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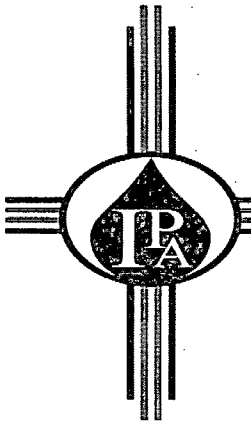

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October 29, 2007

Ms. Florene Davidson
Commission Clerk
New Mexico Oil Conservation Commission
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: CASE NO. 14015 The matter of the application of the New Mexico Oil Conservation Division for repeal of existing rule 50 concerning Pits and Belowgrade Tanks and adoption of a new rule governing pits, belowgrade tanks, closed loop systems and other alternative methods to the foregoing, and amending other rules to conforming changes; statewide.

Dear members of the Oil Conservation Commission:

Pursuant to 19.15.14.1204 NMAC, please find following our comments to the proposed Pit Rule (case no. 14015). IPANM wholly adopts and supports all recommendations made by the Industry Committee[1], Yates Petroleum, Inc. and Synergy Operating, LLC.

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[1] The Industry Committee represented by Mr. Bill Carr and Mr. Eric Hiser, consists of : BP America Production Company, Benson-Montin-Greer Drilling Corporation, Boling Enterprises, Lt., Burlington Resources Oil & Gas Company, Chesapeake Energy Corporation, Chevron USA, Inc., ConocoPhillips Company, DJ Simmons, Inc., Devon Energy Production Company, Dugan Production Corp., Energen Resources, Marathon Oil Company, Marbob Energy Corporation, Merrion Oil and Gas Corp., Occidental Permian, Ltd., OXY USA, Inc., OXY USA WTP Limited Partnership, Samson Resources Company, Williams Production Company, LLC, XTO Energy, Inc., and Yates Petroleum Corporation.

I. Executive Summary

IPANM consists of approximately 230 companies who mostly live and work in New Mexico, raise families in New Mexico and hire locally to produce oil and gas in New Mexico. The majority of the IPANM members are companies who have, on average, 25 employees or less. Many companies are second, third or fourth generation oil people. Independents drill some 85% of the domestic wells and produce some 82% of the natural gas and 68% of the crude oil in New Mexico. According to census information compiled by the US Small Business Administration, there are over 606 businesses who employ less than 21 individuals in the Mining[2] industry in New Mexico. In FY 03, there were 12,691 employees living and working for those companies in New Mexico. In FY 04, the number of employees with established firms classified as having less than 20 employees rose to 14,708. [3] Note that these firms are classified as within the extraction industry and do not quantify economic spillover directly or indirectly affecting other industries.

The NMOCD proposed rule poses several significant issues for the IPANM membership. First, the legal requirements that NMOCD must meet prior to the promulgation of a new or changed regulation have not been met. The Small Business Regulatory Relief Act of 2005 [*14-4A NMSA 1978]* demands that all New Mexico agencies review and consider the negative economic impacts of a rule on small business entities prior to either changing or drafting a new rule. It is our belief that the NMOCD failed to either consider the economic impacts or adequately discuss the negative economic ramifications of the proposed rule with entities representing small oil and gas producers in the state. Since the proposed rule is an issue of 'valid dispute' under the Governmental Alternate Dispute Resolution Act of 2007, IPANM is entitled the right to alternative dispute resolution to

2 North American Industry Classification System code 21 which encompasses Mining, Quarry mining and Oil and Gas Extraction. Small Business Business numbers, from SBA.gov; http://www.sba.gov/advo/research/st03_04.txt

3 *Id.*

resolve the issues in the proposed rule affecting small businesses in New Mexico. *[12-8A NMSA 1978].*

Economic concerns – see analysis for Small Business Regulatory Relief Act

Safety Concerns – closed loop systems

- Environmental impact
-

The Oil Conservation Division failed to address the issues concerning economic impact on small businesses and therefore violated the mandates of the Small Business Regulatory Relief Act.

According to the Department of Energy, independent oil and natural gas companies currently drill 85% of the domestic wells and produce 82% of our homegrown natural gas and 68% of our crude oil. In New Mexico, oil and natural gas are the biggest drivers of the state's economy, generating $2.3 billion in direct revenue to the state in fiscal year 2006. The oil and gas producers of New Mexico are the first and vital small businesses in the long chain of private entities who work with and for industry – to the benefit of the state. IPANM currently represents about 230 companies who are independent 'small businesses' employing on average twenty-five people. Most of our small producers are New Mexico based companies who live in, work in and employ folks from the 'land of enchantment'.

The Small Business Regulatory Relief Act (hereinafter SBRRA), sponsored by Speaker Ben Lujan and signed into law by the Honorable Governor Bill Richardson on April 6, 2005, requires that all New Mexico state agencies pay heed when promulgating rules or regulations that may have a negative impact on small businesses. Under the law, a 'small business' is defined as "a business entity, including its affiliates, that is independently owned and operated and employs fifty or fewer full-time employees" *14- 4A-3(E) NMSA 1978.* A 'rule' means, "any rule, regulation, order, standard or statement of policy, including amendments to or repeals of any of those, issued or promulgated by an agency and purporting to … affect persons not members or employees of the issuing agency". *14-4A-3(D) NMSA 1978.* At the time of the creation of the Small business Regulatory Relief Act, the Legislature demonstrated an explicit understanding that 'a vibrant and growing small business sector is

critical to creating jobs in a dynamic economy; [and that] small businesses bear a disproportionate share of regulatory costs and burdens" *14-4A-2(A, B).* The legislature further stated that "the process by which state rules are developed and adopted should be reformed to require agencies to solicit the ideas and comments of small businesses, *to examine the effect of proposed and existing rules on such businesses* and to review the continued need for existing rule" 14-4A-2(*J emphasis added).*

SBRRA mandates all state agencies to first consider whether a "proposed rule has an adverse effect of small businesses" and second, to "consider regulatory methods that accomplish the objectives of the applicable law while minimizing the adverse effects on small business". *14-4A-4(B).* The Legislature also ordered state agencies to review "*all* of its rules that existed on the effective date of the Small Business Regulatory Relief Act to determine whether the rules should be continued without change or should be amended or repealed to minimize the economic impact of the rules on small businesses, subject to compliance with the stated objectives of the laws pursuant to which the rules were adopted" *14-4A-6(A).* The end date for the review of all agencies rules as they pertained to small business was July 1, 2010.

Under the mandates of the SBRRA, when an agency determines a change in a rule is needed, the agency **must** consider "(1) the continued need for the rule; (2) the nature of complaints or comments received from the public concerning the rule; (3) the complexity of the rule; (4) the extent to which the rule overlaps, duplicates or conflicts with other federal, state and local government rules; and (5) the length of time since the rule has been evaluated or the degree to which technology, economic conditions or other factors have changed in the topical area affected by the rule." *14-4A-6(C)(1-5) emphasis added.*

Small business impacts of the proposed rule

The business impacts of the proposed Pit rule affect not only small oil and gas producers in the State, but all upstream producers and ancillary businesses including well servicing companies and professional services. The 'spillover' or 'multiplier' impacts on the local economy associated with oil and gas development are huge. However, while direct

impacts within the oil and gas and construction industries may be easy to quantify, the indirect or induced impacts as businesses funnel funds into the local economy and employees spend their incomes on other local small businesses is more difficult to quantify. But the spillover effect as oil and gas expenditures circulate within the local economy leads the direct impact to be 'amplified' or 'multiplied'.[4] In locales where the number of jobs associated with oil and gas is relatively high, where there is both a processing plant and established servicing companies, where there is enough activity to maintain a stable and specialized workforce who make long term personal investments in the region, the multiplier effect is quite high. In the San Juan county region where dollars general stay in the Durango-Farmington area, the multiplier has been estimated to be over 1.45. [5] Mr. Bob Gallagher, President of the New Mexico Oil and Gas Association has stated before the Legislative Finance Committee, that each new well drilled in New Mexico causes a quantifiable $1,000,075 economic impact on the local economy. The number of wells that produced either oil or gas in FY06 was 46, 283 and the number of wells reporting first production in the same year was 2697. [6]

There is also a local and state tax yield from the production of oil and gas in the State. Currently there are six taxes directly on oil and gas extraction and processing in the state; 1) oil and gas severance tax; 2) Conservation and reclamation tax; 3) Emergency school tax; 4) oil and gas ad valorem production tax; 5) natural gas processors tax; and 6) oil and gas ad valorem equipment tax. Oil and gas well servicing and well drilling are considered construction services and subject to the gross receipts tax.[7] According to the Legislative Finance Committee projections, the price of Natural Gas is expected to rise in FY08 to $6.65 mcf to $7.05 mcf in FY 09 and the price of oil is forecast to be $64 bbl for FY08 and FY 09.[8] The LFC report notes that the downsize to the forecast numbers

4 *The local economic impacts of Natural gas development in Valle Vidal, New Mexico*, Thomas Power, Jan 2005, p. 10
5 *Id.*
6 NMOCD website, statistics *Wells and APD types;* GO-Tech website, *First Production results page, 2006.*
7 *The Oil and Gas Industry in New Mexico – An Economic perspective*, Laird Graiser, Decisionmakers field guide 2002, New Mexico Tech, p. 48
8 *2007 Revenue Forecast, July 2007,* prepared for Legislative Finance Committee presentation October 23, 2007.

directly correlates to "production bottlenecks limit[ing] access to market and wellhead prices fall[ing which will] lead to lower severance taxes, rents and royalties and less corporate income taxes" In FY06, energy revenues constituted 21% of recurring revenues in the general fund. [9] However, even with increasing value of oil, the volume of production in the state has decreased and is expected to decrease substantially over the next few years. According to testimony given by Secretary Jan Goodwin, of the Taxation and Revenue Department, in FY09, with the price per barrel well over the $70/bbl mark, production will be in at the 58 million barrel level which is a huge drop from the 70 million barrel production in FY01. Similarly, the production levels for Natural gas will be less than 1,400 bcf at a value of approximately $5.50 an mcf for FY09 down from 1,600 bcf production levels in 2001.[10] Another direct indication of reduction of future production in New Mexico is the rig counts which has fluctuated on a downward trend from 85 rigs in January to 69 rigs in October, while the rig count in Colorado has increased over the same period from 98 to 119 rigs.

Direct costs related to the proposed pit rule directly correlate to the methods that an operator is force to dispose of drilling fluids and cuttings. If an operator is within 100 miles of a landfill, he has no option but to use a closed loop system and to fully haul all drill cuttings to a division approved facility. Similarly, if the well location is within 50 feet to ground water, the operator will have no option but to use closed loop drilling methods and to dig and haul any drying pads to the division approved facility. 'Removing solid waste off-site to a commercial facility has the potential of substantially impacting the cost of complying with the [proposed Pit]draft rule, particularly if the distance between the well site and the facility is considerable. The cost of renting closed loop systems equipment versus earthen pit construction .. also adds to the cost of complying with the draft rule"[11] Mr. Smalls has estimated that implementation of the methods required in the proposed draft rule will add as much as 8% to the current cost of

9 *Id.* at p. 10
10 *New Mexico Taxation and Revenue Forecast, June 2007,* prepared for Revenue and Stabilization and Tax policy presentation, July 2007.
11 "*IPANM economic analysis of proposed Pit Rule,*" Sam Smalls, Fall 2007.

drilling a well in Southeast New Mexico and as much as 10% to the current cost in Northwest New Mexico. However, as noted above, the impact of a substantial increase in cost of operations to a small oil and gas producer will expand to the ancillary dependent industries as well as substantially affect the revenues to the State. As noted by Tom Mullins, Engineering Manager of Synergy Operating, LLC, "as an independent oil and gas company with investment opportunities in Utah, Colorado and Wyoming, I can confirm that Synergy will be forced to reduce out capital investments in New Mexico." Note that Mr. Mullins makes the very convincing argument that the current regulatory atmosphere and the lack of demonstrable science or environmental impacts of the current methods of operations indicates instability and therefore higher risk to potential investment dollars in New Mexico. Mr. Bob Gallagher, President of the New Mexico Oil and Gas Association also testified before the Legislative Finance Committee, "investment dollars are cowards, they follow the path of least resistance... I can assure you that a 10% increase in operational costs will decrease drilling investment in the state by 50%" Mr. Gallagher also predicted a $500 million shortage in oil and gas revenues, based on his conversations with NMOGA clients.

Moreover, since all scientific evidence indicates that there are no toxins in any type of oil and gas pit, thus, removal of the pit will not achieve any additional protections for the public safety. In fact, the excavation of the pit and transport of the contents and the used liners will result in approximately 25 million additional driving miles per year – at a cost of 3.5 million gallons of diesel fuel and an increase in drilling costs of more than 10% per well[12]. Currently the cost of closing a pit is about $12, 000 to $15,000 which involves rolling the liner into an on-site trench and back filling the pit and the trench with native top soil. With the proposed rules, it is estimated that the cost will increase 15 fold to about $180,000 to $200,000 per well to fully excavate, test and remove all contents from the site to a land fill. This is assuming that under the Surface Waste Management rule that permitting for landfills will occur with enough speed to accept the increase in

12 Collins, G. for CARE, "*It's the pits*" comments on NM proposed drilling pit closure rule, March 2006, pg. 2

demand for land fill space[13]. It is also interesting to note that none of the other top seven oil producing states require more than evaporation of liquids in the pit and back fill to close industry pits. Moreover, the portion of the rule mandating dig and haul without exception ignores the Memorandum of Understanding between the NMOCD and the Bureau of Land Management that allows the State rule to supercede the federal guidelines for closure. With this new pit rule, there will be conflicts on federal surface.

Finally, as a negative impact on small business, IPANM contends that there is an over emphasis on the benefits of closed loop systems in the proposed rule. There is no scientific proof that closed loop systems are of a benefit to the human health, safety or the environment. According to one operator, a typical well has an 12 1/4" hole drilled to 1800' and yields 1473 cubic feet of cuttings, an 8 3/4" hole is drilled to 8200' and yields 2673 cf of cuttings for a total of 4146 cf - assuming a gauge hole and no "swell factors". For every barrel of cuttings that goes over the shaker and centrifuges in a closed loop system, there are about 1.25 barrels of fluid that are lost over the slides totaling about 935 barrels. To contain the 4146 cf of cuttings and the 935 barrels (5,250 cf) of fluid, requires a pit that is approximately 125' by 12" by 6'. The surface area for this pit would be at least 2300 sq.ft. By contrast, a reserve pit for a conventional circulation system is usually 10,000 sq. ft.. However, an on site visit to a working location revealed that the disturbed area for water tanks, overhead centrifuges and cutting holding tanks and a water discharge pit resulted in approximately 9,000 sq. ft of disturbed surface – the same as for a conventional system. By contrast, the guaranteed environmental impact of using a closed-loop system: (1) Additional tanks means more land cleared for well pads; (2) Trucks must haul much more water creating more air pollution, noise, dust in the air, road damage, and fuel consumption; (3) More ore must be mined to create the steel needed for the tanks; (4) These tanks require a lot of intensive welding, which puts more noxious fumes into the air. In closed-loop systems controlling the drilling process is much more difficult. It's harder to maintain the proper balance of fluid in the hole. If the mud is too

13 Currently, all Northwest operators must transport excess cuttings and waste from closed loop systems to Southeastern New Mexico since there are no land fills up North. Note that indemnity issues for the erosion and potential toxicity of pit liners will not be resolved and may result in future extensive environmental litigation against the State.

heavy it slows down drilling, which sometimes leads to the mud "gumming up" the porous rock so the well cannot produce. Money is wasted and a new well must be drilled creating more environmental impact. If the mud is too light a "blowout" can occur in which large amounts of gas are vented into the air. Blowouts are also very dangerous for oilfield workers. Increased regulations from an unstable entity who has promised a non-degradation policy in all rules affecting the oil patch, increased monetary and human costs, decreased investments, increased safety and human issues and increased damage to the environment by emitting tons of greenhouse gases demonstrate the very high cost to all businesses in New Mexico without the necessary balance of protection of the human health, safety and the environment.

Prior comments concerning the current pit rule failed to demonstrate scientific or environmental factual support for changing the rule

Prior comments on the need to change the Pit Rule demonstrate that the proposed Pit rule is not based on sound peer-reviewed science. In addition, IPANM would contest the public meeting process the NMOCD held during the month of December 2006. First, the power point presentation used by NMOCD staff and managed by Director Fesmire[14] implied that harm to the environment had occurred as a result of drilling operations in the oil patch. As noted by several persons in the audience, and subsequently in a formal demand by William Carr, attorney for the industry committee, the incidences of damage to ground water from the use of temporary pits has not been substantiated by actual evidence from NMOCD. Indeed, the Division has refused to comply with Mr. Carr's request for the numerical data. Second, the 'testimony' taken at the meetings consisted of purely anecdotal renditions, without opportunity to question or even determine the identity and standing of the speakers. Third, as to standing, IPANM would contest any statements raised by the Oil and Gas Accountability Project, which is based in Durango Colorado, and as such is not a party of legal standing to this case. A review of the prior

14 IPANM contends that the presentation was 'managed' by Director Fesmire, since we complained that the slides in the presentation lacked dates or locations. Director Fesmire ordered Mr. Wayne Price to change the presentation, which did occur, although only dates were included on the slides and no indication of the types of pits was indicated on the presentation slides.

statements made by several experts in the fields of soil science and toxicology, which IPANM would move to make part of the record in this case (Case no. 14051), exhibit drastic concerns in the NMOCD proposed Pit rule.

Conclusions based on science provide no technical justification for the proposed pit rule.

As clearly demonstrated by the experts in the prior Pit rules meetings, the proposed Pit rule is not based upon sound peer-reviewed science. At the stake-holder's meeting of February 27, 2006, several experts in the fields of soil science, remediation and toxicology presented written and oral testimony regarding the proposed pit rule. Dr. Ben Thomas of Exponent, a recognized expert in hydrocarbon toxicology and risk assessments, addressed the toxicity of pit materials. Dr. Lloyd Deuel, of Chemist-Soil Analytical Resources, Inc., a soil chemist, discussed the required soil and pit conditions to prevent salt mobility. Dr. Daniel Erskine, of Maxim Technologies, Inc., applied the salt mobility discussion to New Mexico, specifically the differences between the Southeast geophysical attributes to the Northwest water and pit conditions. At the conclusion of the stake holder's meeting, it was clear that no change in policy is necessary for the protection of the public health, safety and the environment.

Dr. Ben Thomas, PhD, Exponent – Health Sciences Group

Dr. Ben Thomas has over 30 years of experience in toxicology, pathology, risk assessment, regulatory negotiations and strategic planning. He has supervised large multidisciplinary projects using risk-based methods to establish remedial priorities and closure under RCRA, Superfund and state programs. Dr. Thomas' presentation overwhelmingly achieved two goals: To summarize the understanding of the toxicity of pit contents; and to provide specific technical comments to the OCD's proposed pit rule. In brief, Dr. Thomas outlined the history of the analysis of toxins in the oil field. In 1988, the Environmental Protection Agency concluded a near decade long study of toxicity issues in resource conservation and recovery. The EPA determined that oilfield 'extraction and production wastes' do not present such risks that they warrant regulation

as hazardous waste. Documented quantitative risk modeling further indicated that, when managed in accordance with current State and Federal requirements, exempt oil and gas wastes rarely pose significant threats to human health, safety and the environment. Dr. Thomas has personally tested and quantified the toxicity of oilfield wastes for the Louisiana Department of Natural Resources[15] in 1998. As part of his analysis, Dr. Thomas analyzed oilfield wastes by the Toxicity Characteristic LeachingProcedure 40 C.F.R. §261.24 (TCLP) standard mandated by the EPA.

"Because Congress had defined hazardous waste to include any solid waste that may "pose a substantial present or potential hazard to human health, safety or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed," 42 U.S.C. § 6903(5)(B), the EPA set out to design a test that would determine whether a solid waste would pose a risk to human health, safety or the environment if it was mismanaged. See 55 Fed. Reg. 11,806/1" *Association of Battery Recyclers v. U.S. Environmental Protection Agency,* 208 F.3d at 1050 (*Justice Ginsberg writing the decision for the court)* The TCLP scenario assumes the "co-disposal of toxic wastes in an actively decomposing municipal landfill which overlies a groundwater aquifer," 45 Fed. Reg. 33,110/3; this hypothetical landfill is composed of "5 percent industrial solid waste and 95 percent municipal waste," 51 Fed. Reg. 21,653/3; the toxic waste leaches unattenuated to the groundwater strata, see 45 Fed. Reg. 33,111/2; and the closest well for drinking water is 500 feet down gradient from the landfill. See id. In order to conduct the TCLP, the EPA first determines the composition of the waste sample. If the sample contains less than 0.5% dry solid matter, called the "solid phase," then the waste is filtered; the liquid passing through the filter is considered the TCLP extract and is analyzed to determine the concentrations of various chemicals. *See Office of Solid Waste, EPA, Method 1311, in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,*§§ 2.1, 7.3.15, 7.3.16 (3d ed. 1998) (EPA Publication SW-846). After applying a dilution and attenuation factor to simulate the diminution in concentration "expected to occur between the point of leachate generation and the point of human or environmental

15 *Thomas B. Phase 3 Report: Risk-Based Evaluation of Exploration & Production Wastes, Submitted to Louisiana Department of Natural Resources, Office of Conservation, Sept. 14, 2000.*

exposure," (Edison Electric, 2 F.3d 438, 441 (D.C. Cir. 1993), the EPA determines whether any of the resulting concentrations of certain chemicals are equal to or greater than the concentrations listed in 40 C.F.R. § 261.24, tbl. 1. If they are, then the waste is considered toxic and, consequently, hazardous. 40 C.F.R. § 261.24(a).

In pit testing conducted by Dr. Thomas, no waste type showed concentrations of the inorganic constituents in excess of the EPA allowable TCLP reference levels for non-exempt waste[16]. *See, Thomas B. Feb. 27, 2006 OCD power point discussion notes, page 4.* Note that the TCLP standard requires solubility of constituents as a means of achieving potential toxicity to plants, animals or humans. Thus, drill cuttings and natural material additives[17] used for drilling the wells and the majority of the 'waste' or mud in pits will almost never meet the hazard standards for TCLP. In addition, the TCLP assumptions of landfill directly over a water aquifer are conditions more similar to urban municipal waste regions in the Northeastern parts of the United States rather than the arid Southwest with little water, if any, at very deep well depths. As discussed by Dr. Thomas, of materials potentially in a pit, the only significant constituents are BTEX[18] or chloride from trace hydrocarbons in formation fluids. In the rare instance that formation fluids in the form of hydrocarbons are in a drilling pit, volatilization to the atmosphere and biodegradation will dissipate any BTEX or Gasoline-range organics while the chlorides are contained by engineering controls and the natural clays of the drilling mud. *Id, page 8.*

Dr. Thomas concluded his comments to the proposed pit rule by stating , "there is no need to remove pit contents and liners from drilling and work over pits at closure. The

16 Dr. Thomas discussed the possibility of contamination from other sources as a potential explanation for raised trace levels of Benzene.
17 The natural additives added to a drilling operation are starch, cedar chips and clay. Note that brine or salt water is used in the Southeast drilling operations while in Northwest New Mexico, fresh water is used for drilling. From the toxicity standpoint, the salinity of the brine will increase the levels of chlorides in the pit which will require a different closure standard.
18 BTEX made up of benzene, toluene, ethyl benzene and xylenes are defined as having a carbon range number of C6 to C10, and are the most 'light' and therefore toxic, volatile, water-soluble and environmentally mobile constituents of gasoline range organics GROs. The GROs may be in pits from drilling light crude oil or natural gas wells. *See Thomas, B. power point presentation, pg. 6.*

presence of clay within the pit has benefits for permanent closure in place. If closed properly, there is little regulatory need or benefit for analyzing residual concentrations of BTEX, or TPH[19] (of any type)". Thus, consideration of the best available scientific and technical information demonstrates that pit contents exhibit only trace levels of toxicity due to minimal amounts of formation fluid hydrocarbons in the pits, and these trace hydrocarbons are naturally eliminated by volatilization and biodegradation.

Dr. Lloyd Deuel, Jr., Chemist-Soil Analytical Services, Inc.

Dr. Lloyd Deuel Jr. has over 30 years of experience as a Soil scientist in field investigations involving environmental impact assessment of historic and recent oil and gas operations and other industries on land resources and development of restoration plans that conserve natural resources. Dr. Deuel currently serves as a 'Technical Advisor' to contractors developing on site remediation processes as alternatives to 'dig and haul' in association with the Texas abandoned oil and gas site restoration program. Dr. Deuel also is a Research Soil Chemist actively involved in evaluating alternative restoration procedures and processes including lime stabilization and bioremediation of petroleum hydrocarbon impacted soil, halophyte restoration of salt impacted soil, converting oil-field wastes into re-useable solid resources, and converting highly eroded, salt scalded landscapes into shallow surface water impoundments.

As a soil expert, Dr. Deuel focused his presentation on the explanation of the significance of salt parameters in drilling and work-over pits. Dr. Deuel claimed that the same factors that prevent hydration or that accumulate in native subsurface layers will not result in redistributions by capillary action or leaching. *See Deuel, L. Feb. 27, 2006 OCD presentation power point, pg. 3.* Salinity refers to the mineral constituents dissolved in water. There is a wide range of distribution and concentration of salinity in native soils and can be measured as electrical conductivity (EC) or salts in solution. Wells drilled in

19 TPH or total petroleum hydrocarbons were the primary topic of discussion on the Surface Waste Management Rule. Dr. Thomas maintained that there is no scientific basis for OCD's concern with total TPH numbers, the correct scientific method in EPA 8051B for measuring TPH is TPH-GRO for condensate and TPH-DRO for crude and drilling fluids.

Northwest New Mexico using fresh water will have significantly lower EC levels than Southeast wells that are drilled using saturated brine. Similar to research completed by Dr. Thomas, Dr. Deuel was able to quantitatively prove that a mud liner in a pit will prevent any leaching or passage of chlorides. Id. *citing, Deuel, L.E., and G.H. Holiday. 2000. SPE Int. Oil & Gas Conf. Beijing, China. SPE 64637.* According to the best scientific practices, salt will not migrate if the soil electro-conductivity (EC) and pit moisture are controlled; measures specific to each pit will dictate when soil EC or pit moisture parameters are exceeded. In addition, liners in pits are recommended only during operations for freshwater drilling pits underlain by shallow ground water of less than 20 feet. In the Southeast, regardless of water depth, the use of a liner during operations is recommended for brine-based drilling. Finally, contrary to the OCD proposed pit rule, the environment, fresh water and public health are best protected with the in place closure of pits with a minimum 3 foot soil cover for freshwater drilling pits and a 4 foot cover for brine-based pits.

Dr. Daniel Erskine, Maxim Technologies, Inc.

Dr. Erskine, an Albuquerque based scientist, examined the potential for impact of the current pit procedures on New Mexico ground water. According to Dr. Erskine, the typical operator in San Juan County will use PVC sheeting to line a pit that will be active for less than six months. Any excess fluids are recycled, evaporated or hauled to regulated disposal facilities, drill cuttings and solids are left in the pit to be dried by evaporation while clays in the pits will retain some moisture through capillary action. Dr. Erskine discussed the newest scientific findings that reverse traditional thinking in how moisture rises to the arid surface rather than migrating downward towards a water table. Xeriscape landscapes are able to pull moisture upward thru capillary action and surface tension. *See, Erskine, D., February 27, 2006 OCD presentation, power point p. 8-9.* Thus, of the very small amount to pit content water available, osmotic pressure, diffusion and chemical interactions will stabilize pit contents and therefore, 'in-situ' pit close will not impact fresh water, human health, safety or the environment.

The scientific findings and response to the proposed pit rule was that there is no need for a change to the current practices of pit closure. An in depth discussion of the contents of a pit reveals that there are no constituents that are hazardous, nor toxic as defined by the EPA in the TCLP testing modality. With the use of lined pits during operation, there is little risk of concentrations of saline migrating down in to the water table. In fact, remediation efforts through planting of native species will result in pulling moisture up towards the surface. It was emphasized that a full evaporation of the pit contents must occur thus the one year time period in the current rule is sufficient and should not be shortened as in the proposed rule. Thus, there are no quantifiable prior comments asking for a change in the current pit rule, indeed, the prior comments and scientific evidence demonstrates IPANM's current position that there is no science or valid economic analysis in support of a change in the Pit rule.

The complexities of the rule will severely impact small business entities

The third prong of the Small Business Regulatory Relief Act requires a review of the complexity of the proposed regulation or rule. First, there is substantial confusion as to the types of tanks the NMOCD will determine to be 'Below grade' since the new definition reads: "§19.15.1.7.B(5) *Below-grade tank ~~shall~~ means a vessel, excluding sumps ~~and~~ or pressurized pipeline drip traps, where a portion of the tank's sidewalls is below the surrounding ground surface's elevation."* Clarification is needed to ensure that a tank on a footing that may be below the elevation of the rest of the well location is not considered 'below ground'. Further, the need for lining and leak detection on all below ground tanks within 5 years of the implementation of the rule is unreasonable, not based on science and dependent on how below ground tank is defined, could be very costly to industry and ultimately, the State.

Other conflicts with statutes and even Constitutional principles have been reviewed in this document as well as in the Technical modifications document proffered by the New Mexcio Industry Committee. IPANM would adopt all legal discussions and arguments.

Further, IPANM intends to file legal briefings on the Constitutional Takings and violations of the Commerce Clause arguments by November 2, 2007.

The proposed Pit Rule poses potential violations of the Preemption clause

The Division's proposed rule improperly seeks to delegate the exclusive jurisdiction over oil and gas development to municipalities under NMSA 1978, § 3-27-3. However, Section 3-27-3 does not provide for local regulation of oil and gas development but only addresses the extraterritorial jurisdiction of municipalities for the purpose of acquiring, maintaining, contracting for, condemning or protecting its water facilities and water from pollution.

The legislature had delegated exclusive authority to the Division to over oil and gas development in the state in the Oil and Gas Act:

> The division shall have, and is hereby given authority over all matters relating to the conservation of oil and gas . . . It shall have jurisdiction, authority and control of and over all persons, matters or things necessary or proper to enforce effectively the provisions of this act or any other law of this state relating to the conservation of oil or gas[.]
>
> ***
>
> To that end, the division is empowered to make and enforce rules, regulations and orders, and to do whatever may be reasonably necessary to carry out the purpose of this act, whether or not indicated or specified in any section hereof. NMSA 1978 § 70-2-6, -11.

The Division's authority includes the power to make investigations and inspections, to make rules, regulations, and orders with respect the plugging of dry or abandoned wells; the power to require wells to be drilled and operated in such a manner as to prevent injury to neighboring properties; to regulate the methods and devices employed for storage of oil or natural gas; to restore and remediate abandoned well sites and associated production facilities, and to regulate the disposition of nondomestic wastes resulting from the oil and gas exploration, development, and production activities. *Id.*

In addition to the authority conferred by the Oil and Gas Act to regulate the conservation of oil and gas, several other statutes give OCD additional powers with respect to controlling water quality. The OCD is a "constituent agency" and member of the New Mexico Water Quality Control Commission. NMSA 1978 § 74-6-2-3. As such, it has been given an exclusive role in protecting the public health and welfare through the development of water quality standards for surface and ground waters and in preventing or abating water pollution. NMSA 1978 § 74-6-4 and 74-6-8.

Pursuant to this delegation of authority, the Division has issued extensive regulations which occupy the field and preempt any local regulation by municipalities or counties. Therefore, the provisions in proposed Rule 17 which purport to limit the location and siting of pits and the use of on-site closure methods on consent by a municipality are preempted, void and unenforceable.

Conclusion

The need for the revision of the current Rule 50 Pit Rule requiring excavation of the majority of temporary pits is not based on sound scientific principles. The additional outlay of transporting the pit contents including liners will cost industry thousands of additional dollars per well site, it will cost the public millions in lost state revenues due to deferred investments in future drilling programs resulting in less economic development. There will be drilling slow downs and increased operational costs – in the form of additional wear and tear on trucks and our infrastructure which is already taxed beyond the limit. The increased number of vehicle accidents resulting from hundreds upon thousands of man hours and vehicles hours on road is a direct impact on the health and safety of the citizens of the state. The proposed rule will also have the unintended consequence of releasing thousands of tons per year of green house gases from vehicle emissions and dust thereby severely affecting the health and public welfare of the citizens of New Mexico.

Finally, IPANM fully concurs with all economic and scientific arguments posed by Synergy Operating, LLC, Yates Petroleum and the New Mexico Industry Committee and would urge the Commission to consider all recommendations. Thank you for the opportunity to comment on this very important proposed regulation. I look forward to discussing all these issues and other at the upcoming proceedings.

Sincerely,

Karin V. Foster
Director of Government Affairs
IPANM