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U.S. Department of the Interior
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**RE: 1004-AE26 (78 Fed. Reg. 31,638, May 24, 2013)
Comments by ANGA and AXPC to BLM's Revised Proposed Rule;
Oil and Gas; Fracturing on Federal and Indian Lands**

Dear Mr. Kornze:

America's Natural Gas Alliance ("ANGA") and the American Exploration & Production Council ("AXPC") (together, the "Associations") thank you for the opportunity to comment on the Bureau of Land Management's ("BLM's") revised proposed rule entitled "Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands" ("Revised Proposed Rule"). These comments will focus on the issues directly related to the content of the Revised Proposed Rule.¹ The Revised Proposed Rule improves upon BLM's initial proposal, and the Associations recognize BLM's efforts to reflect many of our suggested revisions in the Revised Proposed Rule. Nevertheless, the Associations remain concerned about numerous aspects of the Revised Proposed Rule, which are discussed herein. The Associations offer these comments in the event BLM chooses to disregard our most fundamental position—that the current suite of state and federal regulations and oversight that govern development on federal lands is adequate and protective of the environment, negating the need for this rule.

ANGA is an educational and advocacy organization formed by North America's leading independent natural gas exploration and production companies. ANGA represents 26 of North America's largest independent natural gas exploration and production companies and the

¹ ANGA and AXPC hereby incorporate by reference, in its entirety, the September 10, 2012 comment letter submitted by ANGA, AXPC and the U.S. Oil & Gas Association on BLM's original proposed rule, published at 77 Fed. Reg. 27,691 on May 11, 2012.

leading developers of the shale plays now transforming the clean energy landscape. Many of ANGA's members have significant lease holdings on federal lands and are keenly interested in the Agency's efforts to revise its Onshore Oil and Gas Rules and Orders. ANGA is dedicated to increasing appreciation for the environmental, economic and national security benefits of clean, abundant, affordable and dependable natural gas.

AXPC is a national trade association representing 32 of America's largest and most active independent natural gas and crude oil exploration and production companies. AXPC's members are "independent" in that their operations are limited to the exploration for and production of natural gas and crude oil. Moreover, its members operate autonomously, unlike their fully integrated counterparts, which operate in additional segments of the energy business, such as downstream refining and marketing. AXPC's members are leaders in developing and applying the innovative and advanced technologies necessary to explore for and produce crude oil and natural gas, and that allow our nation to add reasonably priced domestic energy reserves in environmentally responsible ways.

The Associations have members with extensive lease holdings on federal and Tribal lands and thus have a strong interest in the requirements of BLM's Revised Proposed Rule. The Associations and their members continue to urge BLM to respect the existing balance of federal and state regulation of oil and gas development activities. Current regulation of oil and gas activities, including those involving hydraulic fracturing on federal lands, whether through state regulation of oil and gas operations, state environmental regulation, or existing federal regulatory requirements (*e.g.*, well integrity and produced water management requirements in Onshore Order Nos. 2 and 7, respectively), effectively protects the environment, the public, and our nation's resources.

The Associations share BLM's goals of ensuring environmental protection and enhancing public understanding of hydraulic fracturing. Given the existing robust regulatory frameworks in place under state laws and BLM's own regulatory program, however, an additional set of federal regulations is not a sound way to advance those goals. Like BLM's 2012 proposal, the Revised Proposed Rule would still lead to uncertainty, confusion, longer delays, potentially conflicting requirements, and, in some instances, a decrease in the development of resources on federal lands. Despite the improvements upon the 2012 proposal, the Revised Proposed Rule still would not meaningfully benefit the environment or the public. Finally, the Associations oppose the imposition of any largely duplicative and unnecessary requirements on this critical domestic energy development given the fact that the public already enjoys the benefits of safe and responsible development on federal lands due to existing federal and state rules and oversight, as well as the vigilance and commitment of industry.

Given the importance of the subject of this rulemaking, the Associations welcome further dialogue with BLM throughout the remainder of the rulemaking process to address the various issues raised below and in other comments. The Associations also urge BLM to continue dialogue with the states, in advance of finalizing the rule, to develop appropriate methods for deference to state regulation.

I. BLM Should Defer to State and Tribal Standards or Requirements Where Current Regulations are in Place, and Rely on Industry Best Practices When Finalizing its Rule

BLM indicates that it “has revised the initial proposed rule to avoid duplication with State requirements.”² Elsewhere in the preamble to the Revised Proposed Rule, BLM seeks the public’s views “on whether there are other opportunities in the revised proposed rule to incorporate or to defer to State or tribal standards or requirements.”³ The Associations acknowledge BLM’s attempts to avoid duplication of state requirements and urge BLM to do more in that respect. In particular, BLM should defer to those states with existing regulatory frameworks governing hydraulic fracturing operations and avoid imposing largely duplicative federal requirements.

A. The States Currently Effectively Regulate Hydraulic Fracturing Effectively

1. Before Proposing New Federal Rules, BLM Should Identify a Gap in State Regulation Justifying the Finalization of Different, Sometimes Contradictory Proposed Federal Regulation

The Associations primarily would like to draw BLM’s attention to the adequate state regulation currently in place and administered in the states that BLM manages oil and gas wells. The states of Alabama, Alaska, Arizona, California, Colorado, Louisiana, Mississippi, Montana, Nevada, North Dakota, New Mexico, Ohio, Oklahoma, South Dakota, Texas, Utah, and Wyoming account for greater than 98% of the wells drilled on federal lands in fiscal year 2012. These states individually have amended their regulations within the past two decades, and all but Alabama and Arizona have done so in the last three years, to better address oil and gas development using hydraulic fracturing.⁴ Given that each of these states effectively regulates oil and gas development using hydraulic fracturing, these proposed regulations are unjustifiable; they provide tremendous additional cost to industry⁵ and to the federal government with no resultant environmental benefit.

² 78 Fed. Reg. at 31,644.

³ *Id.* at 31,640.

⁴ For a more detailed discussion of the existing state regulatory landscape, BLM may refer to the comments to the Revised Proposed Rule prepared on behalf of the Independent Petroleum Association of America.

⁵ For example, a recent study prepared for Western Energy Alliance and the Independent Petroleum Association of America estimates that the Revised Proposed Rule will impose an annual cost to society of approximately \$345 million. See Western Energy Alliance, “BLM Fracing Rule Imposes \$345 Million Cost to Society (July 22, 2013), *available at* <http://www.westernenergyalliance.org/press-room/blm-fracing-rule-imposes-345-million-cost-society-0>; see also Memorandum from John Dunham & Associates, to Kathleen Sgamma,

(continued...)

The Associations recognize BLM's efforts to revise its initial proposal to provide for more deference to state and tribal standards or requirements. However, the Proposed Rule remains needlessly duplicative of state requirements, does not go far enough in terms of deference, and does not identify a regulatory gap where there are currently no state regulations in place.⁶ Where states have regulations in place governing well construction, chemical disclosure, and water management, BLM should defer completely to those regulations. The Associations endorse the use of memoranda of understanding ("MOU") as a means to allow for deference to state regulations and to streamline procedures. As explained in detail in our prior comments,⁷ oil and gas operations are better addressed at the state level, as states generally have a better understanding of local geology, hydrology, and other relevant conditions. A one-size-fits-all federal rule that largely duplicates existing state regulations therefore is improper.

2. *BLM Should Defer to State Regulations Through MOUs or Comparable Mechanisms, not Through the Proposed Variance Provision (§ 3162.3-3(k))*

BLM should allow for deference to state regulations and requirements by including a provision in the Revised Proposed Rule that authorizes and encourages MOUs between BLM and states, rather than relying on the proposed variance provision. Under the proposed rule, operators would need to rely on the variance provision with respect to a large number of wells drilled on federal lands. As an example, operators would need a variance 100% of the time with respect to the application of certain requirements of the Revised Proposed Rule to wells drilled before the effective date of the rule because compliance would be impossible.⁸ That is *not* how properly crafted rules and variance provisions should work. Variances should be the exception, not the norm. Extensive reliance on a variance provision only highlights the deficiency of the underlying policy and execution. Rather than include a variance provision in the Revised Proposed Rule under which, the "exception would swallow the rule,"⁹ BLM should

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Western Energy Alliance, "Business Impact of Revised Completion Regulations," (July 22, 2013), available at <http://www.westernenergyalliance.org/wp-content/uploads/2013/07/Final-Economic-Analysis-of-the-BLM-Fracing-Rule-Revision.pdf>.

⁶ In addition to identifying gaps where there are no state regulations in place, BLM should also identify gaps in its own regulatory scheme before proposing and finalizing new regulations.

⁷ See, e.g., ANGA *et al.* Sept. 2012 Comment Letter, at 3-9, for a lengthy discussion on this subject.

⁸ See Section III.B *infra*.

⁹ See *Ass'n of Oil Pipe Lines v. FERC*, 281 F.3d 239, 244 (D.C. Cir. 2002) (explaining that a relief mechanism such as a variance "cannot rescue [an agency's] methodology from systemic errors, for then the exception would swallow the rule").

instead defer to the extensive body of state regulations through MOUs or some comparable mechanism. Not only is such an approach more legally defensible, it is better public policy and offers industry regulatory certainty. The term “variance” can also create the unwarranted impression that oil and gas operators are not in compliance with regulations, when in fact they are. The variance process also leaves BLM in the position of defending challenges from the public, because some members of the public who are generally unfamiliar with oil and gas permitting processes and existing state and federal regulations could perceive “variance” to mean BLM approval of industry non-compliance. This not only would significantly damage the public trust of BLM, it could result in reduced development and investment on federal lands by the Associations’ members, as the negative public relations ramifications for operating under an umbrella of presumed non-compliance are legion.

In the preamble to the Revised Proposed Rule, BLM refers to an existing memorandum of agreement (“MOA”) with the State of Colorado that could be amended or updated to reflect the expectations and responsibilities of each Agency assuming that the standards of the State’s hydraulic fracturing rules meet or exceed those of the BLM rule.¹⁰ While the Associations agree in principle with BLM’s suggestion to rely on MOUs or MOAs as a means of achieving deference to state regulations, the Revised Proposed Rule does not sufficiently achieve that goal. For starters, such MOUs or MOAs should govern regardless of whether state regulations “meet or exceed” those of the BLM rule. Moreover, BLM offers no direction on how such a memorandum can be established and implemented, nor does it provide an example of BLM-approved MOA language/format that can readily be used by states or tribes to coordinate their respective regulatory programs. Thus, it is not clear how or when BLM will allow an MOA to be used to avoid duplication between BLM and State rules and possibly allow BLM to adopt all or part of a State or tribe’s regulatory program to permit and oversee oil and gas operations. Before finalizing any rule, BLM should provide further guidance on how to put in place MOUs and MOAs that would allow BLM to recognize, adopt and utilize existing State or tribal regulatory programs. The Associations recommend that BLM initiate dialog with the states immediately on this topic, as MOUs could further negate the need for BLM’s rule.

Should BLM insist upon retaining the proposed variance provision, it should significantly revise that provision. The “meets or exceeds” standard in the current proposal (§ 3162.3-3(k)(2)) is not sufficient to avoid duplication with state requirements. BLM’s proposed rule does not clearly define how a state or tribe can meet this “meets or exceeds” standard. If BLM truly desires to honor its stated commitment to avoid unnecessary duplication, provide consistency, and offer regulatory certainty, then BLM needs to offer a means—prior to finalizing the proposed rule—for state or tribal programs to be recognized, adopted, and utilized in fulfilling as many regulatory aspects associated with permitting, operational oversight and reporting as possible. Apart from being inherently difficult to apply, practically and politically, such a narrow “meets or exceeds” standard reduces the likelihood that variances will

¹⁰ See *id.* at 31,644-45.

be granted. Thus, operators of wells on public lands would have to comply with two or more sets of overlapping requirements. This would frustrate BLM's mandate to foster responsible recovery of resources on public lands because it will incentivize a preference for development and investment on private lands. Given that state regulatory agencies have a long, successful history of regulating oil and gas development on their lands, BLM should revise the proposed rule to clarify that federal requirements will only apply to those states that do not have regulations governing well construction, chemical disclosure, and water management.

BLM should not promulgate any final regulations without providing the necessary guidance to allow either operators or states and Tribes to show that existing regulatory programs satisfy or exceed BLM's proposed hydraulic fracturing regulation. Furthermore, BLM needs to consider how its current database systems used to track drilling permits can be modified to meet its future needs under its proposed hydraulic fracturing regulations and be better integrated with state or tribal databases that are already in place for permitting, inspection, and reporting to avoid unnecessary duplication and to streamline data management and sharing, as well as the approval process.

BLM also indicated in the preamble to the Revised Proposed Rule that the variance provision can only apply to "operational activities" under the rule and not the "actual approval process."¹¹ BLM needs to clarify what "operational activities" encompasses. If BLM retains the variance provision in the final rule, it should expand that provision to also apply to administrative aspects if a state or tribe is willing to enter into a MOU or MOA to eliminate or reduce redundancy between state or tribe and BLM well permitting requirements. This would allow BLM to recognize, adopt, and utilize all or part of a state or tribe's regulatory programs, including administrative (*i.e.*, permitting and reporting) and not just operational requirements for managing hydraulic fracturing operations on public or tribal lands.

Finally, the Associations note that it is improper for BLM to reserve the right to rescind variances for "other reasons" in § 3162.3-3(k)(4).¹² Such authority is far too open-ended. Should the variances process remain in the final rule, variances should only be subject to rescission or modification under a defined set of circumstances. This is in the best interests of both the operator, in terms of regulatory certainty, and the regulator, so as to avoid any potential of perceived prejudice or differential application of regulations.

B. BLM Should Defer to State Designations of Usable Water

The revised definition for "usable water" (proposed § 3160.0-5)—which will apply to all onshore oil and gas wells, not just wells that will be hydraulically fractured—and the proposed procedures to identify and protect potentially usable water have unfortunate

¹¹ 78 Fed. Reg. at 31,660.

¹² *See id.* at 31,677.

consequences. They significantly increase the risk that already protected genuine fresh, drinking water will be contaminated and comingled in uncontrolled open well bores with water that is of lower quality. Absurd scenarios will become possible, scenarios that current regulations have successfully prevented for many decades. Clearly, it is imprudent to consider water having TDS values greater than 3000 mg/liter and up to 10,000 TDS of equal value to precious fresh water that requires no treatment for drinking or agricultural use. The Associations trust BLM never intended such an outcome from an administrative definition and that BLM understands that all fluids within the well bore are adequately isolated from groundwater of all qualities by multiple layers of protection defined in existing state and federal requirements. The relatively greater and appropriately managed risk to state water resources occurs during drilling operations, and the comments below articulate how the BLM's proposed rules could in fact increase said risk.

The definition of "usable water" directly impacts not only what is protected but also how it is protected. State drilling regulations nationwide are based on a simple principle that cemented casing protects water resources, including during short term drilling and completion operations, as well as long term production operations.¹³ States require that casing must be set at pre-determined depths, or within specific geological units known to isolate fresh water resources. Conceptually, the permitted depth is some minimum distance below the lowest expected occurrence of fresh water resources based on regional mapping or knowledge. Historically, states have embraced the position that protection of fresh water cannot be compromised by efforts to protect hypothetical deeper water resources especially if they have no obvious economic value. Furthermore, to minimize contamination risk, states encourage operators set surface casing as quickly as possible, and drill with fluids or air that will not risk the quality of the water.

Unlike BLM's proposed rules, no state requires or even suggests acquiring open-hole logs on production wells to identify usable water before surface or other casing strings are set (and cemented). There is no unwanted or unnecessary delay to evaluate water quality, and no ambiguity about the eventual maximum depth or geologic intervals for casing. It is a corollary of redefining usable water to 10,000 TDS that much deeper open-hole wells will be drilled as a matter of routine. Longer well bores could immediately risk contamination of shallower fresh water by poor quality water. Many farmers in the western U.S. are familiar with this concept when they drill a water well too deep and find it salted out. Should the practice become the norm, then areas with dense new drilling could expose aquifers to completely unnecessary risk. With the added layers of testing and logging for the benefit of science comes an increase in

¹³ Moreover, BLM appears to acknowledge that intermediate casing can also be used to protect usable water and resources. The preamble to the Revised Proposed Rule indicates that the rule "has a provision to conduct CELs on the casing strings that protect usable water. The applicable casing strings include the surface casing and sometimes the intermediate casing." 78 Fed. Reg. at 31,662.

exposure time for an open borehole before it gets mitigated by setting surface casing. The states have a clear understanding regarding the difference between operational regulations and research, and we request BLM seek to understand these differences as well.

In addition, drilling experience clearly shows that that shallow zones in wells often have highly friable or unconsolidated sediments that easily collapse. When this happens in an open hole it risks leaving some open communication pathway flowing in deeper parts of the well and inevitably requires expensive operational remedial actions.

Geologists and hydrologists recognize that well cuttings provide some of the most important lithological information for water bearing formations, although they are of little value for establishing water quality at a particular depth.

Simplistic definitions of usable water make no sense in areas where brackish waters exist at significant depths and may fill reservoirs within or below oil and gas production intervals. Examples are well known in the western U.S. intermontane basins. BLM oil and gas experts are no strangers to this fact, and we encourage BLM to consult with its own internal experts to better understand the implications of the proposed BLM usable water definition, including gathering information about how the usable water definition in Onshore Order No. 2 has historically been interpreted and applied in practice to avoid the potential introduction of risk we describe above.

States consider the value of water resources and consider the value of real freshwater resources to be substantially greater than any water resources that would require extensive treatment. It is worth considering why some insist that water of 3000-10,000 TDS or formations of mineral deserves the same level of protection as fresh water, when it requires treatment before it is usable for human consumption or agriculture. With modern water treatment technologies almost anything can be removed from any water at a cost. Generally it is not cost effective. Protecting deeply buried potential usable water makes it no more economically practical to produce or treat, particularly when considering that its “protection” puts at risk water sources that would otherwise not require treatment.

The Associations therefore believe that the current established and proven practice of appropriate regulatory agencies specifying depths for setting surface casing at the time wells are permitted is the only sensible regulatory approach. BLM should not unilaterally change that highly effective and proven system. BLM and state regulators need to be in agreement about the specific casing set depths, which will vary depending on local geology and hydrology. It would be especially senseless for BLM to require additional protection for water that states consider not in their interest to protect. Historically, this has not been a problem, but states operate with more nuanced definitions of “usable water” than BLM proposes. BLM should continue to encourage the established processes of setting surface casing and cementing it to surface in a timely manner to minimize any unwanted comingling of water that endangers genuine fresh water. Industry has a long track record of doing this right, and to require otherwise would be a step backwards in environmental stewardship.

To ensure that BLM defines protected waters consistently with the States and EPA, the Associations suggest altering § 3160.0-5 of the rule text to read as follows:

Usable Water means those waters found in the following geologic zones:

(1) Underground sources of drinking water as defined by the U.S. Environmental Protection Agency or by State law (for Federal lands) or tribal law (for Indian lands); and

(2) Zones designated by a State (for Federal lands) or a tribe (for Indian lands) as requiring isolation or protection from oil and gas operations.

In the preamble to the Revised Proposed Rule, BLM suggests that operators typically maintain drill logs to identify usable water zones as a matter of industry practice.¹⁴ The text of the rule itself (§3162.3-3(d)(2)) requires that operators submit results of “drill log[s]” for a type well to BLM as a part of the Sundry notice that identifies the depths at which usable water is located.¹⁵ There are a number of problems with this approach. Operators, as a matter of proper environmental stewardship, do not log open holes prior to surface casing.

Below surface casing, operators use open-hole resistivity logs to identify formations contacted in the drilling process, not to determine water quality in such formations. Given some assumptions, types of logging data can be used to infer expected salinity in a relative, imprecise way but not clearly enough to determine for instance an unambiguous 10,000 TDS cutoff. In addition, it is inappropriate to use TDS without the context of formation water yield to define usable water. The Associations suggest that BLM identify specific formations, either by deference to state designations or through the creation of maps and lists of protected water formations for operators to isolate, rather than require operators to identify usable water based on BLM’s definition, which does not necessarily parallel state definitions. Integrated geologic data informs operators where to expect usable water zones, not individual drill logs. This data is properly managed by state regulatory agencies, and BLM should use state definitions of protected waters to maintain consistency.

BLM also notes in the preamble to the revised rule that it is responsible for the protection of all mineral-bearing formations on federal lands. If BLM intends to require operators to isolate all mineral-bearing formations, it should provide operators with the identities or depths of those formations containing such minerals to avoid claims of inadvertent recovery or contamination of trace minerals in formations not identified by BLM for protection.

¹⁴ See *id.* at 31,662.

¹⁵ See *id.* at 31,675.

C. BLM Should Defer to State Chemical Disclosure Requirements

BLM solicits comments on “whether compliance with State or tribal requirements to disclose chemical constituents of hydraulic fracturing fluids should be deemed as compliance with the proposed rule if the State or tribal requirements meet or exceed the standard in the rule at section 3162.3-3(i).”¹⁶

Compliance with state disclosure requirements should be deemed compliance with the Revised Proposed Rule *regardless* of whether state requirements “meet or exceed” the standard in the BLM rule. To avoid duplicative and/or contradictory disclosure requirements and to ensure regulatory certainty, BLM should revise its rule to clearly state that operators need only comply with the requirements in §3162.3-3(i) with respect to hydraulic fracturing operations on federal public lands in states that do not already require chemical disclosure.

Alabama, Arkansas, Colorado, Indiana, Louisiana, Michigan, Montana, New Mexico, North Dakota, Ohio, Pennsylvania, Texas, Utah, West Virginia, and Wyoming require hydraulic fracturing chemical disclosure. Many other states are currently developing and deliberating hydraulic fracturing chemical disclosure requirements. The requirements in these states should govern, *not* BLM’s proposed § 3162.3-3(i).

D. Practical Application of Deference to States

BLM requests comments “on practical enforcement challenges that might arise if the BLM incorporates or defers to State or tribal laws or procedures, and on any proposed solutions.”¹⁷ Should BLM defer to state or tribal laws or procedures, it should also defer to states to enforce their own laws or procedures. Indeed, BLM acknowledges in the preamble that it is responsible for enforcing Federal regulations and lease conditions on Federal lands, while states are responsible for enforcing their own regulations.¹⁸ Thus, where states have regulations governing well construction, chemical disclosure, and water management, BLM should defer to those regulations, and only the states should be responsible for enforcing their own regulations.

¹⁶ *Id.* at 31,640.

¹⁷ *Id.*

¹⁸ *See id.* at 31,640.

II. BLM Should Amend Several Technical Requirements in the Revised Proposed Rule to Ensure Technical Feasibility and Increased Environmental Protection

A. The Cement Evaluation Logging (“CEL”) Requirement Does Not Meet the Purpose of Ensuring Proper Cement Treatment

The Revised Proposed Rule (§ 3162.3-3(e)) would require CELs “only of type wells, ‘wildcat’ wells that are not approved as part of a field development proposal, and whenever there is evidence of a problem with the cement job.”¹⁹ The Associations wholeheartedly agree that it is critical to achieve a good cement job on casing that protects usable water supplies in any well. Verification of the adequacy of this cement barrier is important and best achieved through direct observation (as described more fully below) instead of indirect methods such as logging. For that reason, we do not support BLM’s proposal to require CELs, even if it is only required on type wells. Verification of an adequate cement job on the *surface casing* comes from a variety of direct observations:

1. Results of vendors’ laboratory tests of cement mixtures;
2. Monitoring of surface pumping pressures, rates and densities to confirm that design assumptions are being realized;
3. Inspection of the returns during a cement job, particularly the cement returns, to observe when cement circulation is achieved and that minimum compressive strength is achieved;
4. Successful pre- and post-drillout pressure tests;
5. Correct installation of casing equipment such as centralizers, scratchers, float shoes, float collars, DV tools, packers, etc.;
6. Reciprocation and/or rotation of the casing during the cement job; and
7. Differential pressure just prior to bumping the plug is in line with expected values.

In light of comments that BLM received on the 2012 proposal stating that cement bond logs (“CBLs”) are unnecessary when cement returns to the surface, BLM now seeks “comments on whether the requirements to run a CEL on wells where there is no indication of an inadequate cement job, as proposed in paragraphs 3162.3-3(e)(2) and (e)(3), is appropriate, including specific information about the costs and benefits of requiring CELs in such cases.”²⁰ Again, there is no need to run CELs on surface casing where the operator has observed circulated cement while properly executing the cement design, particularly because the Revised Proposed Rule (§3162.3-3(e)(4)) already requires operators to provide notice to BLM whenever “there is an indication of an inadequate cement job.”²¹ Moreover, the CEL requirements in the

¹⁹ *Id.* at 31,638.

²⁰ *Id.* at 31,653.

²¹ *Id.* at 31,676 (proposed § 3162.3-3(e)(4)).

Revised Proposed Rule are duplicative of existing requirements in BLM Onshore Orders. In particular, Section III.B of Onshore Order No. 2 already requires circulation of cement on surface pipe and prompt remediation when cement is not circulated for whatever reason. That Onshore Order also allows BLM District Offices to require logging if they believe conditions warrant and if logging (which may be a temperature log) is the best method, given the specific circumstances, to provide additional information. If BLM desires to change existing regulatory requirements in Onshore Order No. 2, it should do so, rather than finalize additional, different requirements elsewhere.

The use of a CEL on the surface casing is unprecedented for onshore wells. With regard to the costs and benefits of requiring CELs, the Associations hereby incorporate, and refer BLM to individual comment letters submitted by their member companies on this subject. However, generally, CEL costs are considerable and include both direct costs (logging equipment) and indirect costs (rig time). The largest portion of the cost of logging is not the logging equipment rental and operation itself, but instead the rental costs associated with the delay of completion of the well itself. The Associations also generally note that when calculating those costs, BLM considers the additional time required to log a well, and the fact that this additional time requires very expensive equipment (the rig, mud system, power generation equipment, etc.) to remain on site during logging. Use of a “type well” to show successful cement could soften the cost burden, but the “type well” definition must remain flexible for that to happen (*see infra*, Section II.D).

In light of the foregoing, the Associations oppose BLM’s proposed CEL requirement. If, however, BLM retains the CEL provisions in the final rule, the Associations urge BLM to revise the language at the outset of §3162.3-3(e)(2) as follows:

If the BLM districts believe the conditions are warranted, the operator must run a cement evaluation log or logs on each casing that protects all known usable water . . .

New information may come to light at a later date that may change an operator’s current understanding of what water is considered usable. If usable water is defined as waters that are protected by state regulation and EPA, as suggested by The Associations, then such new information would be irrelevant. At the point in which a state determines that a water-bearing formation contains usable, protected water, these rules would require their isolation and protection.

Proposed §3162.3-3(e)(2) currently sets forth several examples of what would be appropriate CELs. BLM should expand that list to expressly reference temperature logs and positive casing and shoe testing as appropriate CELs. BLM should also specify what it means for a CEL to be “at least as effective” as a CBL.²² As currently drafted, the Revised Proposed Rule

²² See 78 Fed. Reg. at 31,675.

does not set forth any criteria upon which effectiveness should be judged. To ensure that this standard is applied uniformly by its various Field Offices, BLM should clarify this provision before finalizing the rule.

In conclusion, the adequacy of a cement job on surface pipe can best be verified by successful execution of the cementing design with direct observation of the aforementioned items 1-7 above.²³ These measures verify the adequacy of a cementing job and avoid the need for costly and risky logging. Such logging does not provide direct evidence; all logs are indirect inferences of the adequacy of a cementing job and therefore, require interpretation of measurements made by a logging tool (*e.g.*, temperature, acoustic, ultrasonic). BLM cites the American Petroleum Institute's ("API") guidance documents for hydraulic fracturing operations, but concludes only that it "describes some circumstances where CBLs are used to verify adequate cementing."²⁴ However, the guidelines themselves specifically do not recommend CBLs for surface casing, and only in specific cases, depending on well design, do the guidelines recommend running CBLs for intermediate casing.²⁵ In this particular instance, the Associations cannot support deviation from established industry best practices, and recommend that BLM remove the CEL requirement from the rule.

B. The "Mechanical Integrity Testing" Prior to Hydraulic Fracturing Requirement Should be Removed, as it is Duplicative of Onshore Order No. 2 and State Regulations

The proposed "mechanical integrity testing" requirement (§ 3162.3-3(f)), as written, is duplicative of state regulations and BLM's Onshore Order No. 2; thus, it should be removed. In particular, where state regulations set forth appropriate pressures for testing, BLM should defer to those regulations rather than impose an additional, overlapping requirement. If a toe sleeve design is used for the first stage, then the casing pressure test should be set at such a pressure to keep from prematurely opening this sleeve.²⁶

In the alternative, should the "mechanical integrity testing" section be retained in this proposed rule, § 3162.3-3(f) should not use the term "mechanical integrity testing." The proposed provision, as drafted in the proposed rule, actually requires a casing pressure test, despite its use of the term "mechanical integrity testing." Existing BLM regulations do not define "mechanical integrity testing" with respect to production wells. EPA, however, offers a

²³ See *supra* at pp. 9-10.

²⁴ 78 Fed. Reg. 31,636, 31,639 (May 24, 2013)

²⁵ API's Hydraulic Fracturing Guidance document is available at: http://www.api.org/~media/Files/Policy/Exploration/API_HF1.pdf

²⁶ See, *e.g.*, 16 TEX. ADMIN. CODE § 3.13(7)(B) (Texas Railroad Commission Rule 13, which expressly accommodates the use of toe sleeves).

definition of a “mechanical integrity test” under its Underground Injection Control program, which calls for a pressure test in conjunction with other specific types of logs or evaluations. Given that BLM specifically references and requires CELs under a separate provision of the Revised Proposed Rule (§ 3162.3-3(e)), it logically follows that the term “mechanical integrity testing,” as used in this section refers only to the pressure testing portion of what is generally referred to as a “mechanical integrity test.” To avoid confusion and to maintain consistency across the multiple regulatory agencies that have jurisdiction over oil and gas development, BLM should replace the term “mechanical integrity test” as it is used in the draft proposal with the term “casing pressure test” to avoid confusion and to more accurately describe the required procedure.²⁷

C. Monitoring Requirements in the Rule Should be Sufficiently Flexible to Allow for Differences in Geology Between Different Fields, Basins, and Regions

Like BLM’s 2012 proposal, the Revised Proposed Rule (§ 3162.3-3(g)(2)) requires that operators take immediate corrective action in the event of annulus pressure increases of more than 500 pounds per square inch.²⁸ Reliance on that threshold is duplicative of state regulations, but does not necessarily match those regulations. Allowable pressure increases can vary by formation, and while the threshold of 500 pounds per square inch may be useful for some formations, others may require a threshold that is higher. Under special circumstances, such as wells with liquid-filled annuli, pipe expansion or heat transfer from the flow of fluids through the production string can cause pressure increases in excess of 500 pounds per square inch. The Associations recommend that BLM give its field offices discretion to set a higher threshold for a specific basin or in the drilling permit for the particular well after appropriate engineering calculations have been performed. Such flexibility would allow for BLM-permitted wells to be drilled under the same monitoring requirements allowed in certain states, while still allowing BLM to set a threshold at the basin level for those states that do not have such monitoring requirements. Accordingly, the Associations suggest that BLM revise the language in proposed § 3162.3-3(g)(2) to read as follows:

(2) Unless expected by design as communicated to BLM in the APD, if during any hydraulic fracturing or refracturing operation the annulus pressure increases by more than 500 pounds per square inch or greater – the pressure set by the APD permit – as compared to the pressure immediately preceding the stimulation, the operator must take immediate corrective action and must orally notify the authorized officer as soon as practicable, but no later than 24 hours following the incident.

²⁷ See, e.g., *id.* §3.13(c)(1)(B)(ii).

²⁸ See 78 Fed. Reg. at 31,676.

D. BLM’s Rule Should Specify That Type Well-Based Approvals be Applied Generally

Should BLM retain its decision to incorporate the concept of a “type well” into the Revised Proposed Rule, the provisions setting forth type well and CEL requirements need to be further clarified within the final regulation. The proposed definition in §3160.0-5, should be amended as follows:

Type well means an oil and gas well that can be used as a model for well ~~design completion~~ in an ~~area-field~~ where geologic characteristics are substantially similar within ~~that area~~ ~~the same field~~ and where operations such as drilling, cementing, and hydraulic fracturing are likely to be successfully replicated using the same design concept. *This type well need not be a well drilled previously by the operator requesting its use.*

This suggested revision recognizes that wells may use different cement volumes and densities, variable flow rates, pressures, and different lengths and types of casing, yet still follow the same design concept to successfully isolate usable water. Specifically, in horizontal wells, the definition of a field can be very broad, or very narrow, depending on the state in which development is taking place. The section of production casing that is beneath all protected zones of usable water may change in design often within the same field depending on depth of pay zones. Under the current proposed definition, such changes in design would not meet the criteria of “using the same design” even though there would be no difference with regard to how usable water zones are isolated. Use of a type well to represent future development should focus specifically on those sections of the well that are drilled through formations containing known and explicitly usable water and mineral resources defined by the appropriate regulatory entity, regardless of which field those wells are drilled in.

Finally, the definition should specify that the type well used by the operator as a model need not be one that was previously drilled and completed by that same operator. Allowing operators to use type well information for wells drilled by other operators could avoid duplicative CELs and permitting approvals, and could reduce the delays and costs associated with those additional approvals.

E. The Requirements for the Management of Produced Water Should Reflect Industry Best Practices and Current State and Federal Water Management Principles

1. *Any Requirement Relating to the Storage of Recovered Fluids Should be Sufficiently Flexible to Allow for Recycling Efforts and Responsible Water Management*

Proposed § 3162.3-3(h) requires the storage of all recovered fluids in tanks or lined pits. BLM, however, seeks “comments on the costs and benefits of requiring flowback fluids to be

stored *only in closed tanks.*"²⁹ Additionally, BLM asked for comments on the costs and benefits of various storage alternatives for flowback fluids such as lined pits with leak detection systems "as is required for lined pits for produced water under Onshore Order No. 7" or "double-lined pits."³⁰

The costs of requiring storage only in closed tanks outweigh any perceived benefit, and thus, BLM should not impose such a requirement. The Associations' members have made significant investments in the development of recycling technologies to increase the utility of recovered fluids. Such investments have also led to a reduction in the total fresh water burden, reductions in truck traffic, and reduction in surface footprint from hydraulic fracturing operations. Large, open topped, storage tanks and pits are vital to the economic practicality of recycling technologies. They also allow operators to easily monitor changes in produced water makeup and quality. Furthermore, large, open topped tanks provide operators the opportunity to treat and transport large quantities of water at scale.

There are pros and cons to all fluid management and options. BLM and other stakeholders appear to favor closed tanks, and the Associations offer some necessary context for that discussion. Closed tanks can accumulate hydrocarbon vapors, minimize oxidation, defeat the possibility of skimming floating debris, and limit the ability of visual inspection of water quality and quantity. Given the short term duration of hydraulic fracturing operations, in certain situations, equipment needs to be designed to allow for safe and easy cleaning and transport between well locations. The mobile, open topped tanks commonly used to store fluids prior to and after hydraulic fracturing operations are easier to clean and more easily transported as compared to their closed top counterparts. Closed tanks must be properly designed for their intended use and include safety devices that provide overpressure relief, electrostatic grounding, and means for level monitoring and control. Again, there are risks and concerns present for each possible storage method, and the Associations' members properly address and manage those risks when determining which storage type is most appropriate for each application.

As a general matter, the Associations' members need the operational flexibility of being able to use pits, both of steel and earthen construction, along with closed and open topped tanks. For certain applications, lined pits provide better environmental performance through their larger size and flexible use. In other cases, tanks provide the possibility of the best environmental performance. Performance is completely based on circumstance, and operators should have the flexibility to use whichever storage system is most appropriate for the application.

²⁹ *Id.* at 31,637 (emphasis added).

³⁰ *See id.* at 31,656.

It is also worth noting that EPA's NSPS OOOO regulations require reduced emission completions starting in 2015, and flaring of uncaptured vapors until that point, which removes the need for further regulation of storage tanks. This is because a significant amount of the vapors that could potentially reach the water storage would be captured or flared much earlier in the process. Finally, the Associations urge BLM to maintain consistency between the proposed storage requirement in the Revised Proposed Rule and Onshore Order No. 7, which allows for the storage of recovered fluids in unlined pits under specified circumstances.

2. *To Remain Consistent With Current State and Federal Regulations, BLM Should Not Distinguish Between Flowback Fluid and Produced Water*

BLM has proposed the following distinction between flowback fluid from produced water: "fluids recovered from a hydraulically fractured well before it begins production of oil or gas will be considered flowback and subject to revised proposed rule section 3162.3-3(h); fluids recovered from a hydraulically fractured well after it begins production of oil or gas will be considered produced water and subject to Onshore Order No. 7."³¹ BLM is "interested in the public's views on whether such a distinction should be in the regulation, or be issued as non-binding guidance."³²

Flowback process water and produced water are technically indistinguishable. BLM should neither codify nor establish via guidance such a distinction, and should set regulations for handling produced fluids as one group. Onshore Order No. 7 already sets such requirements for produced water, as BLM recognizes throughout the preamble to the Revised Proposed Rule.³³ BLM should propose any changes to how produced water is handled, whether during the flowback process or not, only in the context of a rulemaking to revise Onshore Order No. 7, not by promulgating new, conflicting regulations. Further, if BLM intends to update produced water requirements, it should do so in a way that encourages the recycling of produced waters.

³¹ *Id.* at 31,655-56.

³² *Id.* at 31,656.

³³ *See id.* at 31,655-57, 31,662.

III. BLM Should Amend Definitional and Reporting Requirements in the Revised Proposed Rule to Remain Consistent with BLM’s Stated Intent, Reduce Permitting Delays, and Further Clarify the Regulations

A. BLM Should Revise the Definitions of “Hydraulic Fracturing” and “Refracturing” to Better Reflect Its Expressed Intent in the Preamble

The Associations strongly support BLM’s decision to remove the definition of “Well stimulation”³⁴ from its initial proposal and replace it with the definition of “Hydraulic fracturing.” This is an important change, and the Associations believe that BLM has properly excluded enhanced secondary recovery (*e.g.*, water flooding), tertiary recovery, recovery through steam injection, or other well stimulation operations (*e.g.*, acidizing) from the requirements of the Revised Proposed Rule. BLM’s decision to exclude particular operations from the scope of the rule is a positive change. BLM cannot possibly account for future developments in technology. As such, limiting the term “hydraulic fracturing” to those operations that fracture the rock formation is important.

BLM has added a definition of “Refracturing” in the Revised Proposed Rule that means any “hydraulic fracturing operation subsequent to the completion of a prior hydraulic fracturing operation in the same well.”³⁵ By clarifying that a hydraulic operation is completed “when equipment necessary to inject the hydraulic fracturing fluid at sufficient pressure to fracture the stratum is removed from the well pad,”³⁶ this new definition would apply to hydraulic fracturing treatments that BLM likely did not intend to include within the scope of the rule. Often, to reduce pad size, and to best use available resources in a developing oil and gas play, pumping equipment is moved off pad between stages of a single hydraulic fracturing treatment to test the well’s initial performance. Operators do this to better understand target zone chemistry and response to the stimulation and to better design later fracture stages of the same initial treatment.

In addition, when equipment is removed from the well pad and then brought back during a multi-stage fracturing operation, that could fall under the proposed definition of “refracturing,” thereby triggering additional requirements such as what BLM refers to as “mechanical integrity testing.” But operators cannot perform such testing when there are open perforations. The Associations believe BLM did not intend to require such “mechanical integrity testing” on wells that have perforated casing, and BLM should clarify the rule’s language accordingly. To subject operators to the various new requirements in proposed §3162.3-3 any time equipment is temporarily moved off between stages of a single hydraulic fracturing treatment would be unreasonable and cannot possibly be what BLM intended.

³⁴ See 77 Fed. Reg. at 27,709.

³⁵ 78 Fed. Reg. at 31,674.

³⁶ See *id.*

As evidence of this intent, the Associations call attention to BLM's statement in the discussion about proposed § 3162.3-2(b), that "[r]efracturing operations within five years from the approval of a Notice of Intent Sundry would be considered a 'recompletion' under section 3162.3-2(b)" that does not require prior approval.³⁷ This clarification should be codified in the definition of "Refracturing" and/or in § 3162.3-2(b). Accordingly, the Revised Proposed Rule should be amended as follows (additions are italicized):

Refracturing means a hydraulic fracturing operation subsequent to the completion of a prior hydraulic fracturing operation in the same well. For purposes of this definition, a hydraulic fracturing operation is completed when a well begins ~~producing~~ *selling* oil or gas through production equipment, ~~or when equipment necessary to inject the hydraulic fracturing fluid at sufficient pressure to fracture the stratum is removed from the well pad, whichever occurs earlier.~~ *Refracturing operations within 5 years from the approval of a Notice of Intent Sundry would be considered a 'recompletion' under section 3162.3-2(b) and do not require prior BLM approval.*

Similarly, proposed § 3162.3-2 should be amended as well. The regulatory text should clarify, as the preamble to the Revised Proposed Rule does, that "[r]efracturing operations within 5 years from the approval of a Notice of Intent Sundry would be considered a 'recompletion' under [this] section" that does not require prior approval absent additional surface disturbance and if the operations conform to the standard of prudent operating practice.³⁸ The Associations suggest the following text be amended in § 3162.3-2:

(a) A proposal for further well operations must be submitted by the operator on Form 3160-5 for approval by the authorized officer prior to the operator's commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing, recomplete in a different interval, perform water shut off, combine production between zones and/or convert to injection. *Refracturing operations within 5 years from the approval of a Notice of Intent Sundry would be considered a 'recompletion' under part (b) of this section and do not require prior BLM approval.*

³⁷ *Id.* at 31,647.

³⁸ *See id.* at 31,647.

B. BLM Should Clarify That it Revised Its Prior Proposal to Remove Requirements for Wells Drilled Before the Rule’s Finalization

The Revised Proposed Rule removes the reference to “wells permitted prior to the effective date of this section” formerly contained in §3162.3-3(b)(ii) of BLM’s proposal.³⁹ The Associations support this deletion, as the Revised Proposed Rule’s requirements should not be retroactively applied to wells permitted and completed prior to the effective date of the well for the reasons set forth in the Associations’ 2012 comments.⁴⁰ “Retroactivity is generally disfavored in the law . . . in accordance with ‘fundamental notions of justice’ that have been recognized throughout history[.]”⁴¹ Indeed, “an agency may not promulgate retroactive rules without express congressional authorization.”⁴² To impose the requirements of the Revised Proposed Rule retroactively, BLM must explain the statutory basis authorizing it to do so. BLM must also explain how retroactive application of the Rule’s requirements does not constitute a breach of contract where an operator’s lease form contains language stating that “only statutes and regulations existing at the time of the contract” will apply.⁴³

Despite the change in regulatory text, the preamble to the Revised Proposed Rule states that BLM recognized, but ultimately rejected, comments suggesting that wells permitted prior to the effective date be exempt from the rule.⁴⁴ Thus, assuming that all sections of proposed § 3162.3-3 will apply even to hydraulic fracturing operations on wells drilled before the proposal of these rules, BLM should revise the rule to state that §§ 3162.3-3(e) and (i)(8) do not apply to such existing wells. Operators cannot possibly comply with those requirements retrospectively. For wells drilled before the rule was proposed, a specific requirement to monitor during cementing operations and to run cement evaluation logs may not have been in place, as BLM even recognizes in stating that “the running of CELs on surface or intermediate casing strings, *which is currently an optional practice*, would be required for new wells.”⁴⁵ Consequently, these operations and records may not be available.

Given BLM’s implicit recognition that compliance with certain provisions of the Revised Proposed Rule would be impossible, the Associations propose that BLM revise § 3162.3-3(a) to state: “This section applies to all hydraulic fracturing operations, and re-fracturing operations.

³⁹ See 77 Fed. Reg. at 27,709.

⁴⁰ See ANGA *et al.* Sept. 2012 Comment Letter, at 14 and 27.

⁴¹ *Eastern Enters. v. Apfel*, 524 U.S. 498, 533 (1998).

⁴² *Arkema Inc. v. EPA*, 618 F.3d 1, 7 (D.C. Cir. 2010).

⁴³ See *Mobil Oil Exploration & Producing Se., Inc. v. United States*, 530 U.S. 604, 616 (2000).

⁴⁴ See 78 Fed. Reg. at 31,646.

⁴⁵ *Id.* (emphasis added).

For wells drilled before [insert date of publication of final rule in the federal register], sections 3162.3-3(e) and 3162.3-3(i)(8) do not apply.”

As amended in this manner, this provision would still accomplish the goal of the Revised Proposed Rule to isolate usable water from contamination because of the required “mechanical integrity testing” in proposed §3162.3-3(f). The suggested revision would also ensure that operators do not needlessly abandon wells that are effectively isolating usable water in compliance with Onshore Order No. 2 and state regulations, due to a lack of available cementing operations monitoring data. Existing wells were not drilled or permitted in contemplation of the requirements set forth in these new rules, but rather, were drilled in compliance with existing state and/or federal rules that are sufficiently protective of usable water. An absence of any mechanical problems on existing wells that could jeopardize usable water supplies where hydraulic fracturing operations are to be performed is a reasonable basis not to retroactively apply new rules to those wells. The cost of bringing existing wells into compliance with these new regulations could result in the premature plugging of each well, the abandonment of otherwise recoverable reserves, and the resulting loss of economic benefit to the public and operators.

Finally, if BLM’s final rule mandates that wells drilled prior to the effective date of the rule comply with §§3162.3-3(e) and (i)(8), operators of those wells will uniformly have to seek variances for those particular provisions under proposed §3162.3-3(k)(1). The availability of the variance provision, however, does not justify imposing a requirement that cannot be met. Indeed, BLM “cannot save an irrational [provision within a] rule by tacking on a [variance mechanism].”⁴⁶ Rather, it should revise the rule to remove the irrational requirement. Variances should be the exception, not the norm. Because the exception would swallow the rule in this instance, BLM should revise its rule to clarify that wells drilled prior to the effective date need not comply with §§3162.3-3(e) and (i)(8).⁴⁷

C. The Rule’s Reporting and Recordkeeping Requirements Should be Streamlined and Digitized to Reduce Delays in Approval, and to Avoid Duplication of Reporting Requirements

1. The Records Retention Requirements of the Rule are Appropriate

Under the Revised Proposed Rule (§3162.3-3(j)(4)), operators would be required to maintain information claimed to be exempt from disclosure in their records for six years after the completion of hydraulic fracturing operations.⁴⁸ BLM expressed an interest in “environmental and economic information that would show that another time period would be

⁴⁶ *Alltel Corp. v. FCC*, 838 F.2d 551, 561 (D.C. Cir. 1988).

⁴⁷ *Cf. Ass’n of Oil Pipe Lines v. FERC*, 281 F.3d 239, 244 (D.C. Cir. 2002).

⁴⁸ *See* 78 Red. Reg. at 31,660.

more appropriate.”⁴⁹ The Associations believe that six years is an appropriate records retention period for lease operations, as most of their member companies have policies in place that require record retention beyond the contemplated six-year time period. It bears emphasis, however, that operators may not have records for information that service and chemical providers claim to be protected trade secrets. The Associations provide additional discussion of this issue below in comments to proposed §3162.3-3(j).

2. *Permitting Delays are Currently Significantly Burdensome Under the Current Regulatory Structure, and Without a Correlative Increase in Workforce and Expertise, the Revised Proposed Rule will Necessarily Increase Permitting Delays for Operators, Further Reducing the Incentive for Operators to Lease Minerals on the Public Lands*

BLM proclaims that “[c]hanges from the initial proposal in this revised proposed rule would reduce possible permitting delays and BLM projected workload.”⁵⁰ Though it may be true that permitting delays and BLM-projected workload under the Revised Proposed Rule would be reduced in comparison to BLM’s initial proposal, the Revised Proposed Rule will nevertheless add to *present* permitting delays and BLM workload. BLM should therefore specifically address the delays already present in the permit approval process. The Revised Proposed Rule undoubtedly will increase the responsibilities of BLM field offices without a commensurate increase in personnel. One way to reduce federal spending, specifically by BLM, would be to defer to states wherever possible. As discussed earlier, there are multiple opportunities for BLM to defer to state regulation in the context of these proposed rules. If BLM intends to reduce permitting delays, it should take advantage of that opportunity, and defer to states wherever possible.

Arguably, the most effective method of eliminating permitting delays would be to regard compliance with state regulations as compliance with federal regulations in those states that regulate well integrity, chemical disclosure, and water management. In the Final Rule, BLM should provide a list of states that do not currently regulate well integrity, chemical disclosure, or water management, and it should include clarifying language that its rule applies only to hydraulic fracturing operations on federal lands in those states.

3. *Proposed § 3162.3-3(c): When an Operator Must Submit Notification for Approval of Hydraulic Fracturing*

The Associations recognize BLM’s significant efforts to remove unnecessary steps in the approval process by streamlining the process into a single approval. Just as BLM suggests that “operators, over time, will be able to gain efficiencies and reduce costs below the estimates

⁴⁹ *Id.*

⁵⁰ *Id.* at 31,645.

provided,”⁵¹ BLM could also reduce burdens on its own staff and address current permitting delays by, among other things, automation efficiency, adding technical clarity to its forms, and following state forms where possible.

While there are significant improvements upon the initial proposal, the Revised Proposed Rule should go further and allow for the electronic filing and processing of permits to the maximum extent practicable. Several regional BLM offices are already working toward efficient electronic permitting, and BLM should require that the Revised Proposed Rule not be effective until a nationwide standard for electronic permitting is adopted by all BLM offices. BLM should also include check boxes on its forms for particular categories of information.

Moreover, the Revised Proposed Rule should set time limits on BLM’s response to the submission of Sundry Notices. Often, hydraulic fracturing operations plans must be developed in a short time window to effectively maximize resource recovery. Similarly, BLM should provide examples of submissions it would consider appropriate for Sundry Notices, or it should release electronic forms, to avoid multiple conditional denials based on formatting differences. BLM should do this well in advance of finalizing the rule.

4. Requirements on Submission of Drill Logging and Fracture Direction Information Should be Removed

In presentations to industry about the Revised Proposed Rule, BLM personnel indicated that they did not believe that the drill log data submission requirement in § 3162.3-3(d) goes beyond what is already required in Onshore Order No. 2. Assuming that is the case, duplicating this requirement in the Revised Proposed Rule only creates ambiguity and confusion, which can lead to litigation. Left unchanged, the requirement could be interpreted to mandate mud logs or resistivity logs, which are costly and are not normally used on boreholes for surface pipe. Because this is a redundant requirement, it should be deleted from the rule.

Also, BLM apparently intends to use fracture direction information to determine if fractures would be intersecting previously drilled and fractured wells, or older abandoned well bores. BLM anticipates spending time on technical review on APDs and Sundry Notices. This will only add to the existing delays in the permitting process and strain available BLM resources. Fracture extent information is typically modeled and estimated to understand reservoir characteristics and extent, and for identification of superior perforation and fracture treatment techniques. Submitting this information to BLM, and therefore making it available to the public, would render the intellectual property value of the information nil. BLM should allow a mechanism in the rule that ensures this information, if submitted, is held confidentially for a period of five (5) years from the date of submission, before being made public.

⁵¹ *Id.* at 31,665.

Holding business information confidential, even for a short period of time such as five years, would serve to increase recovery of minerals on the public lands. Innovation is hindered by premature disclosure. Without the incentive to experiment with fracture and perforation techniques to develop a competitive advantage in a certain play, operators would instead choose a method that may be less effective, but more consistent. This ultimately will result in reduced overall yields from the public lands, bringing less revenue to the federal government than that which would be expected if the information were kept confidential. This delay would also not significantly affect BLM's designed use of the information. BLM could still use the reported information to determine if fractures would be intersecting previously drilled and fractured wells, or older abandoned well bores.

5. *The Certification and Deviation Reporting Requirements Are Too Vague and Unduly Burdensome*

Proposed § 3162.3-3(i)(6) reads, "If the actual operations deviate from the approved plan, the deviation must be documented and explained." This deviation reporting requirement is extremely vague and imposes unreasonable and potentially significant burden on operators in determining what constitutes a deviation and then providing documentation of the deviation and an explanation of why the deviation occurred. BLM offers no definition or explanation on what constitutes a deviation, what operations this requirement applies to, and whether the deviation needs to be deemed significant to warrant documentation and explanation. For example, if an operator uses a different source of water or a different volume of water than planned, operators cannot determine whether that change is significant to require classification as a deviation that needs to be documented and explained separate from what is provided in the subsequent report. As written, this requirement does not provide adequate clarity and the potential application is beyond reason as there are so many possibilities of what could be a deviation between a planned versus an actual operation in terms of time (date) and duration, quantity, type, method, entity, parameter, etc. BLM must clearly articulate what constitutes a deviation, what operations the deviation applies to, and when the significance of a deviation warrants further documentation and explanation beyond what is provided in the report of subsequent operations to BLM.

Further, the requirements under § 3162.3-3(i)(7) for certification are unprecedented, and should be significantly amended or removed altogether. Proposed § 3162.3-3(i)(7) currently requires that operators certify that well integrity was maintained prior to and throughout the hydraulic fracturing operation, as required by § 3162.3-3(b). Subparagraph (b) directly refers to the performance standard in § 3162.5-2(d) on isolation of all usable water. As discussed above, given certain open hole logging requirements, and deep setting of surface casing required by the proposed rule, compliance with the rules requires that usable water zones will not be adequately isolated from one another, or from any intervening zones. Further, even if all usable water zones are isolated from deeper zones, this does not ensure wellbore integrity. Wellbore integrity is ensured through the technical observations described in section II.A of these comments. The certification requirements should focus specifically on compliance with all applicable federal, state, and tribal regulations. BLM should remove the

requirement to certify wellbore integrity that cross-references to usable water zonal isolation. Thus, this section should be amended as follows:

“A certification signed by a the operator that includes its name, address, and telephone number, and the same information for its field representative, in the APD package (i) ~~Wellbore integrity was maintained prior to and throughout the hydraulic fracturing operation, as required by paragraph (b) of this section. The operator must also certify that it complied with the requirements in paragraphs (e), (f), (g), and (h) of this section;~~ (ii) ~~For Federal lands, the hydraulic fracturing fluid used complied with all applicable permitting and notice requirements as well as all applicable Federal, State, and local laws, rules, and regulations;~~ and (iii) ~~For Indian lands, the hydraulic fracturing fluid used complied with all applicable permitting and notice requirements as well as all applicable Federal and tribal laws, rules, and regulations.”~~

The following certification must carry the operator’s original signature or meet the BLM standards for electronic commerce:

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this ---- day of -----, 2013.

Name -----

Position Title -----

Address -----

Telephone -----

Field representative (if not above signatory) -----

Address (if different from above) -----

Telephone (if different from above) -----

E-mail (optional) -----

Agents not directly employed by the operator must submit a letter from the operator authorizing that agent to act or file this application on their behalf.

D. BLM Should Amend the Hydraulic Fracturing Chemical Disclosure Requirements in the Revised Proposed Rule

1. Proposed §3162.3-3(i) is Significantly Improved from the 2012 Proposal, but Should be Clarified Further

Many of the requirements set forth in this section are identical to those in BLM's 2012 proposal, but BLM has made some important changes to this section. In particular, the Associations support BLM's decision to revise the 2012 proposal to allow operators to disclose the additive ingredients of hydraulic fracturing fluids through FracFocus. FracFocus is a widely-used chemical disclosure database for wells drilled in the states and is the most technically capable, highly searchable database available for hydraulic fracturing chemical disclosure. The primary goal of chemical disclosure is not only to provide concerned citizens and landowners with information regarding individual wells near to their property and homes but also to provide that information in context with the depth of the well and the concentrations of additives. The use of separate disclosure systems for federal and non-federal wells would create confusion and be a disservice to those landowners who may not be aware of the distinction.

This proposed section should not create a redundant requirement such that a single fracturing operation is reported twice in FracFocus—once to comply with State requirements and the other to comply with the BLM rule. Given the technical development of, and investment to date, in FracFocus, it would be a misallocation of public resources for BLM to create a separate, new disclosure system through this rulemaking.

Further, the BLM should be very specific and consistent in the terms utilized throughout the regulation. In the requirements for disclosure, "chemical" is mistakenly utilized in lieu of "additive." This clarification is very important as the requirements for chemical ingredients, trade name, and supplier are specific only to hydraulic fracturing additives.

Proposed § 3162.3-3(i)(2) requires additional clarification. As currently drafted, that section requires that "source(s) and location(s) of the water used in hydraulic fracturing" be disclosed in a Subsequent Report Sundry Notice.⁵² The rule should distinguish between surface, subsurface, and recycled subsurface waters, and between usable and non-usable water, but should not be specific to named rivers, lakes, and other sources. Operators have developed increasingly complex technologies to develop recycling and processing techniques, but the cost

⁵² See 78 Fed. Reg. at 31,676.

effectiveness of those techniques is reliant on building facilities at large scale. These large scale facilities often take water from many different sources before it is then used for hydraulic fracturing. Any water source and location data submitted to BLM should account for this possibility, so as to not discourage the environmentally beneficial practice of water recycling. To that end, the Associations suggest that § 3162.3-3(i)(2) be revised as follows (additions are italicized):

The actual measured depth of perforations or the open-hole interval, and the ~~actual pump pressures~~ *pump-in pressure of the hydraulic fracturing treatment, and for* ~~of the water used in the~~ hydraulic fracturing ~~fluid~~, *an identifying type from the following categories: usable surface, usable subsurface, recycled subsurface, non-usable surface, non-usable subsurface, combined recycled.*

2. *Proposed §3162.3-3(j): Identifying Information Claimed to be Exempt from Public Disclosure.*

Proposed §3162.3-3(j)(1) requires operators, and only operators, to provide affidavits to support claims that information is exempt from public disclosure.⁵³ Operators are not able to sign affidavits supporting claims of trade secret information, because they cannot affirm, with certainty, that information given to them by chemical providers meets the criteria enumerated in this section. BLM should revise the rule to avoid requiring operators to submit affidavits on behalf of other entities, and if affidavits are required, those chemical providers and service companies should be required to provide them.

BLM states throughout the preamble to the Revised Proposed Rule that the revised disclosure provisions are modeled on the procedures promulgated by the State of Colorado.⁵⁴ An examination of the language in the Colorado rule, however, demonstrates that BLM's Revised Proposed Rule differs in one key aspect—it only applies to operators:

(* * *)

“B. If the **vendor, service provider, or operator** claim that the specific identity of a chemical, the concentration of a chemical, or both the specific identity and concentration of a chemical is/are claimed to be a trade secret, the operator of the well must so indicate on the chemical disclosure registry form and, as applicable, the vendor, service provider, or operator shall submit to the Director a Form 41 claim of entitlement to have the specific identity of a chemical, the concentration of a chemical, or both withheld as a trade secret. The operator must nonetheless disclose all information required under subsection

⁵³ See *id.* at 31,677.

⁵⁴ See, e.g., *id.* at 31,636, 31,637, 31,659, 31,660.

205A.b.(2)(A) that is not claimed to be a trade secret. If a chemical is claimed to be a trade secret, the operator must also include in the chemical registry form the chemical family or other similar descriptor associated with such chemical. (emphasis added)

C. At the time of claiming that a hydraulic fracturing chemical, concentration, or both is entitled to trade secret protection, **a vendor, service provider or operator** shall file with the commission claim of entitlement, Form 41, containing contact information. Such contact information shall include the claimant's name, authorized representative, mailing address, and phone number with respect to trade secret claims. If such contact information changes, the claimant shall immediately submit a new Form 41 to the Commission with updated information. (emphasis added)

D. Unless the information is entitled to protection as a trade secret, information submitted to the Commission or posted to the chemical disclosure registry is public information.”

The service company is typically the entity making the trade secret claim. An operator may enter the information into FracFocus and represent that a particular chemical additive is not specifically identified due to a trade secret claim. But in Colorado, the party that holds the trade secret and actually makes the claim is the one that must file the Form 41 affidavit and provide its contact information. As such, the holder of the trade secret and the filer of the affidavit is the party that must defend a challenge to the claim. Colorado's regulation makes sense because trade secret protection, both at the state level and under federal common law, is extended only to the owner of the trade secret.

The Associations strongly oppose BLM's decision to require operators to file affidavits on behalf of service and chemical providers. BLM should revise the proposed regulation to clarify, as the Colorado regulation does, that: “An operator is not responsible for any inaccuracy in information provided to the operator by the service company or vendor.” Should the BLM rule be revised in such a manner, operators would no longer be required to vouch for the accuracy of the trade secret claim; they would merely be timely reporting it.

Additional problems will result from BLM's proposal to apply the provisions governing trade secret claims apply to only operators. Proposed § 3162.3-3(j)(2), which allows BLM to “require any operator to disclose to the BLM any information claimed to be exempt from public disclosure,”⁵⁵ will either force operators to disclose information that is not their property (assuming operators somehow obtain such information) or will be impossible for operators to comply with. In those instances where the operator and service or chemical providers are not the same entity (this represents the vast majority of wells drilled on the public lands), the

⁵⁵ See *id.* at 31,677.

ownership of trade secret information lies with the service and chemical provider who formulated the product through innovation and substantial effort. Were this information to be disclosed to the operator in the absence of a non-disclosure agreement, the information would cease to remain a trade secret, and its protection would be forfeited. To avoid such forfeiture, service and chemical providers do not typically provide trade secret information to operators under any circumstances. Thus, even if BLM tries to require an operator to disclose information that a service or chemical provider claims is a trade secret, the operator cannot comply with BLM's request.

Similarly, operators will not be able to retain records of trade secret information for six years (as required by proposed §3162.3-3(j)(4)) if they do not hold the information initially.

Finally, BLM should revise the proposed §3162.3-3(j) to specify appeal procedures in the event BLM insists that operators disclose information claimed to be exempt from disclosure and determines that information is not exempt. Disclosure of trade secret information is not a reversible action. Once such information is publicly available, it is no longer protected. Therefore, the owner of the trade secret in question should have the opportunity to contest and appeal any determination that information should be made public to protect the significant investment the company has placed in the technology subject to protection.

IV. BLM Can Provide Additional Clarity in the Revised Proposed Rule

BLM invited comments “on how to make these proposed regulations easier to understand,” and it presented five questions regarding clarity of the Revised Proposed Rule.⁵⁶ The Associations offer the following comments in response to those questions:

First, with regard to whether requirements in the Revised Proposed Rule are clearly stated, we have provided comments throughout this document as to which specific provisions in the proposed rule should be revised to provide further and necessary clarity.

Second, the proposed rule does not contain technical language or jargon that interferes with their clarity. The regulations apply to regulated entities that have the necessary expertise to understand industry language and jargon. There are however, three instances where BLM misuses technical language or jargon in the Revised Proposed Rule in such a way that will cause confusion: (i) the proposed rule discusses “mechanical integrity testing” in proposed §3162.3-3(f), but BLM should instead use the term “casing pressure test” when defining and setting forth the requirements in that provision; (ii) the proposed rule seeks to distinguish “flowback fluids” from “produced water,” even though flowback fluids are a subset of produced water and should not be distinguished in the manner BLM proposes;⁵⁷ and (iii) the proposed rule contains

⁵⁶ See *id.* at 31,674.

⁵⁷ *Id.* at 31,655-56.

a misuse of the terms “chemical” and “additive” in the chemical disclosure portions of the rule.⁵⁸

Third, the format of the Revised Proposed Rule (*e.g.*, grouping and order of sections, use of headings, paragraphing, etc.) is adequate for purposes of providing clarity. Fourth, BLM’s proposed rule would not be easier to understand if it is divided into more, but shorter, sections. Any lack of clarity in the proposed rule is not due to formatting, but instead unclear requirements and language.

Fifth, the description of the Revised Proposed Rule in the preamble to the regulations contains discussions that can be used to clarify the rule’s language, but BLM should revise the regulatory text itself to maximize clarity. The Associations offer a number of suggestions above on how BLM should revise the language in specific provisions of the rule to help clarify the scope and intent of the regulations.

V. BLM’s Revised Proposed Rule Will Have an Estimated Annual Impact of Over \$100 Million, Thereby Necessitating Further Economic Review

In its economic analysis for the Revised Proposed Rule, BLM continues to insist that the rule will not exceed the \$100 million threshold set forth in Executive Order 12866 and the Unfunded Mandates Reform Act of 1995. BLM also maintains that the rule will not have a significant economic impact on a substantial number of small entities (Regulatory Flexibility Act and Small Business Regulatory Enforcement Fairness Act of 1996) and that the rule is not a “significant energy action” under Executive Order 13211. A recent study released by Western Energy Alliance and the Independent Petroleum Association of America, however, estimates that the Revised Proposed Rule will impose an annual cost of \$345 million, with an average per well cost of \$96,913.⁵⁹ Accordingly, before BLM moves forward with the Revised Proposed Rule, the proposal should be subject to additional economic reviews under the aforementioned laws.

CONCLUSION

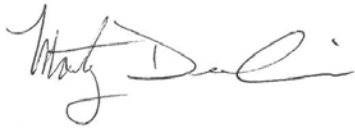
The Associations appreciate BLM’s efforts in incorporating and responding to stakeholder concerns in the Revised Proposed Rule, as well as the opportunity to provide these additional comments. While the Associations believe the Revised Proposed Rule improves

⁵⁸ *Id.* at 31,676.

⁵⁹ See Western Energy Alliance, “BLM Fracing Rule Imposes \$345 Million Cost to Society (July 22, 2013), *available at* <http://www.westernenergyalliance.org/press-room/blm-fracing-rule-imposes-345-million-cost-society-0>; see also Memorandum from John Dunham & Associates, to Kathleen Sgamma, Western Energy Alliance, “Business Impact of Revised Completion Regulations,” (July 22, 2013), *available at* <http://www.westernenergyalliance.org/wp-content/uploads/2013/07/Final-Economic-Analysis-of-the-BLM-Fracing-Rule-Revision.pdf>.

upon many areas of concern in the 2012 proposal, there remains significant room for improvement should the BLM move forward with a final rule. The Associations thus welcome the opportunity to provide additional feedback that can help advance the shared objective of fostering safe and responsible domestic energy development on federal lands to the benefit of our nation's environment, economy, and security.

Sincerely,

A handwritten signature in black ink, appearing to read "Marty Durbin". The signature is fluid and cursive, with the first name "Marty" written in a larger, more prominent script than the last name "Durbin".

Marty Durbin
President and CEO
America's Natural Gas Alliance

A handwritten signature in black ink, appearing to read "V. Bruce Thompson". The signature is cursive and somewhat stylized, with the first name "V. Bruce" written in a larger, more prominent script than the last name "Thompson".

V. Bruce Thompson
President
American Exploration & Production Council