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### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENTO 04 OIL CONSERVATION COMMISSION

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

**CASE NO. 14292** 

# PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF THE INDUSTRY COMMITTEE AND CONOCOPHILLIPS COMPANY

The Industry Committee (the Industry Committee members participating in this hearing are Burlington Resources Oil & Gas Company LP, Chesapeake Operating, Inc., ConocoPhillips Company, Devon Energy Corporation, Dugan Production Corporation, Energen Resources Corporation, D.J. Simmons, Inc., Williams Production Company, and XTO Energy, Inc.) and ConocoPhillips Company request that the Oil Conservation Commission adopt the following Findings of Fact and Conclusions of Law in this case.

## **FINDINGS OF FACT**

- 1. By Order No. R-12939, dated May 9, 2008, the Oil Conservation Commission adopted a new Rule 17 governing pits, below grade tanks, and closed loop systems (the "Pit Rule") which became effective on June 16, 2008.
- 2. Certain provisions of the Pit Rule impose unreasonable burdens and unnecessary costs on the oil and gas industry.
- 3. On February 18, 2009, Governor Bill Richardson issued a press release directing the Secretary of the Energy, Minerals and Natural Resources Department to work with the oil and gas industry to modify several provisions of the Pit Rule to allow oil and gas companies to better absorb the costs associated with these rules.
- 4. To comply with the Governor's directive, the Oil Conservation Division ("Division") proposed six changes to the Pit Rule and on February 27, 2009 filed its

Application for Rulemaking proposing amendments to the Pit Rule.

5. This matter came for hearing before that Oil Conservation Commission on April 2 and 3, 2009.

#### **BELOW GRADE TANKS:**

- 6. The Division recommends amendments to the Pit Rule's Design and Construction Specifications (19.15.17.11.I NMAC); Operational Requirements (19.15.17.12.D NMAC); Closure Requirements (19.15.17.13.A(5) NMAC); and Permit Transfer Provisions (19.15.17.16.F NMAC) to delay the retrofitting or closure of most below-grade tanks that existed prior to June 16, 2008 until integrity fails, final closure, or the sale or transfer of the below-grade tank.
- 7. The evidence presented by the Division, the Industry Committee and ConocoPhillips established:
  - A. maintenance and integrity of below grade tanks are the major factors in assuring protection of fresh water, public health and the environment;
  - B. the inspection, operational, closure and transitional requirements of the Pit Rule are sufficient to maintain the integrity of existing tanks that are susceptible to inspection, with or without the presence of a leak detection liner and that the closure and transitional provisions are sufficient to alleviate any loss of integrity that may occur;
  - C. while addition of a leak detection liner is an important step in improving future environmental performance, the benefits of this additional protection do not justify the costs of requiring an immediate retrofit of below-grade tanks that otherwise can demonstrate maintenance of integrity under the Pit Rule;
  - D. the constituents which could be potentially harmful to fresh water,

human health and the environments are released at such low concentrations that the recommended amendments, which would permit these below grade tanks to continue to operate without a detection liner, can be adopted and the Pit Rule will remain fully protective of groundwater, human health and the environment [Testimony of Wurtz]; and

- E. requiring existing below-grade tanks that do not meet the full standards of the Pit Rule to retrofit or replace prior to transfer or sale to a third party (e. g. a party not under common control with the current operator) is a reasonable step unless the third party can demonstrate, to the satisfaction of the Division, that it has (1) the technical and financial capability to maintain tank integrity and undertake any required cleanup; (2) the below-grade tank meeting Pit Rule standards has not had any integrity failures within the prior five years; and (3) the below-grade tank is not at the end of its useful life. If the third party can make such a demonstration, there does not appear to be any additional risk to fresh water, public health or the environment in allowing transfer without retrofit.
- 8. Implementation of these measures will protect fresh water, public health and the environment and should be approved, with the exception that the requirement to retrofit prior to sale or transfer should be relaxed where the new operator demonstrates that it has (1) the technical and financial capability to maintain tank integrity and undertake any required cleanup, (2) the below-grade tank meeting Pit Rule standards has not had any integrity failures within the prior five years; and (3) the below-grade tank is not at the end of its useful life.

#### RECORD KEEPING AMENDMENT:

- 9. The Division recommends an amendment to the Operational Requirements of the Pit Rule (19.15.17.12.D NMAC) that requires operators to maintain a written record of each monthly inspection of each below-grade tank for the life of the below-grade tank.
- 10. The ConocoPhillips' evidence showed that when there is failure of a below-grade tank, the operator of that tank must report the failure and repair the tank or otherwise mitigate the problem.
- 11. The value of records of inspections more than five years ago is minimal in predicting or assessing whether a tank will demonstrate integrity and the requirement to maintain records of inspection for the life of a tank and the retention of these monthly inspection reports for the life of the tank imposes an unnecessary additional burden on oil and gas operators. [Testimony of Wurtz]
- 12. Maintenance of records of inspection for five years, as required by the Pit Rule, is adequate for the protection of fresh water, public health and the environment. [Testimony of Wurtz]

#### THE CHLORIDE STANDARD FOR ON-SITE TRENCH BURIAL:

- 13. The Division proposes to amend the Pit Rule to increase the limits for chlorides in wastes for on-site trench burial from 250 mg/L to 3,000 mg/L "or the background concentration, whichever is greater." (19.15.17.13.F(3) NMAC)
- 14. The Division presented modeling results obtained by combining the HELP and MULTIMED models and testified that:
  - A. the combination of the HELP and MULTIMED models represents one reasonable way to assess the potential impact of cutting disposal in a lined deep trench on future contaminant levels in groundwater [Testimony of Mr. Hansen];
  - B. the Division's HELP and MULTIMED modeling present a

- conservative assessment of maximum likely chloride levels in groundwater at 1m down gradient from the edge of the deep trench burial site containing cuttings with up to 3000mg/L chloride present, using EPA methods 1312 and 300.1;
- C. the HELP and MULTIMED modeling suggests a reasonable maximum chloride concentration resulting from the disposal of cuttings containing up to 3000 mg/L of chloride, measured using EPA methods 1312 and 300.1 of 1250 mg/L and likely considerably less, with a maximum impact in approximately 1000 to 2000 years in the future; and
- D. based on its experience and expertise and in light of the conservatism of the modeling, the Division concluded that allowing deep trench burial of cuttings up to 3000 mg/L, measured using EPA methods 1312 and 300.1, subject to siting, design, operational and closure restrictions set forth in the Pit Rule is protective of fresh water, public health and the environment and of the chloride water quality standard at the point of withdrawal for present or reasonably foreseeable use. [Testimony of Hansen; Testimony of Wurtz]
- 15. No evidence of adverse cumulative impact was presented and that such concerns are mitigated by the Commission's and Division's existing rules on well-spacing and siting.
- 16. Donald Neeper, Witness for New Mexico Citizens for Clean Air and Water, reviewed the results of certain modeling and field exercises that:
  - A. demonstrated that chloride could possibly move preferentially upward in the soil profile under certain soil types and moisture conditions; and

B. showed the proposed standard is equivalent to approximately 30,000 mg/kg soil or about 3 times the permanent wilt point for almost all plants at 15% volumetric moisture. [Testimony of Neeper; NMCCAW Exhibit 2, page 12]

### 17. A full review of the record shows that:

- A. the evidence failed to establish that chlorides move preferentially upward under conditions in New Mexico [Testimony of Buchanan];
- B. chloride is not reasonably likely to rise more than a few centimeters, and certainly not to the surface, under conditions predominating in New Mexico where cuttings are disposed in accordance with the Pit Rule, the depth to groundwater is 50 to 100 feet or more, and there is one foot or greater cover over deep trench burial or other salty material [Testimony of Dr. Buchanan];
- C. the liner requirements of the Pit Rule provides additional protection from salt migration upward [Testimony of Dr. Buchanan]; and
- D. the four feet of cover required by the Pit Rule is an adequate rooting depth for most native and cover species. [Testimony of Dr. Buchanan]
- 18. The adverse effects of chloride contamination on plant vitality suggested by Dr. Neeper will not be observed where the siting restrictions are followed and four feet of cover is provided over the deep trench burial site. [Testimony of Dr. Buchanan]
- 19. Permitting the disposal of cuttings containing up to 3000 mg/L of chloride, measured by EPA Methods 1312 and 300.1, is unlikely to cause substantial surface disruption in New Mexico given the siting restrictions and closure requirements for depth to groundwater of 100 feet or more and four feet of cover. [Testimony of Buchanan]

20. The proposed chloride burial standard of 3000 mg/L will provide protection of fresh water, public health and the environment when combined with the baseline requirements established by the Commission in the Pit Rule "such as the siting requirements (100 foot separation to ground water from the bottom of the trench), design and construction specifications of the on-site trench (proper sub grade prep, liner specifications, and seam installation and replacement requirements, waste content burial standards [the WQCC Section 3103 Groundwater Constituents other than chloride], and the site reclamation, soil cover, and re-vegetation requirements." [Testimony of Jones, OCD Exhibit 6 at page 45; Testimony of Wurtz].

## **CONCLUSIONS OF LAW**

- 1. That the Pit Rule imposes unreasonable burdens and unnecessary costs on the oil and gas industry.
- 2. The Oil Conservation Division has proposed amendments to the Pit Rule to modify certain provisions to allow oil and gas companies to better absorb the costs associated with these rules.
- 3. The Division's proposed amendments to the Pit Rule's Design and Construction Specifications (19.15.17.11.I NMAC); Operational Requirements (19.15.17.12.D NMAC); Closure Requirements (19.15.17.13.A(5) NMAC); and Permit Transfer Provisions (19.15.17.16.F NMAC) that delay the retrofitting or closure of most below-grade tanks that existed prior to June 16, 2008 until integrity fails, final closure, or the sale or transfer of the below-grade tank, [which will permit these below-grade tanks to continue to operate without a detection liner] can be adopted and the Pit Rule will remain fully protective of groundwater, human health and the environment and are approved, except that retrofit prior to sale or transfer to a third-party operator should not be required where the new operator demonstrates to the Division's satisfaction that it has (1) the technical and financial capability to maintain tank integrity and undertake any required cleanup, (2) the below-grade tank meeting Pit Rule

standards has not had any integrity failures within the prior five years; and (3) the below-grade tank is not at the end of its useful life.

- 4. The Division's proposed amendment to the Operational Requirements of the Pit Rule (19.15.17.12.D NMAC) that requires operators to maintain a written record of each monthly inspection of each below-grade tank for the life of the below-grade tank provides no information not otherwise available to the OCD, imposes an unnecessary additional burden on oil and gas operators and is denied.
- 5. The Division's proposed amendment to the Pit Rule's on-site trench burial waste content chloride standard (19.15.17.13.F(3) NMAC) to increase the chloride limits from 250 mg/l to 3,000 mg/l "or the background concentration, whichever is greater" when combined with the baseline requirements established by the Commission in the Pit Rule such as the siting requirements (100 foot separation to ground water from the bottom of the trench), design and construction specifications of the on-site trench (proper sub grade prep, liner specifications, and seam installation and replacement requirements, waste content burial standards [the WQCC Section 3103 Groundwater Constituents other than chloride, and the site reclamation, soil cover, and re-vegetation requirements will provide protection of fresh water, public health and the environment and is approved.

Respectfully Submitted,

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#### CERTIFICATE OF SERVICE

I certify that on April 10, 2009, I served a copy of the foregoing document to the following by U.S. Mail, postage prepaid, or Hand Delivery:

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