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

APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION FOR ADOPTION OF AMENDMENTS TO RULE 19.15.17, STATEWIDE.

CASE NO. 14292
Order No. R-12939-A

ORDER OF THE COMMISSION

THIS MATTER, having come before the New Mexico Oil Conservation Commission ("Commission") on April 2, 2009; April 3, 2009; and May 28, 2009 at Santa Fe, New Mexico, on the application of the New Mexico Oil Conservation Division ("Division") for adoption of amendments to 19.15.17 NMAC and the Commission, having carefully considered public comment and the evidence and other materials submitted to it, now, on this 18th day of June, 2009,

FINDS THAT:

1. This is a rulemaking proceeding initiated on application of the Oil Conservation Division ("Division") for the purpose of the adoption of amendments to 19.15.17 NMAC ("Pit Rule").

2. Notice was given of the application and the hearing of this matter, and the Commission has jurisdiction of the parties and the subject matter herein.

3. After the April 2, 2009 and April 3, 2009 hearing of this matter, on May 28, 2009 the Commission deliberated in open session, reviewed the proposed amendments, and voted to accept certain of them, along with some changes by the Commission. This Order indicates the Commission's analysis of certain key provisions and of the entire proposal. Additional reasons are included in the hearing transcript of the Commission deliberations.

4. NMSA 1978, Sections 70-2-11 and 70-2-12(B) grant the Oil Conservation Division authority to implement rules to carry out the purposes of the Oil and Gas Act, Chapter 70, NMSA 1978 Article 2 (the Act). NMSA 1978, Section 70-2-6(B) provides that the Commission shall have concurrent jurisdiction or authority with the Division to the extent necessary for the Commission to perform its duties. Generally, the Commission adopts rules, the Division implements those rules, and the Commission hears any final administrative adjudicatory proceedings.

5. Powers of the Division, and by extension the Commission, include those directed toward protecting the environment, for example, "to regulate the disposition of water produced or used in connection with the drilling for or producing of oil or gas ....

in a manner that will afford reasonable protection against contamination of fresh water supplies designated by the state engineer" (NMSA 1978, Section 70-2-12(B)(15)); to "regulate the disposition of nondomestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas to protect public health and the environment" (NMSA 1978, Section 70-2-12(B)(21)); and to "regulate the disposition of nondomestic wastes resulting from the oil field service industry, the transportation of crude oil or natural gas, the treatment of natural gas or the refinement of crude oil to protect public health and the environment, including administering the Water Quality Act as provided in Subsection E of Section 74-6-4 NMSA 1978" (NMSA 1978, Section 70-2-12(B)(21)).

6. Section 70-2-12 also gives the Division, and by extension the Commission, the powers necessary to carry out its duties to prevent waste, protect correlative rights, and protect public health and the environment, including "the authority to collect data; to make investigations and inspections; to examine properties, leases, papers, books and records; to examine, check, test and gauge oil and gas wells, tanks, plants, refineries and all means and modes of transportation and equipment; to hold hearings; to provide for the keeping or records and the making of reports and for the checking of the accuracy of the records and reports...." (NMSA 1978, Section 70-2-12(A)). In addition, Section 70-2-12 gives the Division, and by extension the Commission, the specific power to "require reports showing locations of all oil or gas wells and for the filing of logs and drilling records or reports." (NMSA 1978, Section 70-2-12(B)(3)).

Background of this Proceeding and the Division's Proposal

7. On May 9, 2008, the Commission adopted the Pit Rule.

8. On February 18, 2009, Governor Bill Richardson directed the Secretary of the Energy, Minerals, and Natural Resources Department to work with the oil and gas industry to modify the Pit Rule to allow oil and gas companies to better absorb the costs associated with the Pit Rule.

The Division's Application

9. The Division filed its application for rule amendment on February 27, 2009 ("Application"). The application proposed to amend the Pit Rule by:

a) allowing an operator of a below-grade tank existing on June 18, 2008 that has side walls entirely open for visual inspection, but which does not conform to the design and construction requirements of the Pit Rule as adopted on May 9, 2008, to continue operating that tank until a sale or transfer of the tank or facility, so long as the tank maintains demonstrated integrity;

b) requiring that any below-grade tank that does not conform to the design and construction requirements adopted on May 9, 2008 ("Non-conforming Tank")

be either closed or retrofitted to conform to those requirements prior to sale of transfer of the tank or facility;

c) extending the record retention requirement from five years to the life of the tank for inspection records of below-grade tanks;

d) requiring an operator of a Non-conforming Tank, if the tank's integrity fails, to comply with applicable tank closure requirements prior to replacing the tank;

e) requiring an operator who retrofits or replaces a Non-conforming below-grade tank to inspect the area underneath the tank, report any evidence of contamination to the Division, and, if the Division determines that the contamination poses an imminent danger to the environment, to comply with applicable tank-closure requirements prior to retrofitting or replacing the tank;

f) increasing the chloride waste standard for on-site trench burial closure of temporary pits or drying pads from 250 mg/l to the greater of 3000 mg/l or background.

10. The amendments to the Pit Rule as adopted by the Commission are attached to this Order as Attachment A. The Division's proposed amendments are in the record as Petitioner's Exhibit 2.

The Hearing Process

11. The Commission required any person recommending alternatives to the language of the proposed amendments to submit them to the Division by March 19, 2009. The Commission received recommended alternatives from the Independent Petroleum Association of New Mexico ("IPANM"), the New Mexico Citizens for Clean Air and Water ("CCAW"), and the Oil and Gas Accountability Project ("OGAP").

12. The Commission required any person intending to present technical testimony at the hearing to file pre-hearing statements by March 26, 2009. The Commission received pre-hearing statements from the Division, IPANM, CCAW, OGAP, ConocoPhillips Company ("Conoco"), and the New Mexico Industry Committee ("NMIC"). Attorneys for Division, IPANM, CCAW, OGAP, Conoco, and NMIC appeared and examined witnesses or otherwise participated in the hearing.

13. The Commission required written comments to be filed by March 26, 2009. Those submitting written comments included Lucy Ross Lockridge, IPANM, the League of United Latin American Citizens, and the City of Lovington.

14. The Commission held a public hearing to take testimony and other evidence on the Division's proposal on April 2, 2009 and April 3, 2009.

15. At the hearing, the Division presented the testimony of Theresa Duran-Saenz, Brad Jones, and Edward Hansen.

a) Theresa Duran-Saenz testified about notices of the hearing.

b) Brad Jones, an environmental engineer for the Division and one of the persons responsible for the proposed amendments, testified regarding replacing or retrofitting existing below-grade tanks, compliance timeframes, and chloride limits related to on-site trench burial.

c) Edward Hansen, a hydrologist for the Division, testified regarding the probable time and extent of chloride contamination to groundwater based upon the results of HELP and MULTIMED models.

16. At the hearing, CCAW presented the testimony of Donald A. Neeper, a guest scientist with Los Alamos National Laboratory, who responded to Mr. Hansen's testimony, and testified regarding data presented during the original hearing on the Pit Rule, chloride transport in the context of the proposed increase, and the economic need for modification of the Pit Rule.

17. At the hearing, Conoco presented the testimony of Gregg Wurtz, the senior environmental compliance staff member at ConocoPhillips, who testified regarding the below-grade tank and chloride concentration amendments, and the protection of fresh water, public health, and the environment under them.

18. At the hearing, NMIC called Bruce Buchanan, a reclamation design consultant, who responded to the testimony of Donald Neeper and testified regarding salt movement, soil science, and revegetation.

19. Mr. Boyd, Ms. Sara Vickers, and Gwen Lachelt made un-sworn public comments at the hearing.

20. The Commission deliberated on the application in open session during its meeting on May 28, 2009.

Findings Concerning the Pit Rule and the Proposed Amendments

21. The Commission takes administrative notice that it adopted the Pit Rule, which was a new rule, by Order No. R-12939, in Case No. 14015, on May 9, 2008. The Pit Rule became effective on June 16, 2008 (the "Effective Date").

19.15.17.11.I(5) and (6) NMAC (Below-grade Tanks)

22. The Pit Rule changed the regulatory definition of "below-grade tanks" to include categories of tanks not previously regulated, and adopted specific design and construction requirements for tanks, which are set forth in 19.15.17.11.I(1) - (4) NMAC.

23. Currently, Non-conforming Tanks in operation on the Effective Date may be continued in operation so long as they demonstrate integrity, provided that all sidewalls are visible for inspection and there is a geomembrane liner underneath the tank. 19.15.17.11.I(5) NMAC. All other Non-conforming Tanks must be retrofitted or replaced within five years after the Effective Date, unless they do not demonstrate integrity, in which case they must be promptly replaced by a tank that does comply with the Pit Rule's prescribed design and construction requirements.

24. The Division proposes that Non-conforming Tanks that are placed so that all sidewalls are visible for inspection be exempted from the requirement for replacement or retrofitting within five years, even if the tanks do not have geomembrane liners.

25. The Pit Rule requires monthly inspection of all below-grade tanks and requires prompt replacement of any below-grade tank that does not demonstrate integrity.

26. Maintenance and integrity of below grade tanks are the major factors in assuring protection of fresh water, public health and the environment. (Testimony of Jones, V. 1 at pp. 37, 104-05, 224; Testimony of Wurtz, Tr. V. 2 at p. 219). [1] If a Nonconforming Tank is placed such that its sidewalls can be visually inspected, monthly inspections would ordinarily be sufficient to detect leaks before a substantial release can occur. (Testimony of Jones, V. 1 at pp. 37-41, 205, 224-27). Allowing these tanks to remain in service so long as they demonstrate integrity will benefit operators by allowing them to defer replacement costs and make plans to address these issues in a systematic way (Testimony of Jones, Tr. V.1 at 41). Because such tanks can be visually inspected, the requirement for replacement within five years for such tanks is not essential for the protection of fresh water, human health and the environment. (Testimony of Jones, V. 1 at pp.32-38). While the leak detection liner is a valuable step in improving future environmental performance, the benefits of this protection do not justify the costs of requiring an immediate retrofit of below-grade tanks that otherwise can demonstrate maintenance of integrity. (Testimony of Jones, V. 1 at pp.32-40).

27. The Division's proposed 19.15.17.11.I(5) and (6) should be adopted, except that proposed sub section (6) should be changed to read "single walled" in lieu of "singled walled".

19.15.17.12.D(3) NMAC (Maintenance of Inspection Records)

28. The Division proposes to require that inspection records of below-grade tanks be maintained on each tank for the life of that tank, instead of the currently required five years.

29. Under current rule, when there is a failure of a below-grade tank, the operator of that tank must report the failure and repair the tank or otherwise mitigate the problem. 19.15.17.12.A(5) NMAC.

[1] Citations to the hearing transcript are signaled with a "Tr.," followed by volume and page numbers.

30. The requirement for maintaining records of inspection for the life of a tank and the retention of monthly inspection reports for the life of a tank imposes an unnecessary burden on oil and gas operators. (Testimony of Jones, V. 1 at pp. 223-27; Testimony of Wurtz, V. 2 at p. 220)

31. The Division's proposed amendment that inspection records for below-grade tanks be maintained for the life of the tank should not be adopted.

19.15.17.12.D(5) and (6) NMAC (Assessment and Clean-up for Replacement or Retrofitting of Non-conforming Tanks)

32. The Division proposes to require that an operator replacing a Non-conforming Tank that does not demonstrate integrity first close the Non-conforming Tank as provided in 19.15.17.13 NMAC. This would require the operator, among other things, to sample and test the soil underneath the tank as required by 19.15.17.13.E(4) NMAC, and if any release is detected, to perform corrective action if the Division determines that the release will endanger public health or the environment.

33. The Division further proposes that an operator retrofitting or replacing a Non-conforming Tank that has not demonstrated lack of integrity, and that the operator is not otherwise required to close, be required only to make a visual inspection of the soil beneath the tank and to take corrective action if the operator discovers contamination that the operator or the Division determines poses an imminent threat to fresh water, public health, safety, or the environment.

34. The Pit Rule requires an operator to replace a Non-conforming Tank that does not demonstrate integrity. 19.15.17.11.I(5) and (6) NMAC. It does not explicitly state, however, that an operator who retrofits or replaces a Non-conforming Tank must comply with the tank-closure provisions of 19.15.17.13 NMAC.

35. The fact that a tank has demonstrated lack of integrity implies a significant likelihood that contamination underneath the tank may exist (Testimony of Jones, Tr. V.1 at 45-46). For this reason, the operator replacing such a tank should be required to comply with the closure provisions of Subsection 13 prior to replacing the Non-conforming Tank.

36. On the other hand, where an operator elects to replace or retrofit a Non-conforming Tank prior to being required to do so, it aids in reducing the number of Non-conforming Tanks, which provides further protection for public health and the environment. (See Finding No. 40). Allowing a less costly and time consuming contamination assessment procedure will provide an incentive for operators to proactively replace Non-conforming Tanks (Testimony of Jones, Tr. V.1 at 50-51, 53).

37. Taking into consideration the lesser probability of significant contamination from tanks that have continued to demonstrate integrity, adoption of more

relaxed requirements for testing and corrective action where an operator voluntarily replaces Non-conforming Tanks that demonstrate integrity is appropriate.

38. Proposed Paragraphs 19.15.17.12.D(5) and (6) NMAC should be adopted.

19.15.17.13.A(5) NMAC (Closure of Non-conforming Tanks Prior to Transfer)

39. The Division proposes amendment of the closure requirements of 19.15.17.13.A NMAC to require that Non-conforming Tanks either be retrofitted to conform to the design and construction requirements of 19.15.17.11.I(1) through (4) NMAC, or be closed, prior to transfer to a different operator. There is no comparable requirement in the existing Pit Rule.

40. In adopting the Pit Rule in Case No. 14015, the Commission necessarily concluded that the design and construction requirements for below-grade tanks in 19.15.17.11.I(1) through (4) NMAC provided a more adequate level of protection for fresh water, public health and the environment. Non-conforming Tanks involve a higher risk of fluid releases that can contaminate soils or ground water.

41. A transfer of operation of a tank places primary responsibility for remediating contamination or abating water pollution on the transferee. (Testimony of Jones, V. 1 at pp. 54-59).

42. The Pit Rule does not require any financial assurance for below-grade tanks separate and apart from the financial assurance for the well or facility with which the tank is associated. Financial assurance for wells is required for the primary purpose of assuring that wells will be plugged. NMSA 1978 Section 70-2-14.

43. In the absence of a requirement for financial assurance, the Commission and the Division have no means of assuring that the new operator who assumes operation of a Non-conforming Tank will have financial means sufficient to meet its obligation to remediate or abate any contamination that has resulted or will result from a release from that Non-conforming Tank. Requiring a Non-conforming Tank to be retrofitted or closed at transfer mitigates the risk to the State of not having financial assurance that covers retrofitting or closing tanks. (Testimony of Jones, V. 1 at pp. 222-23).

44. By requiring that Non-conforming Tanks be either retrofitted or closed prior to transfer of operation, the proposed amendments will place responsibility for detection of contamination and for remediation or abatement on the operator who was responsible for the tank when the release occurred. (Testimony of Jones, Tr. V.1 at 55, 59).

45. Requiring that all tanks conform to the requirements of 19.15.17.11.I(1) through (4) NMAC at the time of transfer will reduce the likelihood of further contamination. (See Finding No. 40).

46. In the absence of a financial assurance requirement designed to assure proper tank operation and to ensure against environmental degradation caused by tanks, the requirement for retrofitting or closure of Non-conforming Tanks prior to transfer to another operator is necessary to adequately protect fresh water, public health, and the environment.

47. The language of the proposed amendment does not limit the ability of the transferor and transferee to allocate between themselves the responsibility for costs of retrofitting, closure, or remediation.

48. The proposed requirement for retrofit or closure of Non-conforming Tanks prior to a transfer entails the need to make conforming changes to 19.15.17.16.F NMAC and 19.15.17.17.B and D NMAC, which also have been proposed by the Division (Testimony of Jones, Tr. V.1 at 57-58, 60-62).

49. The references to "transfer of ownership" in the proposed amendments to 19.15.17.13, 19.15.17.16 and 19.15.17.17 will not be adopted. In lieu of that language, the Commission will substitute "change of operator pursuant to 19.15.9.9 NMAC," so that the obligation to retrofit or close attaches upon a change of operator. This helps ensure that Non-conforming Tanks, for which financial assurance is not required, will be properly closed. (Testimony of Jones, V. 1 at pp. 220-21).

50. The Division's proposed 19.15.17.13.A(5) NMAC, the corresponding re-numbering of subsections (5) through (8) as (6) through (9), and the Division's proposed 19.15.17.16.F NMAC and 19.15.17.17.B and D NMAC, should be adopted, except that the language "transfer of ownership" in proposed 19.15.17.13.A(5), 19.15.17.16.F, and 19.15.17.17.B and D will not be adopted and "change of operator pursuant to 19.15.9.9 NMAC" will be substituted therefore.

19.15.17.13.F.(3)(c) NMAC (Chloride Standard for Closure of Temporary Pits and Drying Pads by On-Site Trench Burial)

51. Subparagraph 13.F(3)(c) allows closure of temporary pits and of drying pads associated with closed-loop systems by on-site trench burial of the pit or drying pad waste only in specified circumstances. One of the requirements is that the chloride concentration in a composite sample extracted from the waste, as demonstrated by testing in accordance with the Synthetic Precipitation Leaching Procedure (SPLP) as prescribed by the United States Environmental Protection Agency (EPA), not exceed 250 milligrams per liter (mg/l).

52. Evidence of the chloride concentrations found in oil and gas drilling pits in southeastern New Mexico, presented in Case No. 14015, indicates that most temporary pits and drying pads in that region will not qualify for on-site trench burial under the chloride standard provided in existing 19.15.17.13.F(3)(c), and, accordingly, the waste from those pits will have to be removed to a disposal facility (Pit Rule OCD Ex. 16 at 4,

RA at 6075). This evidence concerning chloride concentrations of pit waste in southeastern New Mexico is consistent with the Commission's institutional knowledge concerning geology and drilling methods in the Permian Basin.[2]

53. Evidence presented by oil and gas operators in Case No. 14015 indicates that a requirement that pit or drying pad waste be hauled to a disposal facility rather than buried on site significantly increases the cost of oil and gas development and may significantly reduce oil and gas exploration and production. (Pit Rule IPANM Ex. 13 at 2, RA at 12456; Pit Rule IPANM Ex. 37 at 10-11, RA at 12508-09 (item labeled "trucking of drilled solids"); testimony of Larry Scott, Pit Tr. at 3279-83, RA at 3360-64; testimony of John Byrom, Pi Tr. at 3327-61, RA 3408—42, especially Tr. at 3332-3 and 3360, RA at 3413-14 and 3441).

54. The Commission did not conclude, in Case No. 14015, and does not conclude in this case, that any resulting decrease in production will constitute waste as defined in the New Mexico Oil and Gas Act (NMSA 1978 Section 70-2-3). Oil or gas not produced now due to increased disposal costs would not be wasted if it could be produced in the future in different economic circumstances. However, the Commission's rules should not discourage production or impose hardships on the oil and gas industry unless necessary to protect fresh water, public health, and the environment for the reasonably foreseeable future.

55. The evidence presented in Case No. 14015 regarding the probable effect of chlorides in trench-buried waste on underlying ground water focused on water at a depth of 50 feet beneath the trench bottom. *See, e.g.,* testimony of Mr. Hansen, Pit Tr. at 760, RA at 843; Pit Rule OCD Ex. 21 at 34, RA at 9002.

56. In this case, the Division has recommended increasing the chloride standard for on-site trench burial from 250 mg/l (SPLP) provided in the Pit Rule to the greater of 3,000 mg/l (SPLP) or background (Testimony of Jones, Tr. V.1 at 64-65).

57. Existing siting requirements, 19.15.17.10.C(4) NMAC, which the Division does not seek to change, limits on-site trench burial to locations where depth to ground water is at least 100 feet from the bottom of the buried waste.

58. Since the Pit Rule provides for testing using the SPLP procedure that involves a 20:1 dilution, and allows stabilization of the waste by mixing it with clean soil at a ratio of 3:1, the 3,000 mg/l SPLP standard that the Division recommends would allow on-site trench burial of up to 60,000 milligrams per kilogram (mg/Kg) chloride concentration in stabilized pit waste (i.e., up to 240,000 mg/kg chloride concentration in raw pit waste prior to stabilization) (Testimony of Hansen at Tr. 17).

59. Based on pit sampling evidence presented in Case No. 14015, if this increased standard were adopted, chloride levels would not be an obstacle to on-site

[2] References to the transcript of the hearing in Cases No. 14015 are in the form "Pit Tr. at ppp; RA at xxx," indicating Page ppp of the transcript of testimony in that case and Page xxx of the Record on Appeal.

trench burial in southeastern New Mexico provided that the Pit Rule's siting requirements for on-site trench burial are met (Testimony of Hansen, Tr. V.2 at 18).

60. Mr. Hansen, testified, based on computer modeling using the HELP and MULTIMED models, that contamination from waste in a trench that demonstrated a chloride concentration following stabilization, using the prescribed SPLP method, of 3,000 mg/l would not reach ground water in sufficient quantities to cause an exceedance of applicable water quality standards for 2,000 years (Testimony of Hansen, Tr. V.2 at 19; OCD Ex. 8 at 15-16).

61. CCAW witness, Dr. Neeper testified that due to liner deterioration contamination might reach ground water in less than the time predicted by the model (Testimony of Neeper, Tr. V.2 at 143). However, Mr. Hansen testified that a well-installed liner would continue to afford significant protection against downward movement of contaminants from a trench for a significantly longer time than the liner's estimated useful life (Testimony of Hansen Tr. V.2 at 22-23). Even if the liner failed totally at the end of its useful life, Mr. Hansen estimated the time before contamination reached ground water in quantities sufficient to exceed standards at 590 years (450 years estimated liner half-life plus 140 years for migration of contaminants from an unlined pit to ground water at a depth of 100 feet) (Testimony of Hansen Tr. V.2 at 22-23).

62. The Commission's duty is to protect ground water quality for the reasonably foreseeable future. The Commission concludes that the Division's proposed 3,000 mg/l SPLP chloride standard will protect ground water for the reasonably foreseeable future.

63. Dr. Neeper also articulated concerns that chloride levels in buried trenches that the proposed amendment would threaten surface vegetation and soil productivity. Dr. Neeper based his concerns, however, on modeling that did not take into account movement of chlorides in the upper 20 inches of surface soils (Testimony of Neeper, Tr. V.2 at 153), and also did not take into account the geomembrane liner that the Pit Rule requires over the top of a trench burial (Testimony of Neeper, Tr. V.2 at 155, 157).

64. Dr. Neeper also testified concerning field observations of certain closed pits where he had observed chloride contamination at the surface. However, he conceded that at three of the four pits there was either no evidence of a liner, or the liner had been compromised, and he did not know how these pits were closed. The one pit that had a closed liner showed no evidence of chlorides at the surface. (Testimony of Neeper, Tr. V.2 at 158-60).

65. Industry Committee witness, Dr. Buchanan, testified, based on extensive study of New Mexico soils and field experiments involving upward movement of contaminants from buried waste emplacements, that:

a) salt is not reasonably likely to rise more than a few centimeters, and certainly not to the surface, under conditions predominating in New Mexico, where

waste is buried in a lined trench with at least four feet of clean soil cover above the waste, as required by the Pit Rule, even disregarding the geomembrane cover (Testimony of Buchanan, Tr. V.2 at 199, 200, 202); and

b) the four feet of cover that the Pit Rule requires above a trench burial will provide adequate rooting depth for most native cover species (Testimony of Buchanan, Tr. V.2 at 197).

66. Dr. Neeper testified that chlorides move preferentially downward in sandy or loose soils and upward in clay-like soils (Testimony of Neeper, Tr. V.2 at 120-122, CCAW Ex. 1 at page 8). Dr. Buchanan testified that in New Mexico, as a general rule, one would find predominantly clay-like soils in playas and river drainages and predominantly sandy soils in other places (Testimony of Buchanan, Tr. V.2 at 211). The Pit Rule does not allow on-site trench burial in playas and river drainages regardless of chloride content. 19.15.17.10.C(5) and (12).

67. The Commission concludes that the proposed amendment will not jeopardize soil productivity or prospects for surface re-vegetation.

68. In regard to the Division's recommendation that the chloride standard for on-site burial should be "background" where background exceeds the 3,000 mg/l standard, the Division's witness, Mr. Jones, testified that:

(a) Although the proposed rule does not fix the location where background chloride concentration is to be tested, it would be prudent to take the sample at the time of construction and in the area of excavation. (Testimony of Jones, V. 1 at p. 99, 157-58).

(b) The Division intended to allow the higher "background" chloride standard in locations where elevated chloride levels are naturally occurring, or where such levels are the result of human activity unrelated to oil and gas development, but not at locations where chloride levels are the result of previous oil and gas related activity (Testimony of Jones, Tr. V.1 at 185).

69. The Division's proposed changes to 19.15.17.13.F(3)(c) NMAC should be adopted.

70. The Commission acknowledges that, while it concludes that the increase in the acceptable chloride concentration level does not endanger ground water, surface vegetation, or soil productivity, it is a large increase. Commissioner Olson pointed out that the existing surface waste management rules in 19.15.36.16.A(1) NMAC require that the operator provide proof of a written agreement with the surface owner in order to conduct small landfarm operations for remediation of contaminated soils, and expressed concern that there is no such approval requirement for an operator to construct an onsite trench burial system for disposal of drilling pit wastes which contain higher levels of water contaminants than allowed in small landfarms. Commissioner Olson stated that he

believed that landfilling of drilling wastes on lands not owned by the operator was not necessary to produce minerals from the land, and that surface owner approval should be required to conduct this activity in order to avoid future disturbance of these wastes. The majority of the Commission disagreed with this position, however.

71. It is important to make the surface owner aware of the trench burial to safeguard the trench from disruption. (Testimony of Jones, V. 1 at pp. 228-29).

72. The Commission adopts the changes to 19.15.17.13.F(3)(c) NMAC that were requested by the Division. For the reasons stated above, the Commission also adds the notice to surface owner requirement in 19.15.17.13.F(3)(a) NMAC, as shown in Attachment A of this Order, which was not requested by the Division.

73. It is prudent to allow comparison to background with respect to inorganic water contaminants listed in 20.6.2.3103.A NMAC, as well as with respect to chloride. (Testimony of Jones, V. 195-98).

74. Chlorides are more mobile than other constitutents, which may bind with other soil contents and migrate slower than chloride. Chloride is a very good indicator of what may be following. (Testimony of Jones, V. 1 at p. 147.

75. Modeling, using a 100 foot distance between the bottom of lined, trenched waste and groundwater, which distance is required by Commission rules, indicates that chloride at a concentration of 3,000 mg/L will not reach groundwater for 2,000 years. (Testimony of Hansen, V. 2 at pp. 14 – 21).

76. The Commission adopts the changes to 19.15.17.13.F(3)(c) that were requested by the Division. For the reasons stated above, the Commission also adds "background" as an optional standard for acceptable concentrations of inorganic water contaminants in 19.15.17.13.F.(3)(a) NMAC, as shown in Attachment A of this Order, which was not requested by the Division.

19.15.17.17 NMAC (Transitional Provisions)

77. The Division also has proposed the following changes to transitional provisions of the Pit Rule:

(a) extend the time allowed to apply for a permit modification for a permitted, lined permanent pit existing on the Effective Date for which the Pit Rule requires a permit modification, from 180 days after the Effective Date to two years after the Effective Date;

(b) extend the time allowed to apply for a permit for a registered, lined permanent pit existing on the Effective Date from 180 days after the Effective Date to two years after the Effective Date;

(c) extend the time allowed to apply for a permit for an unpermitted below-grade tank existing on the Effective Date, or a below-grade tank existing on the Effective Date for which the Pit Rule requires a permit modification, from 90 days after the Effective Date to two years after the Effective Date; and

(d) require registration of all permitted, lined permanent pits that existed on the Effective Date for which permit modifications will be required, and below-grade tanks that existed on the Effective Date for which permits or permit modifications will be required, to be registered not later than one year after the Effective Date.

78. 19.15.17.17.C NMAC requires an operator of an existing lined, permanent pit for which the Pit Rule requires a permit or permit modification to apply for a permit or permit modification (as applicable) within 180 days after the Effective Date in order to be allowed to continue to operate that pit. 19.15.17.17.D NMAC requires an operator of an existing below-grade tank for which the Pit Rule requires a permit or permit modification to apply for a permit or permit modification (as applicable) within 90 days after the Effective Date in order to be allowed to continue to operate that tank. These deadlines have already passed, and apparently many operators have been unable to comply (Testimony of Jones, Tr. V.1 at 70-71, 74).

79. The Division has recommended that the applicable deadlines for filing applications for permits or permit modifications (where authorized) for both permitted, lined permanent pits and below-grade tanks be extended to two years after the Effective Date, with the proviso that operators be required to register facilities existing on the Effective Date that will require permits or permit modifications within one year after the Effective Date by filing with the Division a list of such facilities.

80. The object of the Pit Rule's transitional provisions is to allow operators of permitted or registered, lined permanent pits or below-grade tanks for which permits were not previously required, or for which the Pit Rule requires permit modifications, adequate time to comply with these requirements so that all such facilities can be brought into compliance with the rule. Apparently the existing transitional provisions have not proven adequate for this purpose. The proposed time extensions for filing of applications for permits and permit modifications for facilities existing before the Effective Date should be extended to give industry adequate time to prepare proper applications, and to give the operators time to work with the Division to develop templates that will assist in preparing their applications and assist the Division in processing those applications (Testimony of Jones, Tr. V.1 at 70-75).

81. The Division needs to know the magnitude of the permitting/modification task ahead, so that it can be prepared to process these permit applications and modifications efficiently (Testimony of Jones, Tr V.1 at 69 and 74).

82. While the Division did not request such a change, for clarity the Commission adds that the registration list referred to in the Division's proposed

amendments to 19.15.17.17.(C) and (D) be submitted "to the Division ... for registration purposes...."

83. The last sentence of the Division's proposed 19.15.17.17.D NMAC requires the operator to bring below-grade tanks existing on the Effective Date into compliance with the construction specifications of the Pit Rule upon discovery that the below-grade tank does not demonstrate integrity or prior to any sale or transfer of ownership. This is inconsistent with 19.15.17.11.I(6) NMAC, which requires compliance within five years after the Effective Date.

84. In the last sentence of proposed Subsection 19.15.17.17.D NMAC the language "upon discovery that the below grade tank does not demonstrate integrity" should be deleted and the following substituted therefore: "within the time provided by applicable provisions of Paragraph (5) or (6) of Subsection I of 19.15.17.11 NMAC or prior to any sale or change of operator pursuant to 19.15.9.9 NMAC."

85. The Division's proposed changes to 19.15.17.17.C and D NMAC (as modified by these Findings) should be adopted, except that, because the amendments adopted by this order will not be effective before June 16, 2009, provisions requiring registration "[w]ithin one year after June 16, 2008", should be changed to provide "[no later than October 31, 2009.]".

86. The term "evaluation" is more appropriate than "determination" in 19.15.17.17.C and D NMAC because "determination" connotes a final decision to be made by the Division. (Testimony of Jones, V. 1 at p. 220).

Final Conclusions

87. The Commission concludes that adoption of the amendments proposed by the Division, as modified, will assist the Division in carrying out its statutory mandates of protecting water, public health and the environment, while preventing waste and protecting correlative rights, and aid oil and gas companies in absorbing the costs of the Pit Rule.

88. The Commission concludes that the requirements of the amendments proposed by the Division, as modified, are reasonable and that alternative regulatory methods would not accomplish the Division's objectives.

89. The Commission concludes that amendments to the Pit Rule be adopted in the form attached hereto as **Attachment A**.

IT IS THEREFORE ORDERED THAT:

1. The Commission hereby adopts the amendments to NMAC of the Division rules shown in Attachment A to this Order, effective as of the date of publication thereof in the New Mexico Register.

2. Division staff is instructed to secure prompt publication of the referenced rule changes in the New Mexico Register.

3. The Commission retains jurisdiction of this matter for entry of such further orders as may be necessary.

DONE at Santa Fe, New Mexico on the 18th of June 2009.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

MARK E. FESMIRE, P.E., CHAIR

JAMI BAILEY, CPG, MEMBER

WILLIAM OLSON, MEMBER

S E A L

ATTACHMENT A

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

19.15.17.11 DESIGN AND CONSTRUCTION SPECIFICATIONS:

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

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

C. Signs. The operator shall post an upright sign not less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the pit, closed-loop system or below-grade tank, unless the pit, closed-loop system or below-grade tank is located on a site where there is an existing well, signed in compliance with 19.15.16.8 NMAC, that is operated by the same operator. The operator shall post the sign in a manner and location such that a person can easily read the legend. The sign shall provide the following information: the operator's name; the location of the site by quarter-quarter or unit letter, section, township and range; and emergency telephone numbers.

D. Fencing.

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

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

(3) The operator shall fence any other pit or below-grade tank to exclude livestock with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four 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 or screening is not feasible, the operator shall on a monthly basis inspect for, and within 30 days of discovery, 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 liquids to prevent unauthorized 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 a safe manner to prevent contamination of fresh water and protect public health and the environment.

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

(4) The operator shall minimize liner seams and orient them up and down, not across a slope. The operator shall use factory welded seams where possible. Prior to field seaming, the operator shall overlap liners four to six inches 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 operator shall weld field liner seams.

(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 or workover rig is not required to have run-on protection if the operator is using the temporary pit to collect liquids escaping from the drilling or workover rig and run-on will not result in a breach of the temporary pit.

(10) The volume 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 liquids to remain on the unlined portion 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 welded 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. 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. Prior to field seaming, the operator shall overlap liners four to six inches 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 upper and lower geomembrane liners that consists of two feet of compacted soil with a saturated hydraulic conductivity of 1 x 10^{-5} cm/sec or greater to facilitate drainage. The leak detection system shall consist of a properly designed drainage and collection and removal system placed above the lower geomembrane liner in depressions and sloped to facilitate the earliest possible leak detection. Piping used shall be designed to withstand chemical attack from oil field waste or leachate; structural loading from stresses and disturbances from overlying oil field waste, cover materials, equipment operation or expansion or contraction; and to facilitate clean-out maintenance. The material the operator places between the pipes and laterals shall be sufficiently permeable to allow the transport of fluids to the drainage pipe. The slope of the interior sub-grade and of drainage lines and laterals shall be at least a two percent grade, *i.e.*, two feet vertical drop per 100 horizontal feet. The piping collection system shall be comprised of solid and perforated pipe having a minimum diameter of four inches and a minimum wall thickness of schedule 80. The operator shall seal a solid sidewall riser pipe to convey collected fluids to a collection, observation and disposal system located outside the permanent pit's perimeter. The operator may install alternative methods that the environmental bureau in the division's Santa Fe office approves.

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

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

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

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

H. Closed-loop systems.

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

(2) An operator of a closed-loop system that uses temporary pits for solids management 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 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 or fluids.

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

(1) 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.

(2) 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.

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

(4) An operator shall construct a below-grade tank in accordance with one of the following designs.

(a) An operator may construct and use a below-grade tank that does not have double

walls provided that the below-grade tank's side walls are open for visual inspection for leaks, the below-grade tank's bottom is elevated a minimum of six inches above the underlying ground surface and the below-grade tank is underlain with a geomembrane liner, which may be covered with gravel, to divert leaked liquid to a location that can be visually inspected. The operator shall equip below-grade tanks designed in this manner with a properly operating automatic high-level shut-off control device and manual controls to prevent overflows. The geomembrane liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material that the appropriate division district office approves. The geomembrane liner shall have a hydraulic conductivity no greater than 1×10^{-9} cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A.

(b) All other below-grade tanks, in which the side walls are not open for visible inspection for leaks shall be double walled with leak detection capability.

(c) An operator may construct a below-grade tank according to an alternative system that the appropriate district office approves based upon the operator's demonstration that the alternative provides equivalent or better protection.

(5) The operator of a below-grade tank constructed and installed prior to June 16, 2008 that ~~has the side walls open for visual inspection and is placed upon a geomembrane liner but~~ does not meet all the requirements in Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC and is not included in Paragraph (6) of Subsection I of 19.15.17.11 NMAC is not required to equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC so long as it demonstrates integrity. If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC. The operator shall comply with the operational requirements of 19.15.17.12 NMAC.

(6) The operator of a below-grade tank constructed and installed prior to June 16, 2008 that ~~does not comply with Paragraph (1) through (4) of Subsection I of 19.15.17.11 NMAC or that does not comply with Paragraph (5) of Subsection I of 19.15.17.11 NMAC~~ is single walled and where any portion of the tank sidewall is below the ground surface and not visible shall equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, or close it, within five years after June 16, 2008. If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC. The operator shall comply with the operational requirements of 19.15.17.12 NMAC.

J. On-site trenches for closure. The operator shall design and construct an on-site 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 (d) of Paragraph (3) 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 Subsection H of 19.15.17.13 NMAC.

(2) An on-site 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 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 welded seams where possible. Prior to field seaming, the operator shall overlap liners four to six inches and orient liner 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 operator shall weld field liner seams.

(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 waste 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 - Rn, 19.15.2.50 NMAC & A, 6/16/08; A, 12/1/08]

19.15.17.12 OPERATIONAL REQUIREMENTS:

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

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

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

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

(4) If any pit liner's integrity 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 pit, below-grade tank, closed-loop system or sump develops a leak, or if any penetration of the pit liner, below-grade tank, closed-loop system or sump occurs below the liquid's surface, then the operator shall remove all liquid above the damage or leak line within 48 hours, notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the pit liner, below-grade tank, closed-loop system or sump.

(6) The injection or withdrawal of liquids from a 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.

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

(8) 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, which the appropriate division district office approves, to contain hydrocarbon-based drilling fluids. 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 pit within 30 days from the date that the operator releases the drilling or workover rig. The operator shall note the date of the drilling or workover rig's release on form C-105 or C-103 upon well or workover completion. The appropriate division district office may grant an extension of up to three months.

(5) The operator shall remove any liquids from the temporary pit used for cavitation within 48 hours after completing cavitation. The operator may request and receive additional time to remove the liquids from the temporary pit used for cavitation if the operator demonstrates to the appropriate division district office's satisfaction that it is not feasible to access the location with 48 hours.

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

(1) The operator shall maintain at least three feet of freeboard for a permanent pit; the operator shall permanently mark such level on the permanent pit.

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

D. Below-grade tanks. An operator shall maintain and operate a below-grade tank in accordance with the following additional requirements.

(1) The operator shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below-grade tank.

(2) The operator shall remove any visible or measurable layer of oil from the fluid surface of a below-grade tank.

(3) The operator shall inspect the below-grade tank at least monthly and maintain a written record of each inspection for five years.

(4) The operator shall maintain adequate freeboard to prevent overtopping of the below-grade tank.

(5) The operator of a below-grade tank constructed and installed prior to June 16, 2008 that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC who discovers that the below-grade tank does not demonstrate integrity or that the below-grade tank develops any of the conditions identified in Paragraph (5) of Subsection A of 19.15.17.12 NMAC shall close the existing below-grade tank pursuant to the closure requirements of 19.15.17.13 NMAC and install a below-grade tank that complies with the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.

(6) The operator of a below-grade tank constructed and installed prior to June 16, 2008 that does not comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC who equips or retrofits the existing tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC shall visually inspect the area beneath the below-grade tank during the retrofit and document any areas that are wet, discolored or showing other evidence of a release on form C-141. The operator shall demonstrate to the division whether the evidence of contamination indicates that an imminent threat to fresh water, public health, safety or the environment exists. If the division determines that the contamination does not pose an imminent threat to fresh water, public health, safety or the environment, the operator shall complete the retrofit or the replacement of the below-grade tank. If the operator or division determines that the contamination poses an imminent threat to fresh water, public health, safety or the environment, then the operator shall close the existing below-grade tank pursuant to the closure requirements of 19.15.17.13 NMAC prior to initiating the retrofit or replacement.

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

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

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

[19.15.17.12 NMAC - Rn, 19.15.2.50 NMAC & A, 6/16/08]

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 operator shall cease discharging into an existing unlined permanent pit that is permitted by or registered with the division within two years after June 16, 2008. An operator shall close

an existing unlined permanent pit that is permitted by or registered with the division within three years after June 16, 2008.

(2) An operator shall cease discharging into an existing, lined or unlined, permanent pit that is not permitted by or registered with the division on or by June 16, 2008. An operator shall close an existing, lined or unlined, permanent pit that is not permitted by or registered with the division within six months after June 16, 2008.

(3) An operator shall close an existing unlined temporary pit within three months after June 16, 2008.

(4) An operator shall close an existing below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.

(5) An operator shall close an existing below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, prior to any sale or change of operator pursuant to 19.15.9.9 NMAC.

(~~5~~6) An operator shall close any other permitted permanent pit 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~~7) An operator shall close any other permitted temporary pit within six months from the date that the operator releases the drilling or workover rig. The appropriate division district office may grant an extension not to exceed three months.

(~~7~~8) An operator shall close a drying pad used for a closed-loop system permitted under 19.15.17 NMAC or in operation on June 16, 2008, within six months from the date that the operator releases the drilling or workover rig. The operator shall note the date of the drilling or workover rig's release on form C-105 or C-103, filed with the division, upon the well's or workover's completion. The appropriate division district office may grant an extension not to exceed six months.

(~~8~~9) An operator shall close a permitted below-grade tank 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 closure 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.

(i) For temporary pits where ground water is between 50 and 100 feet below the bottom of the temporary pit or for cavitation pits allowed pursuant to Subparagraph (a) of Paragraph (1) of Subsection A of 19.15.17.10 NMAC, the operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for benzene, total BTEX, TPH, the GRO and DRO combined fraction and chlorides to demonstrate that benzene, as determined by EPA SW-846 method 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; TPH, as determined by EPA SW-846 method 418.1 or other EPA method that the division approves, does not exceed 2500 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 500 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.

(ii) For temporary pits where ground water is more than 100 feet below the bottom of the temporary pit, the operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for benzene, total BTEX, TPH, the GRO and DRO combined fraction and chlorides to

demonstrate that benzene, as determined by EPA SW-846 method 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B or other method that the division approves, does not exceed 50 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; the TPH, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 2500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 1000 mg/kg or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(c) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.29 NMAC and 19.15.30 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; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

(2) On-site burial. The operator shall demonstrate and comply with the siting requirements in Subsection C of 19.15.17.10 NMAC and 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 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 area 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 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(4) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.29 NMAC and 19.15.30 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; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I 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 that uses a drying pad 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 in accordance with Subsections G, H and I of 19.15.17.13 NMAC.

(2) On-site burial. The operator shall demonstrate and comply with the siting requirements of Subsection C of 19.15.17.10 NMAC and 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 burial.

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

E. Closure method for below-grade tanks.

(1) The operator shall remove 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 area 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 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. The operator shall notify the division of its results on form C-141. The division may require additional delineation upon review of the results.

(5) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.29 NMAC and 19.15.30 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; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I 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 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) Any proposed on-site closure method shall comply with the siting criteria specified in Subsection C of 19.15.17.10 NMAC.

(b) The operator shall provide the surface owner notice of the operator's proposal of an on-site closure method. The operator shall attach the proof of notice to the permit application.

(c) The operator shall comply with the closure requirements and standards of Paragraphs (2) and (3), as applicable, 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 for a temporary pit involves on-site burial 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, or involves 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.

(d) The operator shall place a steel marker at the center of an on-site burial. The steel marker shall be not less than four inches in diameter and shall be cemented in a three-foot deep hole at a minimum. The steel marker shall extend at least four feet above mean ground level and at least three feet below ground level. The operator name, lease name and well number and location, including unit letter, section, township and range, and that the marker designates an on-site burial location shall be welded, stamped or otherwise permanently engraved into the metal of the steel marker. A person shall not build permanent structures over an on-site burial without the appropriate division district office's written approval. A person shall not remove an on-site burial marker without the division's written permission.

(e) The operator shall report the exact location of the on-site burial on form C-105 filed with the division.

(f) The operator shall file a deed notice identifying the exact location of the on-site burial with the county clerk in the county where the on-site burial occurs.

(2) In-place burial.

(a) Where the operator meets the siting criteria specified in Paragraphs (2) or (3) of Subsection C of 19.15.17.10 NMAC and the applicable waste criteria specified in Subparagraphs (c) or (d) of Paragraph (2) of Subsection F of 19.15.17.13 NMAC, an operator may use in-place burial (burial in the existing temporary pit) for closure of a temporary pit or bury the contents of a drying pad associated with a closed-loop system in a temporary pit that the operator constructs in accordance with Paragraphs (1) through (6) and (10) of Subsection F of 19.15.17.11 NMAC for closure of a drying pad associated with a closed loop system.

(b) Prior to closing an existing temporary pit or to placing the contents from a drying pad associated with a closed-loop system into a temporary pit that the operator constructs for disposal, the operator shall stabilize or solidify the contents to a bearing capacity sufficient to support the temporary pit's final cover. The operator shall not mix the contents with soil or other material at a mixing ratio of greater than 3:1, soil or other material to contents.

(c) Where ground water will be between 50 and 100 feet below the bottom of the buried waste, 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 the contents of a temporary pit after treatment or stabilization, if treatment or stabilization is required, to demonstrate that benzene, as determined by EPA SW-846 method 8021 B or 8260B, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021 B or 8260B, does not exceed 50 mg/kg; TPH, as determined by EPA SW-846 method 418.1 or other EPA method approved that the division approves, does not exceed 2500 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 500 mg/kg or the background concentration, whichever is greater. The operator may collect the composite sample prior to treatment or stabilization to demonstrate that the contents do not exceed these concentrations. However, if the contents collected prior to treatment or stabilization exceed the specified concentrations the operator shall collect a second five point, composite sample of the contents after treatment or stabilization to demonstrate that the contents do not exceed these concentrations.

(d) Where the ground water will be more than 100 feet below the bottom of the buried waste, 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 the contents of a temporary pit after treatment or stabilization, if treatment or stabilization is required, to demonstrate that benzene, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 50 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; TPH, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 2500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 1000 mg/kg or the background concentration, whichever is greater. The operator may collect the composite sample prior to treatment or stabilization to demonstrate that the contents do not exceed these concentrations. However, if the contents collected prior to treatment or stabilization exceed the specified concentrations the operator shall collect a second five point, composite sample of the contents after treatment or stabilization to demonstrate that the contents do not exceed these concentrations.

(e) Upon closure of a temporary pit, or closure of a temporary pit that the operator constructs for burial of the contents of a drying pad associated with a closed-loop system, the operator shall cover the geomembrane lined, filled, temporary pit with compacted, non-waste containing, earthen

material; construct a division-prescribed soil cover; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

(f) For burial of the contents from a drying pad associated with a closed-loop system, the operator shall construct a temporary pit, in accordance with Paragraphs (1) through (6) and (10) of Subsection F of 19.15.17.11 NMAC, within 100 feet of the drying pad associated with a closed-loop system, unless the appropriate division district office approves an alternative distance and location. The operator shall use a separate temporary pit for closure of each drying pad associated with a closed-loop system.

(3) On-site trench burial.

(a) Where the operator meets the siting criteria in Paragraph (4) of Subsection C of 19.15.17.10 NMAC, an operator may use on-site trench burial for closure of a drying pad associated with a closed loop system or for closure of a temporary pit when the waste meets the criteria in Subparagraph (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC, provided that the operator certifies to the division that it has given written notice to the surface owner that it intends to do so. The operator shall use a separate on-site trench for closure of each drying pad associated with a closed-loop system or each temporary pit.

(b) Prior to placing the contents from a drying pad associated with a closed-loop system or from a temporary pit into the trench, the operator shall stabilize or solidify the contents to a bearing capacity sufficient to support the final cover of the trench burial. The operator shall not mix the contents with soil or other material at a mixing ratio of greater than 3:1, soil or other material to contents.

(c) 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 of the temporary pit 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 (i) the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed ~~250~~ 3000 mg/l or the background concentration, whichever is greater, ~~and that~~ (ii) the concentrations of the inorganic water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC or the background concentration, whichever is greater, and (iii) the concentrations of the organic water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC, unless otherwise specified above. The operator may collect the composite sample prior to treatment or stabilization to demonstrate that the contents do not exceed these concentrations. However, if the contents collected prior to treatment or stabilization exceed the specified concentrations the operator shall collect a second five point, composite sample of the contents after treatment or stabilization to demonstrate that the contents do not exceed these concentrations.

(d) If the contents from a drying pad associated with a closed-loop system or from a temporary pit do not exceed the criteria in Subparagraph (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC, 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.

(e) 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 (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC.

(f) The operator shall test the soils beneath the temporary pit after excavation to determine whether a release has occurred.

(i) Where ground water is between 50 and 100 feet below the bottom of the temporary pit, the operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH, benzene, GRO and DRO combined fraction and chlorides to demonstrate that benzene, as

determined by EPA SW-846 method 8021B or 8260B, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 50 mg/kg; TPH, as determined by EPA SW-846 method 418.1 or other EPA method approved that the division approves, does not exceed 2500 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 500 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. The operator shall notify the division of its results on form C-141.

(ii) Where ground water is more than 100 feet below the bottom of the temporary pit, the operator shall collect at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH, benzene, GRO and DRO combined fraction and chlorides to demonstrate that benzene, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 50 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; TPH, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 2500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 1000 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.

(g) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Subparagraph (c) of Paragraph (3) 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; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

(h) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate. The operator may propose to transfer the excavated, contaminated soil into the lined trench.

(i) 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.

(j) The operator shall cover the geomembrane lined and covered, filled, trench with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

G. Reclamation of pit locations, on-site burial locations and drying pad locations.

(1) Once the operator has closed a pit or trench or is no longer using a drying pad, below-grade tank or an area associated with a closed-loop system, pit, trench or below-grade tank, the operator shall reclaim the pit location, drying pad location, below-grade tank location or trench location and all areas associated with the closed-loop system, pit, trench or below-grade tank including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. 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 as provided in Subsection H of 19.15.17.13 NMAC, recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

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

H. Soil cover designs.

(1) The soil cover for closures where the operator has removed the pit contents 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 burial-in-place or trench burial shall consist of a minimum of four feet of compacted, non-waste containing, earthen material. The soil cover shall include either the background

thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

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

I. Re-vegetation.

(1) The first growing season after the operator closes a pit or trench or is no longer using a drying pad, below-grade tank or an area associated with a closed-loop system, pit or below-grade tank including access roads, the operator shall seed or plant the disturbed areas.

(2) The operator shall accomplish seeding by drilling on the contour whenever practical or by other division-approved methods. The operator shall obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.

(3) The operator shall repeat seeding or planting until it successfully achieves the required vegetative cover.

(4) When conditions are not favorable for the establishment of vegetation, such as periods of drought, the division may allow the operator to delay seeding or planting until soil moisture conditions become favorable or may require the operator to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices.

(5) The operator shall notify the division when it has seeded or planted and when it successfully achieves re-vegetation.

J. 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.

K. Closure report. Within 60 days of closure completion, the operator shall submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan; and details on back-filling, capping and covering, where applicable. In the closure report, the operator shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in the approved closure plan. If the operator used a temporary pit, the operator shall provide a plat of the pit location on form C-105 within 60 days of closing the temporary pit.
[19.15.17.13 NMAC - Rn, 19.15.2.50 NMAC & A, 6/16/08; A, 12/1/08]

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

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

B. Granting of permit. The division shall issue a permit upon finding that an operator has filed an acceptable application and that the proposed construction, operation and closure of a pit, closed-loop system, below-grade tank or 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 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. 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. The division may revoke, suspend or impose additional operating conditions or limitations on a permit at any time, after notice and opportunity for a hearing, if the division determines that the operator or the permitted facility is in material breach of any applicable statutes or rules, or that such action is necessary for the protection of fresh water, public health or the environment. The division shall notify the operator by certified mail, return receipt requested, of any intended revocation, suspension or imposition of addition conditions, and the operator shall have 10 days after receipt of notification to request a hearing. The division may suspend a permit or impose additional conditions or limitations without hearing in an emergency to forestall an imminent threat to fresh water, public health, safety or the environment, subject to the provisions of NMSA 1978, Section 70-2-23, as amended.

F. Transfer of a permit. The operator shall not transfer a permit without the division's prior written approval. Except for existing below-grade tanks that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, ~~T~~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. The operator of a below-grade tank constructed and installed prior to June 16, 2008 shall close the existing below-grade tank pursuant to the closure requirements of 19.15.17.13 NMAC or complete the retrofit of the existing below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC prior to any sale or change of operator pursuant to 19.15.9.9 NMAC. 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. Written statements include e-mail.

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

[19.15.17.16 NMAC - Rn, 19.15.2.50 NMAC & A, 6/16/08]

19.15.17.17 TRANSITIONAL PROVISIONS:

A. After June 16, 2008, the division shall not accept applications for permits for unlined temporary pits.

B. An operator of an existing operation that is required to close pursuant to Paragraphs (2) or (3) of Subsection A of 19.15.17.13 NMAC shall submit a closure plan pursuant to Subsection C of 19.15.17.9 NMAC to the division not later than 30 days after June 16, 2008. An operator of an existing operation that is required to close pursuant to Paragraphs (1) 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 six months after June 16, 2008. An operator of an existing operation that is required to close pursuant to Paragraph (5) 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 prior to the time of requesting a permit transfer. The division must approve the closure plan and the operator must complete closure activities pursuant to the closure requirements of 19.15.17.13 NMAC prior to any sale or change of operator pursuant to 19.15.9.9 NMAC, unless otherwise approved by the division.

C. By no later than October 31, 2009, an operator of an existing lined permitted permanent pit shall submit to the division a list of the lined permitted permanent pit or pits of which it is the operator, for registration purposes. The registration list shall include the operator's name, the name of the well or

facility with which the lined permitted permanent pit is associated, the API number or facility name, a legal description, global positioning coordinates to the sixth decimal point, the number of lined permitted permanent pits associated with the site and an evaluation if a permit or permit modification is required. Within ~~180 days~~ two years after June 16, 2008, 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~~ two years after June 16, 2008, 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 18 months after permit modification or issuance.

D. By no later than October 31, 2009, an operator of an existing below-grade tank shall submit to the division a list of the below-grade tank or tanks of which it is the operator for registration purposes. The registration list shall include the operator's name, the name of the well or facility with which the below-grade tank is associated, the API number or facility name, a legal description, global positioning coordinates to the sixth decimal point, the number of below-grade tanks associated with the site and an evaluation if a permit or permit modification is required. An operator of an existing below-grade tank shall apply for a permit or permit modification pursuant to 19.15.17 NMAC within ~~90 days~~ two years after June 16, 2008. An operator of an existing below-grade tank shall comply with the construction requirements of 19.15.17.11 NMAC within the time provided by applicable provisions of Paragraph (5) or (6) of Subsection I of 19.15.17.11 NMAC ~~within one year of permit issuance~~ or prior to any sale or change of operator pursuant to 19.15.9.9 NMAC.

E. An operator of an existing pit or below-grade tank permitted prior to June 16, 2008, 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 NMAC 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 NMAC 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 NMAC 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 June 16, 2008.

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 NMAC - Rn, 19.15.2.50 NMAC & A, 6/16/08]