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

IN THE MATTER OF THE APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION FOR ADOPTION OF AMENDMENTS TO RULE 19.15.17 (THE "PIT RULE"), STATEWIDE.

CASE NO. 14292

OIL AND GAS ACCOUNTABILITY PROJECT'S PROPOSED CONCLUSIONS OF LAW AND FINDINGS OF FACT

The Oil and Gas Accountability Project ("OGAP"), by and through the New Mexico

Environmental Law Center, submits the followings proposed Conclusions of Law and Findings of Fact.

Conclusions of Láw

1. The Commission adopted the Pit Rule in May 2008 pursuant to its environmental powers, principally its power under NMSA 1978, § 70-2-12(15)(2004) to regulate the disposition of produced water "in a manner that will afford reasonable protection against contamination of fresh water supplies" and its power under NMSA 1978, § 70-2-12(21)(2004) to regulate the disposition of oil field waste "to protect public health and the environment." May 9, 2008 *Order of the Oil Conservation Commission* (Case No. 14015/Order No. R-12939) ("Prior OCC Order"); see also October 20, 2008 *Response of the New Mexico Oil Conservation Commission to the Industry Committee's Statement of Review Issues*, First Judicial District Court, Doc. No. D-101-CV-2008-01863 (setting out the Commission's response to Industry's Statement of Review Issues)("OCC Response Brief").

The Commission may take administrative notice of these documents, which form part of the record of the current Pit Rule on appeal. <u>Cf. NMAC 19.15.4.17</u> ("The commission or division examiner may take administrative notice of the authenticity of documents copied from the division's files"); Tr. V1 at 6.

- 3. "Fresh water" must be protected for present and reasonably foreseeable future use, and the term "reasonably foreseeable" generally means "a time period of not less than 200 years in the future, and ... [may] mean much longer times (thousands of years)." OCD Order No. R-3221-D; see also NMAC § 19.15.2.7(E)(3); NMAC § 19.15.30.9(B).
- 4. Protection of the environment is not limited to protection of fresh water and prevention of human exposure to toxic agents, but also includes protection of soil stability and productivity, agriculture, wildlife, biodiversity and, in appropriate circumstances, the aesthetic quality of the physical environment. Prior OCC Order at 4, ¶ 17.
- 5. Any amendment of the Pit Rule must be consistent with the Commission's statutory authority and purpose in adopting the original Pit Rule.
- 6. In adopting or amending regulations, the Commission cannot act "fraudulently, arbitrarily or capriciously." NMSA 1978, § 39-3-1.1(D)(1999); see also NMSA 1978, § 70-2-25(B) (providing for appeals of Commission decisions pursuant to Section 39-3-1.1). The Commission must act "in accordance with law" and its final decision must be supported by "substantial evidence" in the record. Id.

- 7. A final agency action is not in accordance with law "if the agency unreasonably or unlawfully misinterprets or misapplies the law." Amend Ground Water Quality Stds. Contained in 20.6.2 NMAC N.M. Mining Ass'n v. N.M. Water Quality Control Comm'n, 2007 NMCA 10, 14, 150 P.3d 991, 995 (Ct. App. 2006) (internal quotation omitted).
- 8. "Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." <u>Tenneco Oil Co. v. New Mexico Water Quality Control</u>

 <u>Comm'n</u>, 107 N.M. 469, 477, 760 P.2d 161, 169 (Ct. App. 1987).
- 9. "Arbitrary and capricious action by an administrative agency consists of a ruling or conduct which, when viewed in light of the whole record, is unreasonable or does not have a rational basis, and is the result of an unconsidered, willful and irrational choice of conduct and not the result of the winnowing and sifting process." Perkins v. Department of Human Servs., 106 N.M. 651, 656, 748 P.2d 24, 29 (N.M. Ct. App. 1987) (internal quotation omitted).
- 10. Notwithstanding the instructions or desires of the Governor of New Mexico or of the Secretary of the New Mexico Energy, Minerals and Natural Resources Department, the Commission is required under all circumstances to conduct public hearings and to render final decisions in good faith and in accordance with the rule of law, consistent with the conclusions of law set out in paragraphs 1 through 9 above. See also Kerr-McGee Nuclear Corp. v. New Mexico Envtl. Improvement Bd., 97 N.M. 88, 96, 637 P.2d 38, 46 (Ct. App. 1981) ("In administrative law it is essential that an independent state agency sit as a fair and impartial body at a hearing in which massive and important regulations are to be adopted.")
- 11. The Pit Rule applies only to "persons engaged in oil and gas development and production within New Mexico," NMAC § 19.15.17.2, and the Commission has no general authority to regulate land use. Therefore, notwithstanding the purported requirement in the Pit

Rule that "a person shall not build permanent structures over an on-site burial without the appropriate division district office's written approval," NMAC § 19.15.17.13.F.1.D, the Division has no general authority to restrict land use or prevent surface owners or others from building permanent structures on trench disposal sites or from making such other use of the surface as the law may allow. See also Tr. V2 at 51-52.

- 12. Oil and gas lessees and operators do not own the subsurface pore space and generally have no right under an oil and gas lease to use another's land for permanent disposal of toxic wastes. OCD Trial Brief at 2-5, Case No. 14015.
- 13. The Commission has no statutory authority to take private property or to authorize operators to use another's land for waste disposal.
- 14. The Commission has no statutory authority to adopt a rule for the purpose of reducing costs for operator or oil and gas lessees, and such a purpose would be inconsistent with the stated purposes of the Pit Rule. See NMSA 70-2-12; cf. Public Serv. Co. v. New Mexico Envtl.

 Improvement Bd., 89 N.M. 223, 227, 549 P.2d 638, 643 (Ct. App. 1976) (holding that Environmental Improvement Board had no authority to adopt regulation based on perceived need to allow "more room" for economic development).
- 15. The Pit Rule allows the Divisions to grant exceptions to most of the Rule's requirements, based on site-specific conditions, including requirements relating to on-site trench burial.

 NMAC § 19.15.17.15.
- 16. The Commission can adopt modifications of the rulemaking proposal before it, whether such proposed modifications are made by the applicant or members of the Commission during or after the hearing, so long as the modified proposal is a logical outgrowth of the original proposal. Prior OCC Order at 5, ¶ 21; cf. AFL-CIO v. Marshall, 647 F.2d 1189, 1221 (D.C. Cir. 1980).

Findings of Fact

Unless otherwise indicated expressly or by context, the following proposed Findings of Fact apply only to the Division's proposed amendment of Section 19.15.17.13 (F)(3)(c) (relating to the chloride leachate standard for on-site trench burial and hereafter referred to as the "Chloride Standard") of the Pit Rule.

- 1. The Division's Application provides no reason or rationale for amending the Pit Rule, much less amending the Rule less than one year after the Commission adopted the Rule.
- 2. No evidence in the record established the existence of an emergency or any other reason that the Pit Rule should be amended less that one year after the Commission adopted it.
- 3. No evidence in the record demonstrates that the proposed amendment of the Chloride Standard is necessary or required to protect public health, the environment, or fresh water supplies. Similarly, no evidence in the record shows that this proposed amendment is necessary or required to protect soil stability and productivity, agriculture, wildlife, biodiversity or the aesthetic quality of the physical environment.
- 4. Substantial evidence in the records demonstrates that it was not Division staff who determined that the Pit Rule should be amended, much less amended less than one year after the Commission adopted the Rule. Instead, the record demonstrates that the decision to amend the Pit Rule was made solely by the Governor and the Secretary in private consolation with industry representatives for the purpose of lowering industry costs. Tr. V1 at 15-17, 199, 234; Tr. V2 at 100, 107-108, 124-125, 221, 227.
- 5. There is no evidence in the record regarding the financial impact that the proposed amendments to the Pit Rule would have, if adopted by the Commission. No evidence in the

record demonstrates how much cost, if any, operators would save if the Commission adopts the Division's proposed amendments to the Pit Rule. Tr. V2 at 107. Moreover, the assumption that operators would save money if the Commission adopts the Division's proposed amendments is based on speculation and on agreements, assumptions and allegations not in evidence or not supported by the evidence.

- 6. Although no evidence of cost savings was presented in the instant proceeding relating to the proposed change in the Chloride Standard or any other aspect of the proposed amendments, substantial evidence was presented in the original Pit Rule proceeding showing that the Pit Rule's economic impact on operators would be slight. Pit Rule Administrative Record ("AR") at 1487,1501-1507. Moreover, evidence presented by Industry regarding alleged increased costs was not credible, because it was based on incorrect assumptions and incomplete information. AR at 2744, 2807, 2810, 2816-2818, 2828, 2830, 2840, 2847-2849, 2851, 2854.
- 7. Substantial evidence in the record demonstrates, and the Commission so found in adopting the original Pit Rule, that damage to a trench liner can provide a pathway for fluids to escape, which may contaminate soils or fresh water. Prior OCC Order at 19, ¶ 112; Prior OCC Order at 25, ¶ 154; Tr. V1 at 162; Tr. V2 at 123, 143. There is no reason to believe that all liners will be installed perfectly, Tr. V2 at 58, and there will likely be hundreds of dispersed and unmonitored trench burial sites if the Commission adopts the Division's proposed amendment to the Chloride Standard. See Prior OCC Order at 12, ¶ 74.
- 8. Substantial evidence in the record demonstrates, and the Commission so found in adopting the Pit Rule, that waste constituents over time will leach to ground water from lined pits

and trenches. Prior OCC Order at 12, ¶ 74; OCD Exhibit 8, pages 7-16; Prior OCD Exhibit 21²; Tr. V2 at 130-131 (all liners leak). Therefore, oil field waste should only be buried on-site if the constituents in the waste are at levels that will not result in ground water pollution above 3103 Standards. Prior OCC Order at 12, ¶ 74. This is particularly important given that there are hundreds of wells drilled each year and the wells are located over large areas. Id. The dispersed on-site closure of temporary pits that contain waste with levels of constituents that will likely result in contamination of ground water is not preferable to disposing of the waste in a limited, known number of commercial landfills. Id. Dispersed burial sites increase the potential number of sites where ground water contamination may occur, increase the number of sites that require regulatory oversight, and make it more difficult to determine the source of contamination. Id.

- 9. If liners have defects or are installed improperly, releases that pollute groundwater can occur much sooner and contain much greater concentrations of contaminants when compared to the "good liner" scenario. Prior OCD Exhibit 21, page 32; Tr. V2 at 67-68. Evidence presented by OCD field inspectors and other OCD staff in the hearing on the Pit Rule demonstrates that improperly installed and damaged liners are a common occurrence. Testimony of Carl Chavez, RA at 2651, 2681-2682, 2740; Division Ex. 13B, pp. 2-24, RA at 5953-5975; Division Ex. 13C, RA at 5977-6004; Division Ex. 30, pp. 38-39, RA at 9193-9194.
- 10. On-site trench burial is designed to be permanent, and the wastes contained in the trench will not become less toxic over time. Tr. V1 at 161.
- 11. Nothing in the Pit Rule or the proposed amendments requires the Division to inspect the liner or supervise the liner installation before waste is buried in an on-site trench, and it does not

² "Prior OCD Exhibit" refers to exhibits introduced by the Division in Commission Case No. 14015.

require that those who install liners have any certification or particular education or training. Tr. V1 at 164-165, 166-167; Tr. V2 at 53, 60.

- 12. Nothing in the Pit Rule or the proposed amendments requires the operator to install leak detection devices at an on-site trench burial site, and does not require the operator to monitor or inspect the site for releases after closure. Tr. V1 at 166; Tr. V2 at 53
- 13. Under the Pit Rule, including the proposed amendments, the surface area covered by an on-site trench may be 0.5 acres or larger, and the trench may contain more than 6.5 acre-feet of toxic waste. Tr. V2 at 51.
- 14. Nothing in the Pit Rule or the proposed amendments requires the operator to fence the surface area above an on-site disposal trench or otherwise control the surface area or exclude access.
- 15. Nothing in the Pit Rule or the proposed amendments requires the boundaries of the surface area above a trench disposal site to be marked on identified on the ground. Tr. V2 at 52.
- 16. The waste inside the trench and soil above it can compress over time, causing surface subsidence that will increase infiltration of surface flows into the trench. Tr. V2 at 123.
- 17. Neither the Pit Rule nor any other law prohibits the surface owner or other persons from using the surface area over an on-site trench in ways that could damage the trench liner or otherwise cause a release from the trench. Such damaging uses of the surface may include driving and parking vehicles, building surface structures, drilling wells, and trenching for utility corridors, etc.
- 18. Neither the Pit Rule nor any other law prohibits the surface owner or other persons from drilling water wells immediately down-gradient from a trench disposal site.

- 19. Substantial evidence in the record demonstrates, and the Commission so found in adopting the Pit Rule, that waste constituents such as chlorides that are buried in trenches will eventually leach from the trench and reach ground water. Prior OCC Order at 12, ¶ 73.
- 20. For several reasons, including those set out in these Findings, both the Division and the Commission determined that on-site disposal of oil field wastes, including so-called deep trench burial, should be minimized. Tr. V1 at 175-177; Tr. V2 at 51; Prior OCD Exhibit 21 at 37. No evidence in the record indicates that this policy of minimizing on-site closure was ill-advised or that it should otherwise be reversed.
- 21. Substantial evidence in the record demonstrates, and the Commission so found in adopting the Pit Rule, that the decision to authorize on-site closure, including burial in a lined trench, should be based on the level of various constituents in the waste and site specific information. Prior OCC Order at 12, ¶ 71.
- 22. Substantial evidence in the record demonstrates, and the Commission so found in adopting the Pit Rule, that whether the constituents in oil field waste pose a risk to public health or the environment should be based on the constituent's leachate concentration. Prior OCC Order at 13, ¶ 78; Prior OCC Order at 32, ¶ 204.
- 23. The 250 mg/1 Chloride Standard imposed under the existing Pit Rule is protective of ground water because if a chloride leachate of 250 mg/1 reaches ground water it will not cause an exceedance of the state ground water standard, which is 250 mg/1. Chloride is a good tracer for contamination because it is rarely inhibited as it passes through the soil. Prior OCC Order at 13, ¶ 79.
- 24. As long as the waste constituents are below levels that would result in contamination, as required by the siting and waste criteria the Commission adopted in 19.15.17.10 NMAC and

Subsection F of 19.15.17.13 NMAC of the existing Pit Rule, protection of fresh water, public health, and the environment is provided and surface owner approval is not needed to provide such protection. Prior OCC Order at 32, ¶ 205.

- 25. The Division proposes to amend NMAC § 19.15.17.13(F)(3)(c) to increase the Chloride Standard from 250 mg/l to 3000 mg/l. This corresponds to a concentration of chloride in the waste of approximately equal to 60,000 mg/kg, and a concentration in the waste leachate of 60,000 mg/l or more (i.e., at least 240 times greater than the Section 3103 groundwater standard for chloride). OCD Exhibit 8, page 13; Tr. V2 at 132-133. The rule allows still greater concentrations of chlorides in the waste if "background" is greater, yet it places no restriction whatever on how or where background samples are collected or analyzed. Indeed, the rule does not even define "background."
- 26. In contrast to the existing Pit Rule, which requires the waste leachate to meet the 3103 Standard of chloride, a waste disposed in a lined trench under the Division's proposed amendment would contaminate groundwater in excess of the 3103 standards for chloride and total dissolved solids ("TDS"), even under the "good liner" scenario. OCD Exhibit 8.
- 27. Oil field waste contains numerous contaminants for which standards exist under Section 3103(B) and 3103(C). Tr. V1 at 144-145. However, with the exception of chloride, neither the existing Pit Rule nor the Division's proposed amendment impose any limitation on the contents of the waste with respect to any water contaminant listed in Section 3103(B) or 3103(C).
- 28. Nothing in the record demonstrates that the proposed amendment of the Chloride Standard would prevent a release from an on-site trench disposal from polluting groundwater above the water quality standards set out in Sections 3103(B) and 3103(C). Unlike a landfill, the surface area will be uncontrolled and there will be no leak detection or monitoring post closure.

29. Nothing in the record indicates that the proposed amendment will protect fresh water for reasonably foreseeable future use, which under OCD precedent may occur thousands of years in the future and is never considered less than 200 years in the future. Moreover, nothing in the record supports a finding that the "reasonably foreseeable future" should be universally defined by or limited to any particular time horizon with respect to the Pit Rule.

30. For purposes of the proposed amendment, the Division only modeled the "no liner" and the "good liner" scenario with respect to on-site trench burial. In contrast, in support of the original Pit Rule in Case No. 14015, the Division modeled the "poor liner" scenario. Prior OCD Exhibit 21.

31. In the Division's Help model calculation, the Division assumed a trench surface area of 0.5 acres. OCD Exhibit 9, page 18. In contrast, the area of the "waste disposal unit" from which infiltration was simulated in the Multimed model was assumed to be only 167 meters squared, OCD Exhibit 9, page 27, which is more than an order of magnitude (0.04 acres) smaller than the assumed surface area of the trench.³

32. The surface area of infiltration affects the timing, rate and concentration of contaminant migration from a disposal trench, Tr. V2 at 71-71, but the Division could not explain why it chose such a small area of infiltration (167 meters squared) for the Multimed Model, or why the surface areas used in the Help and Multimed models were inconsistent. Tr. V2 at 71-71. This unexplained inconsistency invalidates the Division's modeling results.

33. The Division's modeling results are further called into question, because the Division assumed only a 50-year pulse of contaminant infiltration at a rate of approximately 2 mm per year, rather than a longer release at more realistic infiltration rates under a "poor liner" scenario;

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 $^{^{3}}$ 1 acre = 4046.86 square meters.

and because it did not perform any sensitivity analysis to demonstrate that reasonable changes in parameters would not affect the results. Tr. V2 at 57-58, 64-65, 131.

34. In contrast to the process under which the Pit Rule was adopted, the Division did not conduct any stakeholder process before submitting the proposed amendments to the Pit Rule or otherwise seek any objective outside evaluation of its modeling or assumptions. Tr. V1 at 199; Tr. V2 at 50.

35. There is no substantial evidence in the record showing why an operator cannot effectively reduce his costs, in a particular case, by simply applying to the Division for an exception to the on-site trench disposal criteria pursuant to existing Division regulations. Thus, there is no showing that the Chloride Standard needs to be amended for economic reasons; even assuming such reasons were a valid basis to support the proposed rule change.

WHEREFORE, based on the foregoing Conclusions of Law and Findings of Fact, the Commission declines to adopt the proposed amendment to Section 19.15.17.13 (F)(3)(c).

Respectfully submitted,

NEW MEXICO ENVIRONMENTAL LAW CENTER

Bruce Frederick

Eric Jantz

Doug Meiklejohn

1405 Luisa Street, Suite 5

Santa Fe, New Mexico 87505

505-989-9022

bfrederick@nmelc.org

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was mailed on the 28th of April, 2009, to the following persons:

David K. Brooks, Esq.
Attorney for the Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

William H. Carr, Esq. Holland & Hart, LLP 110 North Guadalupe, Suite 1 Santa Fe, New Mexico 87501

Eric Hiser Jordan Bischoff & Hiser, P.L.C. 7272 E. Indian School Rd., Suite 360 Scottsdale, AZ 85251

Karin V. Foster, Esq. / Director of Government Affairs IPANM 5805 Mariola Pl., NE Albuquerque, NM 87111

Donald A. Neeper, Ph.D. 2708 B Walnut St. Los Alamos, NM 87544-2050

Bruce Frederick