank shall be constructed to prevent overflow and the collection of surface water run-on.

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

(4) A below-grade tank system shall consist of either a double walled tank with the capability to detect leaks or a single walled 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.

(5) 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 **(3)**~~(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 **20mil LLDPE liner**~~30mil flexible PVC or 60mil 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 x 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 SW846 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.

19.15.17.11.I-2 (new section)

I-2. Sub-grade tanks. The operator shall design and construct a sub-grade tank in accordance with the following requirements.

(1) A sub-grade tank shall be constructed of materials resistant to the sub-grade tank's particular contents and resistant to damage from sunlight.

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

(3) A sub-grade tank system shall have a properly constructed foundation consisting of a level base free of debris, sharp edges or irregularities to prevent punctures or cracks of the

liner or tank bottom.

(4) A sub-grade tank system installed after [rule effective date] shall consist of either a double walled tank with the capability to detect leaks or a single walled tank placed upon an impermeable deflection liner so that leaks are capable of being visually detected, or an alternative system that the appropriate division district office approves based upon the operator's demonstration that the alternative provides equivalent protection.

19.15.17.11.J.4

(4) An on-site deep trench shall be constructed with a geomembrane liner. The geomembrane shall consist of a **12**~~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 SW846 method 9090A.

19.15.17.11.J.10

(10) The geomembrane cover shall consist of a **12**~~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 SW846 method 9090A.

19.15.17.12.A.1

(1) The operator shall operate and maintain a pit, closed-loop system, below-grade tank, **sub-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.

19.15.17.12.A.2

(2) The operator shall recycle, reuse, reclaim **or dispose** all drilling fluids in a manner **approved by division rules** that prevents the contamination of fresh water and protects public health and the environment ~~and that the appropriate division district office approves~~.

19.15.17.12.A.3

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

19.15.17.12.A.6

(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.~~

19.15.17.12.A.8

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

19.15.17.12.B.4

(4) The operator shall remove all free liquids from a **temporary** ~~drilling~~ pit within **45**~~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 **or approve an alternative method providing equivalent protection**.

19.15.17.12.B.5

~~(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.~~

19.15.17.12.F

F. Sub-grade tanks. The operator shall not allow a sub-grade tank to overflow or allow surface water run-on to enter the sub-grade tank.

19.15.17.13.A.1

(1) An existing unlined, permitted or registered permanent pit shall be closed within two years after **approval of the closure plan pursuant to 19.15.17.17 NMAC.** ~~[the effective date of 19.15.17 NMAC]~~.

19.15.17.13.A.2

(2) An existing lined or unlined, permanent pit not permitted or registered shall be closed within **120**~~60~~ days after **approval of the closure plan pursuant to 19.15.17.17 NMAC**~~, 200 [effective date]~~.

19.15.17.13.A.3

(3) An existing unlined, temporary pit shall be closed within three months after **approval of the closure plan pursuant to 19.15.17.17 NMAC**~~, 200 [effective date]~~.

19.15.17.13.B.1.b

(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, **DRO**~~TPH~~ and chlorides to demonstrate that the benzene concentration, as determined by EPA SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the **DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed **2500**~~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 **5000** ~~250~~ mg/kg, or the background concentration, whichever is greater. **The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg.** The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

19.15.17.13.B.2

(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.

19.15.17.13.E-1.1

(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.

19.15.17.13.E-1.4

(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 SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the **DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed **2500**~~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 **5000** ~~250~~ mg/kg, or the background concentration, whichever is greater. **The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg.** The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

19.15.17.13.F

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.

19.15.17.13.F.1.a

~~**(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.~~

19.15.17.13.F.1.c

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

19.15.17.13.F.1.e-g [relocated to 19.15.17.13.F.2.f-1 to f-3]

~~**(e)** The operator shall test the soils beneath the 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 SW846 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 SW846 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 C141. 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, nonwaste 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.~~

19.15.17.F.2.b

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

19.15.17.F.2.d

(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 **GRO/DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed 2500 mg/kg **and** ~~. Using EPA SW846 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 **24,800** ~~5,000~~ mg/**kg, or background, whichever is higher.** ~~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.~~

19.15.17.13.F.2.f-2 to f-3 [relocated from F.1.g-i]

(f-2) 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; and analyze for BTEX, DRO and chlorides to demonstrate that the benzene concentration, as determined by EPA SW846 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 DRO concentration, as determined by EPA method 8015M or other EPA method that the division approves, does not exceed 2500 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5000 mg/kg, or the background concentration, whichever is greater. The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg. The operator shall notify the division of its results on form C141. The division may require additional delineation upon review of the results.

(f-3) 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 temporary pit excavation with compacted, nonwaste 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.

19.15.17.13.F.3 [new section: in-pit burial]

(3) In-pit 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 on-site burial in the temporary pit ("in-pit burial") for closure of any drying pad associated with a closed-loop system or temporary pit associated with that APD other than the pit selected for in-pit burial.

(c) The operator shall collect at a minimum, a five point, composite sample of the treated contents proposed for on-site burial to demonstrate that the benzene concentration, as determined by EPA SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; DRO concentration, as determined by EPA method 8015M or other EPA method that the division approves, does not exceed 2500 mg/kg, and that the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5000 mg/kg.

(d) 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 the selected lined temporary pit. The combined temporary pit and excavated materials shall pass the paint filter liquids test (EPA SW 846, method 9095).

(e) The operator shall cover the geomembrane lined and covered, filled, pit with compacted, nonwaste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and revegetation 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.

19.15.17.13.G.2

(2) The soil cover for on-site ~~deep trench~~ burial shall consist of a minimum of four feet of compacted, nonwaste 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.

19.15.17.15.A.1

(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~~ **prevents the contamination of** fresh water, **or protects** 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 70223, 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.

19.15.17.15.A.2-3

~~(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.~~

19.15.17.15.B.1

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

19.15.17.15.B.2

(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**n approved** manner ~~that the environmental bureau in the division's Santa Fe office approves~~.

19.15.17.16.A.

A. The division shall review all applications to permit facilities subject to 19.15.17 NMAC, and ~~may~~ **shall** approve, deny or approve an application with conditions **within 60 days of receipt**. 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. **If the division does not approve, deny, or approve with conditions an application within 60 days of receipt, the matter will be set for the next commission hearing.**

19.15.17.16.G

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

19.15.17.16.H [new section]

H. If a hearing is scheduled on an application, the hearing shall be conducted according to 19.15.14.1206 through 19.15.14.1215 NMAC.

19.15.17.17.A

A. After_____, 200_ [effective date], **applications for** unlined temporary pits are prohibited.

19.15.17.17.B

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 **90**~~30~~ days after_____, 200_ [effective date].

19.15.17.17.C

C. Within 180 days after _____, 200_ [effective date], an operator of an existing lined,

permitted, permanent pit shall request a modification pursuant to Subsection E of 19.15.17.16 NMAC. Within 180 days after _____, 200_ [effective date], an operator of an existing lined, registered, permanent pit shall apply to the division for a permit pursuant to 19.15.17 NMAC. An operator of an existing lined, permitted or registered, permanent pit shall comply with the construction requirements of 19.15.17.**11** NMAC within **eighteen months after permit modification or issuance.** ~~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.~~

19.15.17.17.D

D. An operator of an existing below-grade tank shall **apply for a permit or permit modification pursuant to** ~~comply with the permitting requirements of~~ 19.15.17 NMAC within 90 days after_____, 200_ [effective date]. **An operator of an existing below-grade tank shall comply with the construction requirements of 19.15.17.11 within one year of permit issuance.** ~~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.~~

19.15.17.17.E

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.**12 and 19.15.17.13** NMAC.

(2) An operator of an existing permitted or registered, temporary pit shall comply with the operational and closure requirements of 19.15.17.**12 and 19.15.17.13** NMAC.

(3) An operator of an existing below-grade tank shall comply with the operational and closure requirements of 19.15.17.**12 and 19.15.17.13** 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.**11** NMAC into compliance with those requirements or close it within five years after _____, 200_ [effective date].

19.15.17.17.G

G. An operator of an existing sump shall comply with the operational requirements of 19.15.17.**12** NMAC.

Note on Industry Committee Numbering

The Industry Committee has used the Division's proposed numbering. Where the Industry Committee has deleted a section, it has not renumbered subsequent sections.

Where the Industry Committee has added a section, it has used the prior section number with a hyphen, for example, 19.15.17.13.E-1 (old section) and 19.15.17.13.E-2 (new section).

Where the Industry Committee has wholly rewritten a section, it has simply included the new language in its entirety without showing the deleted language for the sake of reducing confusion. This was only done in the 19.15.17.11 language for below-grade tank design and construction standards.

19.15.1.7.B

(5) Below-grade tank shall mean a vessel, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls are below the ground surface **and are not visible**.

The recommended modification is to restore the phrase "and are not visible" to the definition of below-grade tank. This restores the original scope of Rule 50 to proposed Rule 17. It avoids reclassification of the above-ground, below-grade tanks demonstrated by the ConocoPhillips witnesses to the regulated below-grade tank classification. Instead, they would be handled as a new category of "sub-grade tanks" consistent with the Task Force consensus.

As demonstrated during the hearing, there is no evidence in the record of a release or environmental problem from either a below-grade tank or from a sub-grade tank. Industry members testified that the sub-grade tanks were designed to be even more protective than a below-grade tank. Therefore, there is no basis in Case No. 14015 to subject sub-grade tanks to regulation as below-grade tanks.

19.15.1.7.P

(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 **and storm water or run-on control**.

This recommended modification is to address the issue raised during the cross-examination of Mr. Brad Jones that the proposed Rule 17, as drafted, would require a permit for a storm water control pond or basin. Mr. Jones stated that this was not the division's intent, which Mr. Brooks also stated. The best place to address this issue is in the definition of "pit" rather than trying to address it in the definitions of "permanent" or "temporary" pit, which would require twice as much verbiage and which may exclude pits that should be subject to coverage (e.g., by limiting pits to "produced water" or

similar language, pits that hold other materials from future drilling technologies may be excluded). Therefore, the Industry Committee recommends this change.

19.15.1.7.S

(8A) Sub-grade tank shall mean a vessel intended for the storage of produced water and incidental hydrocarbons, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls are below the ground surface, but are visible. **For tanks installed after [rule effective date], the bottom of the tank must also be either visible for inspection or an impermeable deflection liner must be placed under the tank bottom to allow visual inspection of the liner edge for leaks from the tank bottom.**

This recommended modification adds the definition of "sub-grade tanks" to reflect the testimony in the hearing by Mr. John Byrom, Mr. Greg Wurtz and others that the Task Force consensus was for above-ground, below-grade tanks to be regulated merely by adding a requirement for either bottom inspection or an impermeable deflection liner that would cause oil or liquid to move to the edge of the liner, out from under the tank bottom, to allow discovery of a leak and prompt corrective action. The proposed new definition of "sub-grade tank" accomplishes this objective without distorting the existing regulation of below-grade tanks, which specify additional controls because of the greater risk that they may pose.

19.15.17.6

OBJECTIVE: To regulate pits, closed-loop systems, below-grade tanks**, sub-grade tanks** and sumps used in connection with oil and gas operations for the protection of public health, welfare and the environment.

This recommended modification merely clarifies the scope of proposed Rule 17 as also covering sub-grade tanks.

19.15.17.8 PERMIT OR REGISTRATION REQUIRED:

This recommended modification changes the header of proposed 19.15.17.8 to note that registration, rather than permitting, of sub-grade tanks is required. The rationale for this change is set forth more fully below.

19.15.17.8.C

C. A single permit may be issued for all pits, below-grade tanks and closed-loop systems or other division-approved alternative methods associated with a single APD.

This recommended modification clarifies that only a single pit is required for all regulated units under this rule that are located within a single APD. The purpose of this modification is to address the concern, developed during the cross-examination of Mr.

Brad Jones, that an argument could be advanced that a *separate* permit was required under this rule for each pit or different type of activity. Mr. Jones stated that this was not the division's intent. However, to avoid ambiguity, the Industry Committee recommends that this clarification be implemented in the proposed rule language. Multiple permits for a single APD would be a waste of resources and of division permitting staff's limited time.

19.15.17.8.D

D. **A person shall not use a sub-grade tank except after registering it with the division.**

This recommended modification implements a registration program for sub-grade tanks. The purpose of registration is to notify the division and allow tracking of all sub-grade tanks installed in the field. Registration, as opposed to permitting, is preferred because the standards for sub-grade tanks are clearly spelled out in the proposed rule, these tanks are fully protective of the environment as testified to by Mr. Greg Wurtz, and the industry needs to have at least one unit that can be installed and moved quickly to address field needs and developments, which is not possible given the permitting requirements applicable to the other units (pits and below-grade tanks). The proposed provision is also consistent with the Task Force consensus for these units.

19.15.17.9.B

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

The proposed recommendation reflects striking the requirement for "a detailed" engineering plan. As brought out during the hearing in the cross-examination of Mr. Jones, it is not clear what additional detail would be required. As drafted, the provision creates ambiguity and could lead to disagreements about what is required. The division always has the authority to request additional information and detail, either by request or by specification in the application instructions. Either approach is preferable to a vague requirement to provide a "detailed" plan. The Industry Committee thus recommends that this terminology be stricken from the proposed rule.

19.15.17.9.B.2

(2) Temporary pits. An engineering design plan for a temporary pit shall use appropriate engineering principles and practices and follow applicable manufacturers' **requirements** ~~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 **compliance with the siting standards of 19.15.17.10 NMAC**~~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.

The recommended modifications to this part of the proposed rule seek to make the following changes.

First, as discussed in the cross-examination of Mr. Brad Jones, manufacturer's typically include a number of self-serving recommendations, such as specifying only the use of their branded parts and materials. These parts and materials can be replaced with equivalents with no loss of environmental protection or functionality. The first change seeks to limit the scope of the manufacturers to either their specifications or requirements to clarify that reasonable equivalents may be used.

Second, the critical element in a hydrologic report for a temporary pit is whether it meets the detailed siting criteria set forth in proposed 19.15.17.10 NMAC. Given the detail of those siting criteria, the additional, vague information specified is not reasonably necessary to protect human health or the environment for the short time the facility is open and the discussion of "actual and potential effects on soils, surface water and groundwater" is well beyond the capability of most small operators. The Commission has heard extensive testimony on these issues as part of Case No. 14015 and the consensus of all expert opinion was that the siting criteria are protective. No further information is needed for temporary pits or below-grade tanks.

19.15.17.9.B.3

(3) Closed-loop systems. An engineering design plan for a closed-loop system shall use appropriate engineering principles and practices and follow applicable manufacturers' **requirements** ~~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.

As discussed in the cross-examination of Mr. Brad Jones, manufacturer's typically include a number of self-serving recommendations, such as specifying only the use of their branded parts and materials. These parts and materials can be replaced with equivalents with no loss of environmental protection or functionality. The change seeks to limit the scope of the manufacturers to either their specifications or requirements to clarify that reasonable equivalents may be used.

19.15.17.9.B.4

(4) Below-grade tanks. An engineering design plan for a below-grade tank shall use appropriate engineering principles and practices and follow applicable manufacturers' **requirements**~~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 **compliance with the siting standards of 19.15.17.10 NMAC** ~~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.

First, as discussed in the cross-examination of Mr. Brad Jones, manufacturer's typically include a number of self-serving recommendations, such as specifying only the use of their branded parts and materials. These parts and materials can be replaced with equivalents with no loss of environmental protection or functionality. The first change

seeks to limit the scope of the manufacturers to either their specifications or requirements to clarify that reasonable equivalents may be used.

Second, the critical element in a hydrologic report for a temporary pit is whether it meets the detailed siting criteria set forth in proposed 19.15.17.10 NMAC. Given the detail of those siting criteria, the additional, vague information specified is not reasonably necessary to protect human health or the environment for the short time the facility is open and the discussion of "actual and potential effects on soils, surface water and groundwater" is well beyond the capability of most small operators. The Commission has heard extensive testimony on these issues as part of Case No. 14015 and the consensus of all expert opinion was the that the siting criteria are protective. No further information is needed for temporary pits or below-grade tanks.

19.15.17.9.C.4

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

The recommended modification is to strike a redundant requirement to submit an "engineering design plan with an attached closure plan." This requirement is already stated in the introductory language to proposed 19.15.17.9.C and does not need to be repeated. The proposed language is also inconsistent with the transition provisions of proposed 19.15.17.17. Redundant language should be avoided.

19.15.17.9.E (new section)

E. Registration of sub-grade tanks. An operator shall file an registration, form C144SGT, and all required attachments, with the appropriate division district office.

This recommended change implements the registration requirement for sub-grade tanks. As outlined above, sub-grade tanks were extensively discussed by the Task Force, which arrived at a consensus that these tanks should either be inspectable on the bottom or else have an impermeable deflection liner to allow visual inspection for leaks. Mr. Greg Wurtz testified as to the protective design and rationale for these tanks. The Industry Committee supports transparency in location, but does not support permitting because these units are very protective and some unit is needed that can be quickly installed and moved as needed, which is not possible in the full permitting universe. Therefore, the Industry Committee recommends registration.

19.15.17.10.A.1.b; A.2.b; A.3.a; C.2

( ) within 300 feet of a continuously flowing watercourse, or **30** ~~200~~ feet of any other **significant** watercourse, lakebed, sinkhole or playa lake (measured from the ordinary highwater mark), unless the division approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles**;

This recommended modification arises from problems faced in trying to locate pits and below-grade tanks, particularly in the northwest. The Industry Committee agrees that protection of surface waters is important, but the 300 flowing, 200 other for any watercourse makes location very difficult given landowner requests, ESA issues, archeological issues and all of the other items that go into a siting decision. Indeed, as Mr. Greg Wurtz testified, there are times that the 200 foot limit in the Northwest would mean that there is no place on an entire 160 acre lease where a pit or tank could be located. The Task Force addressed this issue and reached an initial consensus of 30 feet for such other watercourses, but this consensus was ultimately withdrawn.

The Industry Committee has variously suggested a 100 foot limit, a 30 foot limit, and several other positions. Indeed, the Chairman asked for suggestions on how to address the problem with the definition of water course. Based upon hearing all of the evidence presented at the hearing, and particularly the landowner testimony about concerns over the flowing rivers in the Northwest and the ConocoPhillips problems with locating a pit or tank at all in the Northwest if small watercourses with defined banks are included, the Industry Committee recommends a three part solution that appears to address all parties concerns:

First, the Industry Committee will support a 300 foot to continuously flowing watercourse standard. This addresses the concerns of landowners about potential operational contamination of a flowing watercourse. It addresses operators' concerns about the same thing.

Second, the Industry Committee proposes to limit the restriction on other watercourses to "significant" water courses. These would be defined as "any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles." This definition builds upon the suggestion of Commissioner Olson that the named draws be used as significant, but recognizes that other tributaries to those draws may also be important. For those, the Industry Committee recommends a five square mile drainage as drawing a reasonable distinction between a non-significant tributary and a potentially significant tributary.

Third, the Industry Committee proposes to use the 30 foot limit that was agreed by all Task Force members except for one. This limit provides a working area around the pit, provides an area where berms and other safety measures can be located, and provides a reasonable area in which to catch and manage any spill that may occur. Industry, of course, seeks to prevent or minimize any spill.

The Industry Committee believes that the combination of these set back requirements, when combined with the 100 year flood plain set back, provides strong protections: (1) the combination assures that the likelihood of overflow into the pit or below-grade tank is very low; (2) the combination assures that the likelihood of "meander" into a pit or former pit location is very unlikely; and (3) the combination assures that pits or below-grade tanks are not located in alluvial fan material that may have an accelerated infiltration risk. The Industry Committee urges the Commission to consider the cumulative protections provided by both the distance set back and the 100

year flood plain protection in assessing the protectiveness of this standard. The Industry Committee believes that these setback provisions provide strong protection, particularly in light of the limited evidence of problems with existing pit and tank locations presented to the Commission in Case No. 14015.

19.15.17.11.A

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

The proposed recommendation adds sub-grade tanks to the general standard "to contain liquids and solids and prevent contamination of fresh water and protect public health and the environment," which the Industry Committee believes is appropriate.

19.15.17.11.C

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 **or sub-grade tank**, unless the pit, closed-loop system, ~~or~~ below-grade tank **or sub-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.

The proposed recommendation adds sub-grade tanks to the signage requirements.

19.15.17.11.D.1

(1) The operator shall fence or enclose a pit, ~~or~~ below-grade tank **or sub-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 **or sub-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, below-grade tank **or sub-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, below-grade tank **or sub-grade tank** to exclude wildlife and livestock, with at least four strands of barbed wire in the interval between one foot and **four**~~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.

The proposed recommendation adds sub-grade tanks to the fencing requirements.

19.15.17.11.F.1

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

The proposed recommendation clarifies that temporary pits need only confine "gas liquids" and not "gas" because a pit cannot contain a gas. The Industry Committee therefore recommends that "gas liquids" be used.

19.15.17.11.F.3

(3) The operator shall design and construct a temporary pit with a geomembrane liner. The geomembrane liner shall consist of ~~20~~ **12**-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.

The proposed recommendation changes the 20-mil liner to a 12-mil string-reinforced liner or equivalent. Based on the testimony of the OCD inspectors from the Northwest and Southeast, no problems have been observed with reinforced liners. Given the testimony of the liner manufacturers, no problems are anticipated with use of a reinforced liner to address wind-whip and some of the other problems. Given that these units are temporary, the Industry Committee does not believe that the division has made its case that a 20-mil liner is necessary when the benefits of reinforcement are considered.

19.15.17.11.F.7

(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.~~

The recommended modification includes the proposed requirement for use of an earth-filled trench, but removes the requirement that the anchor trench be at least 18 inches deep. The Industry Committee believes that this is an issue best left to the installer's recommendations based on site characteristics.

19.15.17.11.F.9

(9) The operator shall design and construct a temporary pit to prevent run-on of surface water. A berm, ditch**, proper sloping** 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.

The recommended modification would allow engineered sloping to meet run-on requirements. This approach is used and represents a reasonable, fail-safe method for addressing run-on issues.

19.15.17.11.I

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

(1) A below-grade tank shall be constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.

(2) A below-grade tank shall be constructed to prevent overflow and the collection of

surface water run-on.

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

(4) A below-grade tank system shall consist of either a double walled tank with the capability to detect leaks or a single walled 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.

(5) 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 **(3)**~~(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 **20mil LLDPE liner**~~,30mil flexible PVC or 60mil 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 x 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 SW846 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.

The recommended modification advocates the replacement, almost entirely, of the proposed design and construction standards for below-grade tanks. The Commission is asked to recollect the testimony of Mr. Brad Jones, where he stated that the division only was interested in a single secondary containment/leak detection requirement. Unfortunately, the proposed provision, as drafted, could be read to include at least two separate secondary containment requirements: (1) one for the individual tank (found in I.(1) and (2)); and (2) one for the "system" (found in later provisions like I.(4) and (5)). It is possible that a creative party opposing a below-grade tank could find even more "layers" of secondary containment might be necessary. Because that is not the intent of the division in proposing this requirement, and because the provision as drafted is confusing, the Industry Committee recommends that the provision presented above be used to replace the division's proposal. The provision above is meant to include all of the substantive suggestions from the division, without the repetition that creates unclarity.

One other minor change in I.(3) is that "rocks" and indentations are removed because they are almost impossible to avoid (small rocks are endemic and not a threat; beams used to support a tank cause at least some indentation). Instead, the focus of I.(3) is placed on removing the "stresses and strains" that may cause a tank bottom or liner failure, regardless of whether that comes from a rock or other source.

In I.(5), the Industry Committee proposes a 20-mil LLDPE or equivalent liner for this application. Testimony from the liner installers was that PVC was frequently not appropriate and degrades and that the 60-mil HDPE liner is difficult to install. Specification of the 20-mil LLDPE liner or equivalent provides good installability and good protection.

19.15.17.11.I-2 (new section)

I-2. Sub-grade tanks. The operator shall design and construct a sub-grade tank in accordance with the following requirements.

(1) A sub-grade tank shall be constructed of materials resistant to the sub-grade tank's particular contents and resistant to damage from sunlight.

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

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

(4) A sub-grade tank system installed after [rule effective date] shall consist of either a double walled tank with the capability to detect leaks or a single walled tank placed upon an impermeable deflection liner so that leaks are capable of being visually detected, or an alternative system that the appropriate division district office approves based upon the operator's demonstration that the alternative provides equivalent protection.

This recommended modification adds a new section I-2 for sub-grade tanks as those tanks were defined above. The Industry Committee has taken the Task Force consensus recommendation and the testimony of Mr. Greg Wurtz on the protective measures for these types of tanks and included them in a new section. Basic design and construction measures are similar in some respects to those proposed for below-grade tanks:

(1) A sub-grade tank shall be constructed of materials resistant to the sub-grade tank's particular contents and resistant to damage from sunlight.

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

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

The Industry Committee believes that these requirements are appropriate for sub-grade as well as below-grade tanks. The last requirement, (4), specifically addresses the Task Force consensus as reported by Mr. Byrom and Mr. Wurtz and incorporates the additional protective measure discussed by both witnesses:

(4) A sub-grade tank system installed after [rule effective date] shall consist of either a double walled tank with the capability to detect leaks or a single walled tank placed upon an impermeable deflection liner so that leaks are capable of being visually detected, or an alternative system that the appropriate division district office approves based upon the operator's demonstration that the alternative provides equivalent protection.

The Industry Committee believes, based upon Mr. Wurtz' testimony, that this approach is extremely protective; provides necessary flexibility for installation of tanks when needed for production purposes, and assures long-term protection of the environment because any leak or release will be rapidly caught and cleaned up.

19.15.17.11.J.4

(4) An on-site deep trench shall be constructed with a geomembrane liner. The geomembrane shall consist of a **12**~~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 SW846 method 9090A.

The recommended modification proposes to use a 12-mil rather than a 20-mil liner. Based on the testimony of the OCD inspectors from the Northwest and Southeast, no problems have been observed with reinforced liners. Given the testimony of the liner manufacturers, no problems are anticipated with use of a reinforced liner to address wind-whip and some of the other problems. Given that these units are temporary, the Industry Committee does not believe that the division has made its case that a 20-mil liner is necessary when the benefits of reinforcement are considered.

19.15.17.11.J.10

(10) The geomembrane cover shall consist of a **12**~~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 SW846 method 9090A.

The recommended modification proposes to use a 12-mil rather than 20-mil liner for the cover. Please see rationale immediately above. Note also that the liner installers indicated that the reinforcing, rather than the thickness, was primarily responsible for improvement in tear/wind-whip resistance.

19.15.17.12.A.1

(1) The operator shall operate and maintain a pit, closed-loop system, below-grade tank, **sub-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.

The recommended modification adds sub-grade tanks to the general performance requirement. The Industry Committee believes that meeting the general performance requirement is appropriate.

19.15.17.12.A.2

(2) The operator shall recycle, reuse, reclaim **or dispose** all drilling fluids in a manner **approved by division rules** that prevents the contamination of fresh water and protects public health and the environment ~~and that the appropriate division district office approves~~.

The recommended modification adds "or dispose" because it is sometimes necessary to remove fluids during the operational phase and they cannot always be recycled when removal is not the result of a planned change in operations. In that case, operators need the flexibility to take the fluids to a disposal facility. The Industry Committee is also concerned that operators will not be able to undertake any fluid management activities without written approval from the district office. This level of "mother may I" supervision of day to day activities is impossible to maintain and will likely lead to acrimony when a pre-scheduled shipment is missed because division staff have not been able to get a written approval back to the operator in time due to the press of other matters. Any handling method approved by division rules should be authorized.

19.15.17.12.A.3

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

This recommended modification assures that sub-grade tanks are not used for the storage of hazardous waste.

19.15.17.12.A.6

(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.~~

This recommended modification eliminates the requirement to install a level measuring device. The operators are not sure that this provides any meaningful information prior to rig discharge; risks possibly sucking the device into the system, potentially causing a spill or significant safety issues. After rig release, level measurements are subject to the vagaries of weather, limiting the value. In short, there is no benefit prior to release and only limited value after release. The Industry Committee consensus is that this requirement should be eliminated.

19.15.17.12.A.8

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

This recommended modification adds sub-grade tanks to the general requirement to prevent the collection of surface water runon. The Industry Committee concurs that this is a reasonable requirement.

19.15.17.12.B.4

(4) The operator shall remove ~~all~~ free liquids from a **temporary** ~~drilling~~ pit within 45~~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 **or approve an alternative method providing equivalent protection**.

The Industry Committee agrees that removal of liquids from a temporary pit is an important step in minimizing potential contamination. These benefits are independent of whether a drilling or a workover pit is involved. The benefits of quicker removal need to be weighed against the problems with achieving it. Already, there are times during the year where trucking for liquids and liquid reuse/disposal cannot be timely arranged because equipment is not available or is available only at exorbitant rates (e.g., multiple overtime). Industry Committee members are also concerned about safety and trying to schedule heavy truck traffic at night. As a result of these concerns, the Industry Committee members recommend that the Commission require removal of free liquids from any temporary pit (drilling or workover) within 45 days. This provides an adequate period of time for liquids to be removed in the normal course and without having to resort to dangerous night time removal or overtime for already tired drivers.

In addition, the Industry Committee has several additional suggestions. First, not "all" liquids can be removed—there will be some small residual free liquids that is too little to be successfully removed by vacuum truck. The Industry Committee believes that this issue can be addressed by requiring the removal of free liquids.

Second, the Industry Committee believes that district offices should be authorized to approve an alternative method, such as enhanced evaporation, that achieves removal of the liquids within the 45 day period.

19.15.17.12.B.5

~~(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.~~

In light of the recommended modifications to proposed 19.15.17.12.B.4, the Industry Committee does not believe that B.5 is needed. The Industry Committee does not believe that there is any record evidence supporting different treatment for drilling and workover pits.

19.15.17.12.F

F. Sub-grade tanks. The operator shall not allow a sub-grade tank to overflow or allow surface water run-on to enter the sub-grade tank.

This recommended change adds an operating requirement for sub-grade tanks that they not be allowed to overflow or be filled by surface water run-on. The Industry Committee concurs that these are legitimate requirements for a sub-grade tank.

19.15.17.13.A.1, A.2, A.3

(1) An existing unlined, permitted or registered permanent pit shall be closed within two years after **approval of the closure plan pursuant to 19.15.17.17 NMAC.** ~~[the effective date of 19.15.17 NMAC]~~.

(2) An existing lined or unlined, permanent pit not permitted or registered shall be closed within **120**~~60~~ days after **approval of the closure plan pursuant to 19.15.17.17 NMAC**~~,~~

~~200 [effective date].~~

(3) An existing unlined, temporary pit shall be closed within three months after **approval of the closure plan pursuant to 19.15.17.17 NMAC** ~~[effective date]~~, ~~200 [effective date]~~.

These recommended changes require that closure occur within a set time after approval of the approved closure plan rather than from date of enactment. Mr. Price and Mr. von Gonten both testified to a large backlog of items requiring their attention. The district inspectors testified to similar backlogs. Industry representatives' testimony agreed that delays were seen. Because of the possibility of delays in processing closure plans, the closure period should run from the date of approval of the closure plan, not from the effective date of the rule. Conforming changes are proposed in proposed 19.15.17.17 to set times certain for submittal of closure plans to OCD for approval.

19.15.17.13.B.1.b

(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, **DRO** ~~TPH~~ and chlorides to demonstrate that the benzene concentration, as determined by EPA SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the **DRO** ~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed **2500** ~~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 **5000** ~~250~~ mg/kg, or the background concentration, whichever is greater. **The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg.** The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

Several changes are recommended to proposed 19.15.17.13.B.1.b for clarity and to better conform to the evidence presented to the Commission during the pit hearing.

First, it was undisputed that the field test for chloride is highly reliable. The Industry Committee recommends that this test be used for field testing of visually impacted soils rather than the slower, more expensive lab tests. Field testing allows quick evaluation of whether a problem may exist.

Second, Dr. Ben Thomas testified that it is individual constituents for the most toxic compounds that should be evaluated. He thus advocated the use of BTEX and DRO. The Industry Committee recommends that the division's long established benzene and BTEX standards of 0.2 and 50 mg/kg be used for the BTEX constituents and that DRO be used in lieu of TPH. In the Surface Waste Rule, 2500 mg/kg was established as a "safe" level for exposure to DRO and the Industry Committee recommends that the same level be used here. Unlike the Surface Waste Rule, all sites will be closed by cover and revegetation with at least one foot, so the total petroleum hydrocarbon standard is not necessary for aesthetic reasons. Revegetation is addressed by separate requirements.

Third, Dr. Thomas testified that the TPH standard is not needed for health reasons if the superior benzene, BTEX and DRO standard approach was followed. The Industry Committee therefore recommends that the TPH limit be eliminated (although 418.1 could be used in lieu of the more expensive 8015M test as an alternative).

As Dr. Thomas noted, chloride does not present a particular health risk. Given the size of the facilities, the Industry Committee recommends a 20:1 DAF consistent with NMED SSLs to protect the secondary drinking water standard of 250 mg/l. Accordingly, the Industry Committee recommends a 5000 mg/kg standard as being protective of groundwater in all cases. As Dr. Stephens' modeling showed, a higher chloride concentration may be helpful. However, because no engineering controls are in place for this type of closure, the Industry Committee believes that a more conservative 5000 mg/kg is appropriate.

The Industry Committee and expert testimony does not support use of the 250 mg/kg delineation standard. The Industry Committee reaches this conclusion for several reasons. First, the chloride standard is not a health based standard, but a secondary drinking water standard. It requires protection, but does not present an acute or chronic health concern. Second, the data from which Mr. Price derived his approach are not from pits, but from salt water disposal facilities, where the likelihood is less that a single spill resulted in the "enveloping" that he observed, but rather that multiple spills or leaks occurred over the life of the facility. Third, it is not clear what benefit is derived from delineating below protective levels, particularly in light of the questions over whether the enveloping observed by Mr. Price is related to a single spill or multiple spills. For temporary pits, only a single spill is anticipated due to the short life (months, rather than years) relative to the salt water disposal facilities. These should not exhibit the enveloping observed by Mr. Price in the short period of time before detection and closure. For tanks, the new leak detection rules provide even greater protection. Therefore, the Industry Committee recommends a 5000 mg/kg chloride level as protective of groundwater.

The final change recommended by the Industry Committee is to clarify that the visually impacted soils will be tested for chloride on a grab sample basis using the field chloride test kits. This will give the operator and field inspectors a quick, easy to use test that will quickly identify whether further work is needed in an area. Separating the requirements also allows clearer specification of grab samples for the visually impacted soil versus the composite general sample intended for BTEX, DRO and chloride under the first part of the paragraph.

19.15.17.13.B.2

(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.

This recommended change makes it clear that the requirements of subsection F will apply to any form of on-site burial. The change is necessitated by the Industry Committee's recommendation that both in-pit burial be allowed for certain cleaner sites (e.g., in the Northwest) in addition to the deep trench burial proposed in the division's initial proposal.

19.15.17.13.E-1.1

(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.

The recommended modification recognizes that "all" liquids and sludge cannot typically be removed because some may be beyond the ability of the vacuum truck or other unit to remove. Therefore, the Industry Committee suggests the removal of "all". A similar approach might be to use "all liquids and sludge **by normal means**" or similar qualifying statement.

19.15.17.13.E-1.4

(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 SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the **DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed **2500**~~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 **5000** ~~250~~ mg/kg, or the background concentration, whichever is greater. **The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg.** The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

Several changes are recommended to proposed 19.15.17.13.B.1.b for clarity and to better conform to the evidence presented to the Commission during the pit hearing.

First, it was undisputed that the field test for chloride is highly reliable. The Industry Committee recommends that this test be used for field testing of visually impacted soils rather than the slower, more expensive lab tests. Field testing allows quick evaluation of whether a problem may exist.

Second, Dr. Ben Thomas testified that it is individual constituents for the most toxic compounds that should be evaluated. He thus advocated the use of BTEX and DRO. The Industry Committee recommends that the division's long established benzene and BTEX standards of 0.2 and 50 mg/kg be used for the BTEX constituents and that DRO be used in lieu of TPH. In the Surface Waste Rule, 2500 mg/kg was established as a "safe" level for exposure to DRO and the Industry Committee recommends that the same level be used here.

Third, Dr. Thomas testified that the TPH standard is not needed for health reasons if the superior benzene, BTEX and DRO standard approach was followed. The Industry Committee therefore recommends that the TPH limit be eliminated (although 418.1 could be used in lieu of the more expensive 8015M test as an alternative).

As Dr. Thomas noted, chloride does not present a particular health risk. Given the size of the facilities, the Industry Committee recommends a 20:1 DAF consistent with NMED SSLs to protect the secondary drinking water standard of 250 mg/l. Accordingly, the Industry Committee recommends a 5000 mg/kg standard as being protective of groundwater in all cases. As Dr. Stephens' modeling showed, a higher chloride concentration may be helpful. However, because no engineering controls are in place for this type of closure, the Industry Committee believes that a more conservative 5000 mg/kg is appropriate.

The Industry Committee and expert testimony does not support use of the 250 mg/kg delineation standard. The Industry Committee reaches this conclusion for several reasons. First, the chloride standard is not a health based standard, but a secondary drinking water standard. It requires protection, but does not present an acute or chronic health concern. Second, the data from which Mr. Price derived his approach are not from pits, but from salt water disposal facilities, where the likelihood is less that a single spill resulted in the "enveloping" that he observed, but rather that multiple spills or leaks occurred over the life of the facility. Third, it is not clear what benefit is derived from delineating below protective levels, particularly in light of the questions over whether the enveloping observed by Mr. Price is related to a single spill or multiple spills. For tanks, the new leak detection rules provide even greater protection. Therefore, the Industry Committee recommends a 5000 mg/kg chloride level as protective of groundwater.

The final change recommended by the Industry Committee is to clarify that the visually impacted soils will be tested for chloride on a grab sample basis using the field chloride test kits. This will give the operator and field inspectors a quick, easy to use test that will quickly identify whether further work is needed in an area. Separating the requirements also allows clearer specification of grab samples for the visually impacted soil versus the composite general sample intended for BTEX, DRO and chloride under the first part of the paragraph.

19.15.17.13.F

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.

The recommended modifications make it clear that section F applies to any on-site closure, regardless of how it is styled.

19.15.17.13.F.1.a

~~(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.~~

For the reasons outlined in the Industry Committee's closing, the Committee does not believe that a legitimate reason has been presented for the so-called 100 mile radius rule. It is simply arbitrary. If cleanup is protective at greater than 100 miles from a landfill, it is also protective within 100 miles. Economic benefit for landfill operators resulting in a larger number of landfills is not an environmental measure and is not within the statutory authority of the Commission under the Oil and Gas Act, no matter how strained of an interpretation counsel for the division wishes to give it.

Similarly, the benefits of landfills in terms of reduced division oversight do not warrant the costs in increased emissions, advers health effects from emissions, injuries, deaths and property loss on a per unit of production basis. The Commission should reject this proposal. Voting for the 100 mile radius rule is a vote for the adverse consequences that it will entail. At a time when the legislature has enacted the Surface Owners Protection Act to give greater consideration to surface owners, the Industry Committee is deeply troubled by a division proposal to increase those aspects of oil and gas production that surface owners object to most strongly: increased truck traffic, dust and noise.

Finally, the division has not met its burden of proof on this issue. The division presented only back of the envelope calculations. Industry experts presented detailed costs. While it is true that some of the haulage distances may be off, that affects only the magnitude and is quickly addressed by using the SE numbers (which assume local landfills) to give an approximation of the NW with local landfills. Finally, the staff has not shown that any of the NMED landfills are willing to take this material even if authorized to do so.

19.15.17.13.F.1.c

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

This recommended modification addresses another major objection of the Industry Committee to the divison's proposed rule. As written, proposed 19.15.17.13.F.(1)(c) grants the surface owner an absolute veto over any development, regardless of the surface owner's rights to exercise such a veto. Far from removing the division and Commission from disputes, this provision virtually guarantees that the division and possibly the Commission will be an indispensable party to every disagreement because the surface owner can use this written approval requirement as an enforcement method to assert its rights or extort concessions, regardless of right under the law. The division and

Commission will then be joined in the litigation because otherwise there is no assurance that a court ruling between the parties will be of any effect.

Putting aside whether the division's proposal makes the mineral estate the servient estate, the safeguard is unnecessary. Exactly the same protection for the division and Commission could be gained by adding to the end of each division or Commission approval the following tagline: "This approval does not grant any right to access to or use of the surface." This simple disclaimer would allow the division to achieve its goal of precluding operators from claiming a Commission or division order as a basis for access and would also remove the Commission and division from disputes over access and use of the surface, minimizing exposure to unnecessary litigation.

There is no warrant for the draconian change proposed by the division. It is unnecessary to achieve the division's purpose. Notice is appropriate and the Industry Committee supports notice to the surface owner.

19.15.17.13.F.1.e-g [relocated to 19.15.17.13.F.2.g-i]

~~(e) The operator shall test the soils beneath the 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 SW846 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 SW846 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 C141. 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, nonwaste 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.~~

This recommended modification moves the provisions for testing under the former pit or drying pad location to the section on deep trench burial and specifies different standards for in-pit burial. Please see those sections for a detailed discussion of the rationale.

19.15.17.F.2.b

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

This recommended change clarifies that only a single deep trench burial is required for any drying pads or temporary pits associated with an APD. The purpose is to reverse the presumption that if multiple facilities are present at the same APD, each facility requires

a separate deep trench. Increased handling is undesirable and this provision corresponds with the statement of division intent made by Mr. Brad Jones during his cross-examination by the Industry Committee.

19.15.17.F.2.d

(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 **GRO/DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed 2500 mg/kg **and** ~~. Using EPA SW846 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 **24,800** ~~5,000~~ mg/**kg, or background, whichever is higher.** ~~I 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.~~

This recommended modification establishes the treatment standards for materials to be deposited in a deep trench burial. Consistent with the testimony of Dr. Stephens and Dr. Thomas, the Industry Committee recommends that a 2500 mg/kg GRO/DRO standard using Method 8015M be used to address volatile constituents. Consistent with the modeling work presented by Dr. Stephens, which uses the best available information that presents a reasonably conservative view of protection of groundwaters throughout New Mexico, a treated waste standard of 24,800 mg/kg chloride is recommended. After consideration, the Industry Committee believes that the mg/kg standard is preferable to the SPLP extraction because it is simpler to use and is amenable to field testing. The Industry Committee also believes that background, where higher, may also be an appropriate standard.

The Industry Committee opposes the WQCC standard reference for multiple reasons. First, as Dr. Thomas testified, none of these materials are present at levels and in the form that gives rise to groundwater concern. All will be in a stabilized, engineered containment structure with both a liner below and a cover above. Second, based on the testimony of Dr. Thomas, average concentrations are the best for evaluation because they represent the best estimate of contaminant mass present. Third, based on the modeling work of Dr. Stephens, concentrations from all pits (both Industry Committee and OCD sampling) are below the derived DAF for chloride, which is the most mobile constituent present. Therefore, if the highest observed average pit concentration is below the derived DAF level, even if the pit liner were to fail completely in a single moment, the Commission has a reasonable assurance that the treated material would not cause an exceedance of the WQCC standards.

The Industry Committee believes that the combination of engineering controls in the form of a bottom 12-mil LLDPE string-reinforced liner (or equivalent), stabilization treatment, top 12-mil LLDPE string reinforced liner (or equivalent) and four foot of cover (including one foot of topsoil) to support revegetation represents excellent protectiveness for groundwater and for future surface uses of the area. Furthermore, Dr. Thomas has

testified, and the Industry Committee sampling effort bears out, that materials treated to these levels will not present a threat to humans or others in the event of direct exposure, and Dr. Stephens modeling shows no significant threat to groundwater. Therefore, the deep trench burial approach is fully protective.

19.15.17.13.F.2.f-2 to f-3 [relocated from F.1.g-i]

(f-2) 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; and analyze for BTEX, DRO and chlorides to demonstrate that the benzene concentration, as determined by EPA SW846 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 DRO concentration, as determined by EPA method 8015M or other EPA method that the division approves, does not exceed 2500 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5000 mg/kg, or the background concentration, whichever is greater. The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg. The operator shall notify the division of its results on form C141. The division may require additional delineation upon review of the results.

(f-3) 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 temporary pit excavation with compacted, nonwaste 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.

This recommended modification moves the testing requirements from F.1 to F.2 and adjusts the testing requirement to be the same as proposed for testing under a pit using the "dig and haul" approach in B.1. The justification for this recommendation is that it consolidates all deep trench burial specific requirements in F.2 and treats under the pit evaluations the same under both proposed sections B and F of proposed 19.15.17.13.

19.15.17.13.F.3 [new section: in-pit burial]

(3) In-pit 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 on-site burial in the temporary pit ("in-pit burial") for closure of any drying pad associated with a closed-loop system or temporary pit associated with that APD other than the pit selected for in-pit burial.

(c) The operator shall collect at a minimum, a five point, composite sample of the treated contents proposed for on-site burial to demonstrate that the benzene concentration, as determined by EPA SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; DRO concentration, as determined by EPA method 8015M or other EPA method that the division approves, does not exceed 2500 mg/kg, and that the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5000 mg/kg.

(d) 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 the selected lined temporary pit. The combined temporary pit and excavated materials shall pass the paint filter liquids test (EPA SW 846, method 9095).

_____ (e) The operator shall cover the geomembrane lined and covered, filled, pit with compacted, nonwaste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and revegetation 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.

This recommended modification introduces the concept of "in-pit burial." It is meant as a supplement to deep trench burial when the temporary pit or drying pad poses a relatively small risk to human health, the environment, or groundwater. In in-pit burial, all materials that would be buried on-site are transferred into a single lined pit, mixed to assure geotechnical stability and compliance with the treatment standards, and then closed under a cover with 4 feet of cover (including 1 foot of topsoil). The area is then revegetated.

Paragraph (a) requires the operator to meet the general standards in F.1.

Paragraph (b) limits in-pit burial to materials derived from that APD. This is consistent with Mr. Brad Jones' testimony about the division's intent in restricting materials to the APD to remain consistent with Rule 36.

Paragraph (c) establishes the treatment standards for the material to be buried in pit. Unlike deep trench burial, where the area under the former pit location is known to be clean, it is not known whether the area under the pit location has been affected. Therefore, more stringent standards are used to minimize the potential impact on the groundwater. First, instead of GRO/DRO, as used for deep trench burial, a full benzene, BTEX and DRO evaluation is used for the treated materials. Second, a 5000 mg/kg chloride standard (representing a conservatively protective DAF of 20) is used instead of the DAF derived by Dr. Stephens from his model. This approach is used solely for in-pit burial solely to reflect the difference in knowledge between the deep trench burial and in-pit burial situations. In deep trench, the Commission knows that contamination does not exist under the former pit location and that therefore the underlying assumptions behind the NMED SSL document are not met (the NMED migration to groundwater assumes that contamination stretches from the ground surface to the groundwater at the same concentration). Therefore, use of Dr. Stephens' derived value is deemed appropriate for deep trench burial. For in-pit burial, use of the NMED 20 DAF value is still conservative since it is unlikely that the entire soil column would be contaminated to groundwater given the operational safeguards under proposed Rule 17 and the relatively short period of operation for a temporary pit or drying pad.

Paragraph (d) requires all materials to be disposed in the in-pit burial and specifies that the material must meet the paint filter test (to avoid excess wetness) prior to closure.

Paragraph (e) establishes the cover and revegetation requirements. These are identical to deep trench burial.

19.15.17.13.G.2

(2) The soil cover for on-site ~~deep trench~~ burial shall consist of a minimum of four feet of compacted, nonwaste 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.

The recommended modification makes the cover requirements to all on-site burial alternatives, whether deep trench, in-pit, or alternative approved by the Santa Fe bureau.

19.15.17.13.H.1

The Industry Committee believes that the proposed revegetation requirements in proposed 19.15.17.13.H.1 accurately reflect the industry's obligations under existing law and SOPA. The Industry Committee members are prepared to comply with this obligation and, as Dr. Buchanan testified, should be able to achieve this revegetation standard with the cover provided in proposed 19.15.17.13.G.

Commissioner Bailey inquired about use of the Rule 36 standard. The Industry Committee believes that this is a possible alternative standard, but notes that Dr. Buchanan noted that revegetation should not be judged a failure until approximately five years had passed without successful growth. If the Rule 36 standard is used, the Industry Committee believes it should be modified slightly to reflect Dr. Buchanan's testimony in the case to read as follows:

(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 revegetation of the site. Re-vegetation shall consist of establishment of a vegetative cover equal to 70 percent of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) or a scientifically documented ecological description consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. **Reseeding may be required if the cover is not successfully established within five years of completion of closure.**

Under this alternative, the Industry Committee understands that it is released from further obligation if it maintains the cover successfully for two successive growing seasons and that it may be required to reseed if the cover has not been established within five years of completion of closure, consistent with the testimony of Dr. Buchanan concerning the drought and growth cycle in New Mexico.

19.15.17.15.A.1

(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~~ **prevents the contamination of** fresh water, **or protects** 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 70223, 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.

The recommended modification clarifies that the standard for granting an exception is prevention of the contamination of freshwater and protection of public health and the environment. For this exception, which is granted by the Environmental Bureau, the question should be whether the proposal is protective of the Commission's and division's statutory charge. The "equivalent or better" standard is not appropriate because the proposal may be inherently different than the standards set forth in the proposed rule, making equivalent or better difficult to evaluate. In any event, for the general exception, the Commission's and division's statutory charge is the appropriate standard for granting or denying the exception since it is an individualized review.

19.15.17.15.A.2-3

~~(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.~~

The Industry Committee does not believe that the exception process stated above, which is strictly limited to the Commission's and division's statutory charge, warrants the burdensome public notice and comment provisions. At most, the Industry Committee

supports notice to the affected surface owner consistent with the "good neighbor" policy of the New Mexico Oil and Gas Association and the Independent Petroleum Association of New Mexico.

19.15.17.15.B.1

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

See comments above. The Industry Committee believes that the only appropriate standard is the statutory standard established by the legislature for protection of fresh water, public health and the environment.

19.15.17.15.B.2

(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**n approved** manner ~~that the environmental bureau in the division's Santa Fe office approves~~.

The recommended modification allows recycling in any manner that has already been approved by either a relevant district office or the Environmental Bureau. The recommended modification also addresses the physical impossibility of removing "all" free liquids.

19.15.17.16.A.

A. The division shall review all applications to permit facilities subject to 19.15.17 NMAC, and ~~may~~ **shall** approve, deny or approve an application with conditions **within 60 days of receipt**. 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. **If the division does not approve, deny, or approve with conditions an application within 60 days of receipt, the matter will be set for the next commission hearing.**

The recommended modification provides for a time period within which the division must act and provides that if the division does not act, the matter will be set for the next commission hearing unless the parties otherwise stipulate. Some processing provision of this nature is needed to prevent veto by division inaction on a petition.

19.15.17.16.G

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

This recommended modification clarifies that the district offices (and the Environmental Bureau) may act by email or equivalent in addition to written statement. This was implied by Mr. Brad Jones in his testimony and provides the formal authorization for use of these alternative measures. Explicit approval of these labor saving measures is needed if work in the field is not to come to a stop because the rule generally forbids verbal approvals as used by several of the district offices.

19.15.17.16.H [new section]

H. If a hearing is scheduled on an application, the hearing shall be conducted according to 19.15.14.1206 through 19.15.14.1215 NMAC.

This recommended modification specifies the hearing rules used in the event of a hearing. While probably addressed by the existing structure of the Commission's rules, it is a useful clarification for operators and district offices.

19.15.17.17.A

A. After_____, 200_ [effective date], **applications for** unlined temporary pits are prohibited.

This proposed recommended modification prohibits applications for unlined temporary pits after the rule effective date. Unlined temporary pits are phased out in accordance with proposed 19.15.17.13. This avoids a conflict between the provisions and the need for approved closure plans.

19.15.17.17.B

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 **90**~~30~~ days after_____, 200_ [effective date].

This recommended modification provides a more realistic time frame for submittal of closure plans. The Environmental Bureau already has over 200 backlogged evaluations. The districts are similarly overbooked. Operators may have multiple facilities that require addressing. Ninety days is a more reasonable time than 30 and will avoid numerous requests for extension to the division and Commission.

19.15.17.17.C

C. Within 180 days after_____, 200_ [effective date], an operator of an existing lined, permitted, permanent pit shall request a modification pursuant to Subsection E of 19.15.17.16 NMAC. Within 180 days after_____, 200_ [effective date], an operator of an existing lined, registered, permanent pit shall apply to the division for a permit pursuant to 19.15.17 NMAC.
An operator of an existing lined, permitted or registered, permanent pit shall comply with the construction requirements of 19.15.17.**11** NMAC within **eighteen months after permit modification or issuance.**~~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.~~

The recommended modification establishes a two step process for bringing pits into compliance. First, a definite deadline for submitting the permit application or modification application is established. Second, a deadline for completing the physical work needed to meet the standard is established from the date the permit application or permit modification is granted. This is necessary to prevent an operator from failing to come into compliance because no permit has yet been granted.

19.15.17.17.D

D. An operator of an existing below-grade tank shall **apply for a permit or permit modification pursuant to** ~~comply with the permitting requirements of~~ 19.15.17 NMAC within 90 days after_____, 200_ [effective date]. **An operator of an existing below-grade tank shall comply with the construction requirements of 19.15.17.11 within one year of permit issuance.** ~~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.~~

This recommended modification provides for a schedule for an operator of a below-grade tank to submit a permit application or modification application, receive the permit or modification, then upgrade the below-grade tank within a reasonable period of time. This provision is necessary in the event grant of the permit or modification is delayed by reasons beyond the operator's control.

19.15.17.17.E

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.**12 and 19.15.17.13** NMAC.

(2) An operator of an existing permitted or registered, temporary pit shall comply with the operational and closure requirements of 19.15.17.**12 and 19.15.17.13** NMAC.

(3) An operator of an existing below-grade tank shall comply with the operational and closure requirements of 19.15.17.**12 and 19.15.17.13** 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.**11** NMAC into compliance with those requirements or close it within five years after _____, 200_ [effective date].

The recommended modification clarifies what are the "operational and closure" requirements to avoid ambiguity and future dispute. Mr. Jones in his cross-examination agreed that these were the relevant operational and closure provisions.

19.15.17.17.G

G. An operator of an existing sump shall comply with the operational requirements of 19.15.17.**12** NMAC.

The recommended modification clarifies what are the "operational and closure" requirements to avoid ambiguity and future dispute. Mr. Jones in his cross-examination agreed that these were the relevant operational and closure provisions.

ATTACHMENT C

New Mexico Industry Committee
Final Recommended Modifications to Proposed Pit Rule
Case No. 14015

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 1 GENERAL PROVISIONS AND DEFINITIONS

19.15.1.7 Definitions

B. Definitions beginning with the letter "B".

* * * *

(5) Below-grade tank shall mean a vessel, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls are below the ground surface **and are not visible**.

* * * *

P. Definitions beginning with the letter "P"

* * * *

(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 **and storm water or run-on control**.

* * * *

S. Definitions beginning with the letter "S"

* * * *

(8A) Sub-grade tank shall mean a vessel intended for the storage of produced water and incidental hydrocarbons, excluding sumps and pressurized pipeline drip traps, where a portion of the tank's sidewalls are below the ground surface, but are visible. **For tanks installed after [rule effective date], the bottom of the tank must also be either visible for inspection or an impermeable deflection liner must be placed under the tank bottom to allow visual inspection of the liner edge for leaks from the tank bottom.**

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 17 PITS, CLOSED-LOOP SYSTEMS, BELOW-GRADE TANKS, SUB-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 7026, Section 70211 and Section 70212.
[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, **sub-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 OR REGISTRATION 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.

C. A single permit may be issued for all pits, below-grade tanks and closed-loop systems or other division-approved alternative methods associated with a single APD.

D. A person shall not use a sub-grade tank except after registering it with the division.

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

19.15.17.9 PERMIT APPLICATION; REGISTRATION:

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~~ **an** 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' **requirements**~~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 **compliance with the siting standards of 19.15.17.10 NMAC**~~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' **requirements** ~~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' **requirements**~~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 **compliance with the siting standards of 19.15.17.10 NMAC**~~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 C144, 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 C144, and all required attachments with the appropriate division district office.

E. **Registration of sub-grade tanks. An operator shall file an registration, form**

C144SGT, 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~~ **30** feet of any other **significant** 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. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles.**

(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 3273, 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 **30**~~200~~ feet of any other **significant** 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. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles;**

(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 3273, 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~~ **30** feet of any other **significant** 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. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles;**

(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 **30** ~~200~~ feet of any other **significant** watercourse, lakebed, sinkhole or playa lake (measured from the ordinary highwater mark), unless the division approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected. **For purposes of 19.15.17.10 only, a significant watercourse is any watercourse with defined bed and bank either named on a USGS 7.5 minute quadrangle map or a first order tributary to such a watercourse, if that watercourse drains an area of at least five square miles;**

(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 3273, 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 NMACRp, 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, **sub-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 **or sub-grade tank**, unless the pit, closed-loop system, ~~or~~ below-grade tank **or sub-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 **or sub-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 **or sub-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, below-grade tank **or sub-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, below-grade tank **or sub-grade tank** to exclude wildlife and livestock, with at least four strands of barbed wire in the interval between one foot and **four**~~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 **liquids** 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~~ **12**-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. The seams shall be welded.

(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, **proper sloping** 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. The operator shall not allow freestanding fluids to remain on the unlined part of a temporary pit used to vent or flare gas.

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 cleanout 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 acrefeet, 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) A below-grade tank shall be constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.

(2) A below-grade tank shall be constructed to prevent overflow and the collection of surface water run-on.

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

(4) A below-grade tank system shall consist of either a double walled tank with the capability to detect leaks or a single walled 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.

(5) 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 **(3)**~~(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 **20mil LLDPE liner**~~30mil flexible PVC or 60mil 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 SW846 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.

I-2. Sub-grade tanks. The operator shall design and construct a sub-grade tank in accordance with the following requirements.

(1) A sub-grade tank shall be constructed of materials resistant to the sub-grade tank's particular contents and resistant to damage from sunlight.

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

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

(4) A sub-grade tank system installed after [rule effective date] shall consist of either a double walled tank with the capability to detect leaks or a single walled tank placed upon an impermeable deflection liner so that leaks are capable of being visually detected, or an alternative system that the appropriate division district office approves based upon the operator's demonstration that the alternative provides equivalent protection.

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 **12**~~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 SW846 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. The seams shall be welded.

(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 **12**~~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 SW846 method 9090A. [19.15.17.11 NMACRp, 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, **sub-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, reclaim **or dispose** all drilling fluids in a manner **approved by division rules** that prevents the contamination of fresh water and protects public health and the environment ~~and that the appropriate division district office approves~~.

(3) The operator shall not discharge into or store any hazardous waste in a pit, closed-loop system, below-grade tank, **sub-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, **sub-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 **temporary** ~~drilling~~ pit within **45**~~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 **or approve an alternative method providing**

equivalent protection.

~~(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.

F. **Sub-grade tanks. The operator shall not allow a sub-grade tank to overflow or allow surface water run-on to enter the sub-grade tank.**

[19.15.17.12 NMACRp, 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 **approval of the closure plan pursuant to 19.15.17.17 NMAC**~~, [the effective date of 19.15.17 NMAC]~~.

(2) An existing lined or unlined, permanent pit not permitted or registered shall be closed within **120**~~60~~ days after **approval of the closure plan pursuant to 19.15.17.17 NMAC**~~, 200_ [effective date].~~

(3) An existing unlined, temporary pit shall be closed within three months after **approval of the closure plan pursuant to 19.15.17.17 NMAC**~~, 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, **DRO**~~TPH~~ and chlorides to demonstrate that the benzene concentration, as determined by EPA SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the **DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed **2500**~~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 **5000** ~~250~~ mg/kg, or the background concentration, whichever is greater. **The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg.** 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 SW846 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 C141. 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-1. 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 SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the **DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed **2500**~~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 **5000** ~~250~~ mg/kg, or the background concentration, whichever is greater. **The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg.** 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.

E-2. Closure method for sub-grade tanks.

(1) The operator shall remove liquids and materials from a sub-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 sub-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it.

(3) If there is any on-site equipment associated with a sub-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 sub-grade tank to determine whether a release has occurred. The operator shall collect, at a minimum, five individual grab samples from under the tank plus any visually-observed impacted soils; and analyze for chlorides to demonstrate that the chloride concentration, as determined by a field test kit that the division approves, does not exceed 5000 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C141. The division may require additional delineation upon review of the results.

(5) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (5) of Subsection E-2 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 **notify the surface owner of the** ~~obtain the surface owner's written consent to the~~ operator's proposal of an on-site closure method. The operator shall attach the original **notification** ~~, 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 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 SW846 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 SW846 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 C141. 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, nonwaste 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**n** ~~separate~~ on-site deep trench for closure of **any** ~~each~~ drying pad associated with a closed-loop system or temporary pit **associated with that APD**.

(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 **GRO/DRO**~~TPH~~ concentration, as determined by EPA method **8015M** ~~418.1~~ or other EPA method that the division approves, does not exceed 2500 mg/kg **and** ~~. Using EPA SW846 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 **24,800** ~~5,000~~ mg/**kg, or background, whichever is higher.** ~~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-1) 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.

(f-2) 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; and analyze for BTEX, DRO and chlorides to demonstrate that the benzene concentration, as determined by EPA SW846 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 DRO concentration, as determined by EPA method 8015M or other EPA method that the division approves, does not exceed 2500 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5000 mg/kg, or the background concentration, whichever is greater. The operator shall also test any visually impacted soils for chloride using a division-approved field test to ensure that such visually impacted soils do not exceed 5000 mg/kg. The operator shall notify the division of its results on form C141. The division may require additional delineation upon review of the results.

(f-3) 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 temporary pit excavation with compacted, nonwaste 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. 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, nonwaste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and revegetation 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.

(3) In-pit 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 on-site burial in the temporary pit ("in-pit burial") for closure of any drying pad associated with a closed-loop system or temporary pit associated with that APD other than the pit selected for in-pit burial.

(c) The operator shall collect at a minimum, a five point, composite sample of the treated contents proposed for on-site burial to demonstrate that the benzene concentration, as determined by EPA SW846 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 SW846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; DRO concentration, as determined by EPA method 8015M or other EPA method that the division approves, does not exceed 2500 mg/kg, and that the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 5000 mg/kg.

(d) 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 the selected lined temporary pit. The combined temporary pit and excavated materials shall pass the paint filter liquids test (EPA SW 846, method 9095).

(e) The operator shall cover the geomembrane lined and covered, filled, pit with compacted, nonwaste containing, earthen material; construct a division-prescribed soil cover; and re-vegetate the site. The division-prescribed soil cover and revegetation 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, nonwaste 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. Revegetation 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 revegetation, which shall not include noxious weeds, through two successive growing seasons.

(2) The operator may propose an alternative to the revegetation 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 C144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan; and details on backfilling, 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 NMACRp, 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 NMACRp, 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~~ **prevents the contamination of** fresh water, **or protects** 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 70223, 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 **protects** ~~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**n approved** 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 NMACRp, 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~~ **shall** approve, deny or approve an application with conditions **within 60 days of receipt**. 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. **If the division does not approve, deny, or approve with conditions an application within 60 days of receipt, the matter will be set for the next commission hearing.**

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 70223, 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, **email or equivalent**.

H. **If a hearing is scheduled on an application, the hearing shall be conducted**

according to 19.15.14.1206 through 19.15.14.1215 NMAC.
[19.15.17.16 NMACRp, 19.15.2.50 NMAC, //07]

19.15.17.17 TRANSITIONAL PROVISIONS:

A. After_____, 200_ [effective date], **applications for** 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 **90**~~30~~ days after_____, 200_ [effective date].

C. **Within 180 days after _____, 200_ [effective date], an operator of an existing lined, permitted, permanent pit shall request a modification pursuant to Subsection E of 19.15.17.16 NMAC. Within 180 days after _____, 200_ [effective date], an operator of an existing lined, registered, permanent pit shall apply to the division for a permit pursuant to 19.15.17 NMAC.** An operator of an existing lined, permitted or registered, permanent pit shall comply with the construction requirements of 19.15.17**.11** NMAC within **eighteen months after permit modification or issuance.**~~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 **apply for a permit or permit modification pursuant to** ~~comply with the permitting requirements of~~ 19.15.17 NMAC within 90 days after_____, 200_ [effective date]. **An operator of an existing below-grade tank shall comply with the construction requirements of 19.15.17.11 within one year of permit issuance.** ~~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**.12 and 19.15.17.13** NMAC.

(2) An operator of an existing permitted or registered, temporary pit shall comply with the operational and closure requirements of 19.15.17**.12 and 19.15.17.13** NMAC.

(3) An operator of an existing below-grade tank shall comply with the operational and closure requirements of 19.15.17**.12 and 19.15.17.13** 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**.11** 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**.12** NMAC.
[19.15.17.17 NMACRp, 19.15.2.50 NMAC, //07]