



GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Office of the Governor

CODY B. STEWART
Energy Advisor

SAMANTHA MARY JULIAN
Director, Office of Energy Development

August 23, 2013

Tommy P. Beaudreau
Acting Assistant Secretary
Lands and Minerals Management
U.S. Department of the Interior
Mail Stop 2134 LM
1849 C St. N.W.
Washington, D.C. 20240

Subject: *Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands; Proposed Rule Supplemental Notice, Volume 78 Federal Register 31636, May 24, 2013*
1004-AE-26

Dear Acting Assistant Secretary Beaudreau:

The State of Utah appreciates the opportunity to review the referenced supplemental notice of proposed rulemaking, and to assist the Bureau of Land Management (BLM) with the overall analysis of regulatory needs regarding the oil and gas production process known as hydraulic fracturing.¹ The state's review demonstrates, once again, that the BLM has failed to identify any requirements on federal lands which could not be met by use of the state regulatory program. If the proposed rules are adopted, operators will face a dual program of regulations for the same process, one on state and private land, and another on federal land. Adoption of the proposed rules will create an inconsistent, costly, and inefficient regulatory system which will provide no additional environmental protection or public safety than the programs enforced by the state.

The state appreciates the efforts of the BLM to fully inform the state of the purpose of the proposed regulations, including sponsoring a meeting for state representatives on August 14, 2013. John Baza, Director of the state's Division of Oil, Gas and Mining was in attendance. Unfortunately, this meeting can be considered no more than yet another information session, because BLM was not prepared to resolve or even seriously discuss the substantive issues set forth below. The state is ready at any point, before these proposed rules are finalized, to work with the BLM to produce an efficient and comprehensive program for the approval, drilling and operation of oil and gas wells.

¹ The state also incorporates by reference all comments submitted by the state in response to the initial proposed rule, which was published in the Federal Register on May 11, 2012.

The Western Governors' Association recently sent a letter, dated August 15, 2013, to Secretary of the Interior, Sally Jewell, asking important questions about the BLM's intent with these proposed regulations. The State of Utah incorporates those questions, which are similar to points raised in these comments, into this letter, and requests an answer to each question as part of the response to these comments.

As discussed below, the state requests BLM defer to, adopt, or in some other appropriate manner insure, that the state's regulatory requirements related to 1) construction of oil and gas wells, 2) operations related to hydraulic fracturing, 3) management of flowback fluids, and 4) disclosure of chemicals, become the BLM's regulatory requirements as well. One set of standards and requirements for these operations in the geologic environment of Utah will provide for the protection of the environment and responsible development of energy resources. The state specifically agrees with the BLM's choice of FracFocus as the forum to disclose chemicals and other substances used in hydraulic fracturing procedures. The state understands the sponsors of FracFocus are reworking the site, in order to accommodate some usability issues. The state requests BLM adhere to this proposed decision.

Hydraulic Fracturing and the Need for Regulation

Hydraulic fracturing is a practice which has been in use in the oil and gas industry for many years. BLM specifically recognizes that hydraulic fracturing is a "common and accepted practice" which has been part of oil and gas production operations "for decades."² The BLM also correctly notes that technological advances in horizontal drilling procedures, in concert with the long-standing well stimulation technique of hydraulic fracturing, has caused production of oil and gas from very dense and low-permeability rock known as shale oil to become economically feasible. This, in turn, has caused the expansion of oil and gas activities into new parts of the country – primarily parts of the country where the land is predominantly owned by private parties.

This movement of drilling into new parts of the country has generated public controversy. BLM states that "public awareness of hydraulic fracturing and the potential impacts that it may have on water quality and water consumption,³" is driving the need for adequate safety regulations from the BLM.

As a result of these, and other expressions of public concern, the BLM asserts that the proposed regulation is necessary to provide regulatory oversight related to 1) the contamination of underground water sources, 2) the disclosure of the chemicals used in fracturing operations, 3) the assurance of the structural soundness (integrity) of the well and well-bore and 4) the assurance of proper disposal of the fluids which return to the surface.⁴ The BLM specifically asserts that the rule is "designed to reduce the environmental and health risk that can be posed by

² See 78 FR 31638.

³ Id.

⁴ See 78 FR 31636.

hydraulic fracturing operations,” by addressing “flowback fluids, well construction, and hydraulic fracture design.”⁵

The Functional Equivalence of State Regulatory Authority

The BLM does not believe that the states provide an adequate source of regulatory authority for the issues posed by hydraulic fracturing which BLM has identified (See above). According to the BLM, the state regulations are inadequate because state regulations are “not uniform” among the various states, especially in the area of the public disclosure of chemicals used.⁶ Furthermore, the BLM asserts that “the States are not legally required to meet the stewardship standards applying to public lands.”⁷ These stewardship standards are further defined to include 1) the BLM’s duty under the Federal Land Policy and Management Act (FLPMA) to “prevent unnecessary and undue degradation” of the lands, and 2) the duty to manage the public lands according to the principles of multiple-use and sustained-yield.”⁸

The State of Utah respectfully disagrees with these expressions of BLM and state authority. The state specifically requests BLM analyze existing state regulations in light of the state’s goal to protect the environment, while allowing development of our natural resources. The BLM and the state’s regulations are designed to achieve the same purpose, thus the state’s regulations are the functional jurisdictional equivalent of the BLM’s.

Specifically, the BLM is apparently mixing the requirements of two different regulatory processes in order to conclude the state cannot provide proper regulation of fracturing. On the one hand, the BLM is required to plan for the use of the public lands, through the allocation of the various resources such as recreation, timber, wildlife, and mineral production. On the other, the BLM is required to manage the production, use, or protection of those resources once the decision is made to allow them in any particular area.

The proposed rule would become, if adopted, regulatory authority over the operation of any oil and gas well which may be the subject of a hydraulic fracturing operation. Any proposal to drill a well and use hydraulic fracturing, *a priori*, requires that the BLM, through use of the planning requirements of FLPMA, has allocated the area to oil and gas operations and executed a lease for the same. The proposed fracturing regulation does not require the exercise of the multiple-use requirements of FLPMA, only the requirement to prevent unnecessary and undue degradation due to the operations of a hydraulic fracturing process. In this regard, the state and the BLM have identical purposes – the prevention of pollution of the environment, the prevention of waste of the resource, the transparency in the use of chemicals, and the proper handling of the flowback fluids (*i.e.*, no pollution).

The state’s regulations are designed to achieve the same result as the proposed BLM regulations, that is, to “protect the quality of [the land’s] resources, including ecological, environmental and water resources.”⁹ With a common purpose recognized, the difference in

⁵ See 78 FR 31637 and 31641.

⁶ See 78 FR 31637.

⁷ See 78 FR 31640.

⁸ See 43U.S.C. Section 1701(a).

⁹ See 78 FR 31640.

statutory authority become irrelevant. The state requests that BLM recognize the functional equivalence of the state regulatory requirements, as the state regulations, even though based on a different statutory framework, also prevent unnecessary and undue degradation of the lands.

BLM also cites a report from the Department of Energy to the effect that the public should receive more information about the chemicals used in the hydraulic fracturing operations, strict standards of well-bore construction should be required, and that high pressure testing of every well should be required to assure well-bore integrity.¹⁰ This report does not provide any support for the need for these, or any other regulations by the BLM, beyond those state requirements already in place.

The Need for Efficiency and Simplicity in Regulation Related to Well Integrity

There is no question that the practice of hydraulic fracturing must be regulated in order to assure protection of the environment. However, the proposed required regulatory structure is but one step in the many steps required to drill, complete, and produce oil and gas from a well. The regulatory structure must account for all of these steps, and allow the operators to meet the requirements at minimal expense.

In this light, the proposed regulation differentiates between hydraulic fracturing and other well stimulation activities, such as acidizing, thermal stimulation and similar fluid flow operations. The basis for this clarification is that the hydraulic fracturing process requires higher pressure, within the structure of the well-bore, than the other liquid flow procedures. Therefore, in effect, the portions of the proposed regulation dealing with the proper construction (integrity) of a well proposes to focus on one fluid operation, involving high pressure, out of an entire series of steps covering the drilling, stringing of pipe, cementing, and fluid stimulation operations, for specific treatment by federal and state agencies.

The BLM's final regulations must provide for the permitting of hydraulic fracturing in an efficient manner, and must be considered as an integral part of the overall permitting process. The state is prepared to create such a regulatory scheme with the BLM as discussed next.

Variance from BLM Regulations

The state appreciates the BLM's proposal to allow an operator to seek a variance from the requirements of the regulation, as outlined in proposed Section 3162.3-3(k). However, the state requests the BLM reconsider the basic structure of the variance process, and evaluate an alternate structure whereby the state can seek a variance from the BLM for the regulation of hydraulic fracturing for the entire state, or perhaps a region of the state.

On-the-ground results within Utah are as effective as or likely more effective than the proposed regulations. The current regulations provide sufficient flexibility to allow for a petroleum engineer or geologist to make specific findings on wellbore design, fracture design, and water management based on regional, field, unit, and site specific variations and conditions.

¹⁰ See "Shale Gas Production Subcommittee Second Ninety-Day Report," Shale Gas Production Subcommittee of the Secretary of Energy Advisory Board, issued November 18, 2011.

Using this flexibility, a state-based variance would allow the state regulations, which have the same goal as the proposed federal regulations, to become the operative controls for hydraulic fracturing on private, state and federal lands, thus providing the industry with the necessary regulatory certainty.

The revised variance regulation should reference Utah's governing law and regulations, which are the Utah Oil and Gas Conservation Act, Utah Code Title 40 – Chapter 6 and the Utah Oil and Gas Conservation General Rules, specifically R649-3-39. Hydraulic Fracturing is found at http://oilgas.ogm.utah.gov/Rules/Rules_Page.htm

The state is ready to discuss the establishment of the operational parameters of such a variance program before the BLM finalizes any regulations, as the variance section of the regulation should be amended to allow for this possibility. The state is prepared to discuss all aspects of the program, including funding.

The Cost of the Necessary Staff

The BLM needs to recalculate the “Cost to the BLM to Maintain Capacity” presented in the accompanying Economic Report. In Utah, much of the oil and gas effort is centered in the Vernal Field Office. As of May 2013, the Vernal Field Office has 30 vacancies and 1350 backlogged Application to Drill Permits (APDs). In 2012, there were approximately 775¹¹ federal and tribal wells drilled in Utah. Using BLM's estimate of eight (8) hours per Sundry Notice, and assuming one (1) Sundry Notice per well,¹² BLM needs to employ three (3) Full Time Equivalents (FTE)¹³ in the Vernal Field Office alone to administer the proposed regulation. Recent job openings for engineering and geologist positions in the Vernal Field Office have generated only two (2) candidates from outside the Field Office. Hiring additional employees is not a trivial task in the Vernal Field Office.

The inability to maintain a trained workforce has a significant impact on workflow through the office. Three FTE will cost the Vernal Field Office approximately \$59,200¹⁴ per FTE – totaling \$177,500 plus per year. This unfunded cost to maintain capacity comes at a time when the BLM is dealing with the uncertainty of the termination of the Permit Processing Improvement Fund in FY 2015. The Permit Processing Improvement Fund supports 43 positions in the Vernal Field Office, roughly one-third (1/3) of the office. The lack of employees directly relates to delays in the issuance of permits, which, in turn, drives industry to states and geologic plays with more private land and faster permitting times. Of course, in those areas with private lands, hydraulic fracturing is regulated by the states.

¹¹ Utah Division of Oil Gas and Mining (http://oilgas.ogm.utah.gov/Statistics/Well_counts.cfm, accessed August 8th 2013).

¹² One Sundry Notice per well is employed because of the lack of clarity on how type wells will be determined, and the exact details concerning BLM coordination with the states. The estimate also assumes every well in Utah employs a hydraulic fracturing procedure. In any event, the proposed rule must anticipate that some governmental entity, BLM or the state, will be required to expend these costs.

¹³ Seven hundred seventy five (775) drilled wells at 8 hours per well divided by 2080 hours per person-year equals 2.98 FTE (Full Time Equivalent).

¹⁴ See page 45 of BLM's Economic Analysis. One FTE at \$28.45 per hour multiplied by 2080 hours per person year equals \$59,200. This does not include employee benefits.

The state of Utah has calculated that in the Uintah Basin, composed of Uintah and Duchesne Counties, and the largest producer of oil and natural gas in the State, sixty (60) percent of the economy is directly related to the oil and gas industry.¹⁵ Increased costs of regulation, through more requirements and more delays caused by less staff, lead to a reduction in activity, which will have huge economic ramifications throughout Utah's economy, and the Utah's tax base - far beyond the cost per well.

The Benefits and Costs of the Proposed Regulations

The State of Utah has a number of issues and concerns about the validity and accuracy of the BLM Economic Analysis and the calculation of benefits derived from the regulations. While the benefits of this rule are highly questionable the costs of this rule are estimated to be \$97,000 of direct costs per well or approximately \$75 million dollars per year in Utah.¹⁶

The state asserts that the expected benefits from the proposed regulations are nil, because the practice is already sufficiently covered. In previous comments, the state has demonstrated that current practices have resulted in zero instances of environmental damage related to the integrity of a well undergoing a hydraulic fracturing operation. The record constitutes thousands of wells. In contrast, to support its position, the BLM identifies one example of an event tied to the practice of hydraulic fracturing.¹⁷ However, this one event would not have been prevented by any of the areas addressed by the proposed regulation, including the provisions concerning disclosure, appropriate construction standards, and managing flowback water, therefore, the proposed regulation would not prevent similar events from happening in the future.

In addition, the BLM's discussion concerning the likelihood of a minor incident associated with hydraulic fracturing acknowledges being a qualitative discussion, not a rigorous quantitative analysis of the risks associated with hydraulic fracturing. The state requests BLM produce a quantitative analysis, or simply disclose that such a quantitative analysis is not possible under current knowledge, and not substitute for an unrelated conceptual analysis.

The BLM's discussion of the framework of benefits states "risk is the product of the likelihood of an incident occurring and the impact that will be incurred." This definition should be clarified. Risk is the product of the probability of an event occurring and the magnitude of the expected loss. In Utah, the long history of regulation of hydraulic fracturing demonstrates that the risk of a major loss, or even a minor one, is extremely low.

As a proxy for information on problems related to hydraulic fracturing, the BLM proposes to employ facts from compilations of other drilling and completion activities which

¹⁵ See The Structure and Economic Impact of Utah's Oil and Gas Exploration and Production Industry prepared by the Bureau of Economic and Business Research, University of Utah. This report may be accessed at http://governor.utah.gov/publiclands/PLPCOSTudies/Oil%20&%20Gas%20Economic%20Impact_July.pdf

¹⁶ Based on cost analysis in the Business Impact of Revised Completion Regulations prepared by John Dunham. See <http://westernenergyalliance.org/wp-content/uploads/2013/07/Final-Economic-Analysis-of-the-BLM-Fracing-Rule-Revision.pdf>. (775 federal and Indian wells times \$97,000 per well = \$75 Million)

¹⁷ The Carlsbad Field Office submitted an Initial Report for the major undesirable event, occurring on lease NMNM0631.

lead to violations. The BLM cites a report¹⁸ to the effect that violations in certain categories (“fracturing, groundwater contamination, surface spill of fracturing fluid”) represent 2.7% of total oil and gas violations.

This report does not appear to substantiate those figures. The report discusses seventy-seven (77) violations over 11 years (2000-2011), two of which were related to hydraulic fracturing, and only one of which is a complaint. This study further concludes that the information collectively

“present[s] little or no evidence of groundwater contamination from hydraulic fracturing of shales at normal depths... No evidence of chemicals from hydraulic fracturing fluid has been found in aquifers as a result of fracturing operations... None of the water well claims involve hydraulic fracturing fluid additives, and none of these constituents has been found by chemical testing of water wells.”¹⁹

From a more complete reading of this report, cited by BLM as an economic rationale for the proposed regulations, the state infers no measureable (0.01 %) benefit from adoption and implementation of the proposed regulation.

The BLM’s economic analysis then restates this inaccurate analysis repeatedly,²⁰ stating that “we estimate that the likelihood of an incident resulting from a hydraulic fracturing operation [to] be between 0.03 and 2.70 percent.” The state requests this faulty analysis be corrected. In addition, the state requests a full explanation of the calculation of the likelihood of a major incident associated with hydraulic fracturing, which the BLM simply asserts to be 1/3566, without any evidentiary support.

For this reason, the state again asks the BLM to drop the proposed regulation, because it provides absolutely no benefit to the environment beyond that derived from practices already in place.

Specific Comments

As part of the review of the proposed regulations, the state has identified the following specific issues:

A. §3160.0-5 Definitions - Usable water.

The state believes that the definition of useable water is unnecessarily inclusive of water sources found at depth. The definition provides for inclusion of many water sources, and includes, as a catch-all, all water zones containing up to 10,000 ppm of total dissolved solids, unless otherwise specifically excluded.

¹⁸ *Fact-Based Regulation for Environmental Protection in Shale Gas Development* by the Energy Institute at the University of Texas at Austin. See <http://s3.documentcloud.org/documents/535564/original-energy-institute-fracking-report.pdf>, accessed August 8th 2012.

¹⁹ Ibid

²⁰ See p 64 and 75 of the *Economic Analysis for Hydraulic Fracturing Rule*, and p 31666 of Volume 78 of the *Federal Register*.

The localized geology of Utah dictates that hydrocarbon development will be in deeper horizons. Statewide statistics indicate that less than two percent (2%) of all wells drilled annually are less than 1,000 feet in depth. In 2011, only three and a half percent (3.5%) of wells were drilled to depths less than 5,000 feet. Because usable groundwater resources are generally less than 1,000 feet in depth, deeper oil and gas well horizons greatly minimize the potential for problems stemming from oil and gas operations, including hydraulic fracturing.

The state is concerned about the necessity, costs, and additional time to exempt aquifers that are essentially unusable because the depth of the water makes it uneconomic to recover.

B. Section 3162.3-3 Subsequent Well Operations; Hydraulic Fracturing.

(d) What the Notice of Intent Sundry Must Include.

The draft regulation states that if information submitted in accordance with State laws or regulations meets the BLM standards, then that information may be submitted to the BLM as part of a Sundry Notice. The BLM must clarify the nature and scope of these standards.

(e) Monitoring of Cementing Operations and Cement Evaluation Log Prior to Hydraulic Fracturing.

The state appreciates the flexibility proposed in the regulations though the concept of the type well.²¹ However, the state requests BLM provide further clarification about the application of the proposed concept.

1. The proposed regulation provides for a type well as a representative for many other wells within a geologically similar oil or gas field. If the geology and drilling methods are similar for all the wells, can one type well to represent hundreds of wells drilled and fractured within five years in the same field? In order to make use of the type well, do all necessary Sundry Notices have to be submitted at the same time?
2. Will each BLM field office have the additional technical staff to review and approve the type well Notice in a timely manner?

(h) Storage of all recovered fluids in tanks or lined pits.

The BLM is specifically requesting comments on whether the rule should allow flowback fluids to be stored in lined pits, or whether closed tanks are necessary. The state believes regulatory flexibility is best, and that local site-specific conditions should be used in such a decision. Some situations allow for piping fluids from several well sites to a common pond, at which point conditioning and cleaning is conducted for fluid re-use. Centralizing flowback operations may allow greater water reuse; reduced truck traffic for fluid tank transport; and lessen on-site pad space restrictions. However, the choice between pits or tanks must be left to site-specific analysis.

²¹ See, e.g., p 31645.

- (i) *Information that Must be Provided to the Authorized Officer After Completed Operations.*

(1) The state has a hydraulic fracturing chemical disclosure requirement that includes FracFocus submittals. This is duplication in rules that could easily be avoided by simply deferring to the functionally equivalent state rules stated at the beginning of Subpart 3162.

Conclusion

The state appreciates the opportunity to review the proposed regulations, and again requests the BLM stop the promulgation of these unnecessary regulations. Because the BLM and the state have, in fact, a common purpose related to the regulation of hydraulic fracturing, and that the legal framework for this regulation is functionally equivalent, the state formally requests BLM immediately initiate discussions designed to create a seamless, efficient, and cost-effective regulatory program in partnership with the state. This partnership would properly regulate the practice of hydraulic fracturing, as well as all the other facts of the exploration for and production of oil and gas resources.

Please feel free to call me at (801) 538-1039 with any further questions or concerns.

Sincerely,



Cody Stewart
Energy Advisor to the Governor