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

Application of the New Mexico Oil Conservation Division for Repeal ) Of Existing Rule 50 Concerning Pits and Below Grade Tanks and ) Adoption of a New Rule Governing Pits, Below Grade Tanks, Closed ) Loop Systems and Other Alternative Methods to the Foregoing, ) and Amending Other Rules to Make Conforming Changes Statewide. )

CASE NO. 14015

# **REDLINE/STRIKEOUT CHANGES OFFERED BY THE NEW MEXICO CITIZENS FOR CLEAN AIR & WATER**

## **PART I: RECOMMENDED CHANGES**

Changes are indicated as: <u>deleted</u> <u>inserted</u>. Items are numbered for association with the reasons presented in Part II of this document.

## **19.15.17.9 PERMIT APPLICATION:**

## Change #1:

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.

 $\begin{array}{c} (\underline{21}) \dots \\ (\underline{32}) \dots \\ (\underline{43}) \dots \end{array}$ 

## **19.15.17.10 SITING REQUIREMENTS:**

### Change #2:

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

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

(2) within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark), unless the division approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected;
(3) within 300 feet from a permanent residence, school, hospital, institution or church in existence at the time of initial application;

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

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

(6) within 500 feet of a wetland;

(7) within the area overlying a subsurface mine, unless the division specifically approves the proposed location based upon the operator's demonstration that subsurface integrity will not be compromised;
(8) within an unstable area, unless the operator demonstrates that it has incorporated engineering measures into the design to ensure that the on-site closure method will prevent contamination of fresh water and protect public health and the environment; or

----- (9) within a 100-year floodplain.

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

## **19.15.17.11 DESIGN AND CONSTRUCTION SPECIFICATIONS:**

## Change #3:

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

### Change #4:

**G.** Permanent pits.

(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 test a seam by establishing an air pressure between 33 and 37 psi in the pocket, and monitoring that the pressure does not change by more than one percent during five minutes after the pressure source is shut off from the pocket. 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.

## <u>Change #5</u>:

I. Below-grade tanks.

(1) The below-grade tank's side walls, where the tank's bottom is below-grade, shall be open for visual inspection for leaks. The below-grade tank's bottom shall be equipped with an underlying mechanism to divert leaked liquid to a location that can be visually inspected. A below-grade tank not meeting these conditions shall be in a vault or have a double wall that will contain any leaked liquidssatisfy the conditions of Paragraph (5) of Subsection I of 19.15.17.11 NMAC.

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

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

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

(25) A below-grade tank <u>not meeting the conditions of Paragraph (1) of Subsection I of 19.15.17.11</u> <u>NMAC</u> shall have secondary containment and leak detection in accordance with the following requirements.

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

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

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

(ai) The operator shall install a geomembrane liner upon the constructed foundation, specified in Paragraph (53) of Subsection I of 19.15.17.11 NMAC, prior to the placement of the collection system and tank. The installed geomembrane liner shall extend above the existing grade. The liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material that the appropriate division district office approves. The geomembrane liner shall have a hydraulic conductivity no greater than 1 x 10<sup>-9</sup> 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.

(bii) 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.

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

(div) 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.

(ev) 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.

## Change #6:

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

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

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

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

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

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

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

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

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

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

(10) The geomembrane cover shall consist of a 20-mil string reinforced LLDPE liner or equivalent cover that the appropriate division district office approves. The geomembrane cover shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. Cover compatibility shall comply with EPA SW-846 method 9090A. [19.15.17.11 NMAC-Rp, 19.15.2.50 NMAC, //07]

## **19.15.17.12 OPERATIONAL REQUIREMENTS:**

## Change #7:

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

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(4) If the integrity of the<u>any</u> 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 <u>any liner of a lined pit develops a leak</u>, 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. As an example, a visible ruler marked in intervals of one foot on the side wall liner of a pit would satisfy this requirement.

## Change #8:

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**C.** Permanent pits. An operator shall maintain and operate a permanent pit in accordance with the following <u>additional</u> requirements.

## **19.15.17.13 CLOSURE REQUIREMENTS:**

#### Change #9:

**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 spotarea that is wet, discolored, or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 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 250 mg/kg, or the background concentration <u>plus 50 mg/kg</u>, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

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

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

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### Change #10:

C. Closure method for permanent pits.

(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 spotarea that is wet, discolored, or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 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 250 mg/kg, or the background concentration plus 50 mg/kg, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(4)

(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 GF of 19.15.17.13 NMAC and Subsection HG of 19.15.17.13 NMAC.

### <u>Change #11</u>:

**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.

(32) 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.

## Change #12:

E. Closure method for below-grade tanks.

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(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 spotarea that is wet, discolored, or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 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 <u>plus</u> 50 mg/kg, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

## Change #13:

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 and Subsection B of 19:15:17:15 NMAC. 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

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division-approved facility nor an out-of-state waste management facility is available within the prescribed distance, then the operator may pursue the on-site closure method.

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

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

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

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

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

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

(2) On-site deep trench burial.

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

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

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

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

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

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

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

**GF.** Soil cover designs.

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### Change #14 :

**HG.** Re-vegetation requirements:

(1) Upon completion of closure, the operator shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations, by placement of the soil cover and re-vegetation of the site, and maintain the cover established by re-vegetation, which shall not include noxious weeds, through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation.

**IH.** Closure notice.

## **19.15.17.15 EXCEPTIONS:**

#### Change #15:

A. General exceptions.

(1) The operator may apply to the environmental bureau in the division's Santa Fe office for an exception to a requirement or provision of 19.15.17 NMAC other than the permit requirements of 19.15.17.8 NMAC; the closure requirement of Subparagraph (c) of Paragraph (1) of Subsection F of 19.15.17.13 NMAC; the exception requirements of 19.15.17.15 NMAC; or the permit approval, condition, denial, revocation, suspension, modification or transfer requirements of 19.15.17.16 NMAC. The environmental bureau in the division's Santa Fe office may grant an exception from a requirement or provision of 19.15.17 NMAC, if the operator demonstrates to the satisfaction of the environmental bureau in the division's Santa Fe office that the granting of the exception provides equivalent or better protection of fresh water, public health and the environment. The environmental bureau in the division's Santa Fe office may revoke an exception after notice to the operator of the pit, closed-loop system, below-grade tank or other proposed alternative and to the surface owner, and opportunity for a hearing, or without notice and hearing in event of an emergency involving imminent danger to fresh water, public health or the 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 eounty where the pit, closed-loop system, below-grade tank or other proposed alternative will be locatedstate. Required written and public notices require the environmental bureau in the division's Santa Fe office's approval. Within one day of the time when the environmental bureau issues approval of the notice, the Division shall place the notice on the Division's web site, and shall distribute the notice via email to the Division's list of persons who receive docket notices. 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 mayshall 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.

## Change #16:

**B.** Alternative closure methods.

(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.

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

### Change #17:

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 <u>Any modification that is equivalent to an exception of any paragraph of 19.15.17 NMAC shall be subject to the notice and approval procedures required for an exception.</u> 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 protection of fresh water, public health or the environment. The division shall notify the operator by certified mail, return receipt requested, of any intended revocation, suspension or imposition of addition conditions, and the operator shall have 10 days after receipt of notification to request a hearing. The division may suspend a permit or impose additional conditions or limitations without hearing in an emergency to forestall an imminent threat to fresh water, public health, safety or the environment, subject to the provisions of NMSA 1978, Section 70-2-23, as amended.

## PART II: REASONS FOR THE RECOMMENDED CHANGES

## <u>Change #1 -- 19.15.17.9 C (1):</u>

We suggest deleting all on-site burial, including the 100-mile limit, in subsequent parts of the rule. If that is done, C(1) is no longer needed.

## Change #2 -- 19.15.17.10 C (1):

If on-site burial is deleted from the rule, this paragraph is not needed. If, contrary to our suggestion, on-site burial is approved, the specification of (1) for a depth of 50 feet to ground water should be changed from 50 feet to 100 feet as added protection for ground water. Testimony has shown that soluble wastes are likely to move to ground water, even at the 100-foot depth.

#### Change #3 -- 19.15.17.11 C:

We suggest deletion of the accidentally duplicated words in the second sentence.

### Change #4 -- 19.15.17.11 G:

The OCD wording literally states that the initial test pressure must be within one percent of 35 psi. This would require use of an instrument with one percent absolute accuracy, as contrasted with one percent precision. That may appear to be a trivial concern, but it can represent a large difference in the price and ruggedness of an instrument. Some pressure transducers are sensitive to temperature and other environmental factors, and may not provide one percent absolute accuracy although they can indicate a one percent change. Our suggested wording would allow the operator to establish a test pressure near 35 psi, and use an instrument that can detect a one percent change, which is the object of the test. The intent of the rule is not altered by our suggested wording.

#### Change #5\_-- 19.15.17.11 I:

Our suggested changes and re-ordering of the paragraphs assure that a below-grade tank would be required either to have visible side walls AND an underlying deflection mechanism to reveal leaks from the bottom, or else to have secondary containment established by a double wall or a geomembrane collection system. We believe this was the intent of the Task Force. The proposed wording is confusing.

The proposed wording is likely to be interpreted to require secondary containment on *all* belowgrade tanks, including those with visible side walls and the underlying deflection mechanism. As originally proposed, the last sentence of I(1), implies that any below-grade tank that has an underlying leak diverter would not require a vault or double wall. However literal interpretation of the rest of the proposed 19.15.17.11 I NMAC requires that conditions specified by I(1), I(2), and I(6) must all be applied to that same tank. That is, a below-grade tank would need an underlying diverter to visually reveal a leak from the bottom (condition 1), while also requiring

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secondary containment (condition 2) and a double wall or geomembrane envelope (condition 6), even though I(1) implies that only a tank without a diverter must have a double wall. This is not logically consistent. Testimony ascribed this difficulty to the definition of below-grade tanks. We suggest instead that Paragraph I needs revision. Deleting the proposed definition might allow many tanks to remain outside the definition, and thereby beyond regulation.

#### <u>Change #6 -- 19.15.17.11 J:</u>

We suggest deletion of the entire paragraph that specifies on-site deep trench burial, and all references to deep trench burial in the rule. As proposed, the rule permits deep trench burial of wastes containing extremely large concentrations of chloride, but only within complicated specifications including the 100 mile limit. The 100-mile limit has only an indirect relationship to environmental protection.

During deliberations of the Task Force, we suggested a limit on burial based on concentrations of harmful species in the waste--much as the landfarm closure standards are based on the concentrations of contaminants. At that time, some members representing the industry were not interested in such a condition in the rule. However, during the closing arguments, the Industry Committee proposed closure in place when chloride of "stabilized" (diluted) material is less than 5,000 mg/kg. In both the pit rule hearing and in the surface waste rule hearing, testimony showed that such concentrations of chloride are toxic to biota. Nonetheless, the Industry Committee's closing request for standards based on concentrations. The environmental concentration limits for harmless on-site burial were not established during the hearing, so a rule based on concentration limits would require an additional rulemaking procedure. Furthermore, testimony argued that widespread on-site burial can generate a prejudice on future uses and value of the land. We note that the rule will be greatly simplified, made logical, and firmly based on environmental protection if the provisions for on-site burial are deleted from the rule.

<u>Change #7 -- 19.15.17.12 A:</u>

(4) and (5): Particularly because permanent pits use double liners, we suggest inserting terms of "any liner" so than no confusion can arise regarding whether the rule refers to a primary liner or a secondary liner.

(6): At least one witness in the hearing felt that a level monitoring device would be unduly complicated or troublesome. In Paragraph (6) we suggest providing a simple example of a level measuring device, as envisioned by the Task Force.

## Change #8 -- 19.15.127.12 C:

Some requirements for permanent pits are specified in other parts of the rule, as, for example, in the preceding Subsection A. Therefore, we suggest making this paragraph more clear by explicitly indicating that it provides additional requirements, not all of the requirements.

### Change #9 -- 19.15.17.13 B:

(1)(b): Here, and under Changes #10 and #12, we suggest replacing the undefined term "hot spot" with a more descriptive phrase. We also suggest, when a chloride concentration is specified not to exceed background, that the standard be 50 mg/kg in addition to the background value. The allowed additional 50 mg/kg would add very little environmental threat, but might avoid uncertainties and arguments over the measurements of a background value, which vary from sample to sample.

(1)(d): Subsections are renumbered to accommodate other recommendations we are making.

(2): In concert with our recommendations under Change #6, we suggest deleting reference to onsite deep trench burial.

<u>Change #10 -- 19.15.17.13 C:</u>

See Change #9 regarding replacement of the term, "hot spot."

<u>Change #11 -- 19.15.17.13 D:</u>

In concert with our recommendations under Change #6, we suggest deleting reference to on-site deep trench burial and renumbering the paragraphs.

Change #12 -- 19.15.17.13 E:

See Change #9 regarding replacement of the term, "hot spot."

Change #13 -- 19.15.17.13 F:

In concert with our recommendations under Change #6, we suggest deleting reference to on-site deep trench burial.

Subsections originally numbered as G, H, and I are renumbered.

<u>Change #14 -- 19.15.17.13 H (renumbered to G):</u>

The two successive growing seasons that prove established vegetation should be conducted without artificial irrigation. Although this may have been understood, it has not been made explicit. This does not prohibit the use of irrigation to establish the growth initially.

## <u>Change # 15 -- 19.15.17.15 A:</u>

(1): Citation of the proposed Subsection F is deleted because it would be improper if on-site burial is deleted from the rule as we suggest.

(2): As the rule was proposed, notice of application for an exception would be sent only to the surface owner and appear as a one-time publication in a local newspaper. We note that exception to the pit rule is likely to be of state-wide interest, both to the concerned public and to operators, because an exception might, in effect, nullify the rule in some particular unforeseen circumstances. Therefore we strongly suggest a wider distribution of notice. Our suggested distribution of the notice would not increase the burden on the operator.

#### <u>Change #16 -- 19.15.17.15 B:</u>

Paragraph (3) of Subsection B of Section 15 provides that an operator may apply for an exception to the closure conditions if that operator offers equivalent environmental protection, removal of liquids, and at least one of several listed practices. One of those practices is "treatment using best demonstrated available technology."

Although we encourage development of treatment methods, we note that a process regarded as the "best demonstrated available technology" may in fact offer marginal or no reduction in the undesirable properties of a waste. If the technology to be used has indeed been demonstrated to provide improved environmental protection, that technology can be approved under at least one of the other practices listed in Paragraph (3). On the other hand, an operator should not be discouraged from improving his practice even though his method may not be the "best demonstrated" technology. The criterion "best demonstrated available technology" is therefore not necessary, and might even be detrimental to the intent of the rule. We suggest deleting the phrase.

Change #17 -- 19.15.17.16 E:

A modification might easily be equivalent to an exception. We therefore suggest that any modification that is equivalent to an exception be explicitly covered by the exception procedures.

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Respectfully submitted,

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