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SUBJECT: Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands, 78 Fed. Reg. 31,635 (May 24, 2013). RIN 1004-AE26

The American Petroleum Institute (“API”) appreciates the opportunity to comment on the supplemental notice published by the Bureau of Land Management (“BLM”) on May 24, 2013, regarding a revised proposed rule to regulate hydraulic fracturing on federal and Indian lands. These comments address technical and legal deficiencies with the proposed rule, as well as its significant potential implications for the U.S. economy through its attempt to apply unjustified new regulations to an already effectively regulated activity. While the revised proposed rule makes several improvements upon the May 2012 original proposed rule, many shortcomings remain and the BLM should not finalize the rule as currently proposed.

API is a national trade association representing over 500 member companies involved in all aspects of the oil and natural gas industry. API’s members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry. API and its members are dedicated to protecting the environment while economically developing and supplying energy resources for consumers. API members carry out operations for safe and environmentally responsible exploration and production of natural gas, crude oil, and associated liquids on lands administered by BLM, including production via the use of hydraulic fracturing.

API is also the worldwide leading standards-making body for the oil and natural gas industry. Accredited by the American National Standards Institute (“ANSI”), API has issued approximately 500 consensus standards governing all segments of the oil and gas industry. These include standards and guidelines on well construction and hydraulic fracturing, such as

those referenced by BLM in the preamble to this proposed rule,¹ as well as standards and recommended practices incorporated or referenced in numerous other Department of the Interior (“DOI”) regulations.

Unconventional oil and gas production, including through the use of hydraulic fracturing and horizontal drilling on federal and Indian lands, has unlocked a game-changing energy revolution across the country. According to IHS, unconventional oil and natural gas development already supports over 1.7 million jobs and is on pace to support nearly 3 million jobs by the end of the decade.² Savings from lower natural gas prices alone are projected to add an average of \$926 per year to annual household disposal income between 2012 and 2015, rising to an average of over \$2,000 by 2035.³ The U.S. Energy Information Administration has also recently confirmed that from 2007-2012, the oil and gas industry created new jobs at a rate forty times greater than that of the overall U.S. private sector.⁴ And EPA Administrator Gina McCarthy has also recently stated that “natural gas alone can support more than 600,000 jobs by the end of the decade. Right now, this industry is supporting nearly 140,000 jobs in Colorado.”⁵ In short, oil and gas production has re-energized a stagnant U.S. economy during the worst downturn in a generation.

But as API commented in response to BLM’s original May 2012 proposed rule on hydraulic fracturing,⁶ the current proposed rule threatens to undermine these significant gains in U.S. employment and real income, as well as in manufacturing and global trade to the detriment of the nation’s economy, with no substantiated or readily apparent benefits. According to Advanced Resources International (“ARI”), the cost implications of BLM’s proposed rule are severe.⁷ ARI estimates that the total costs associated with this rule could range from \$30 million per year to \$2.7 billion per year. Even on the low end, this estimate is substantially higher than the BLM’s,

¹ See, e.g., 78 Fed. Reg. 31,639 (citing API Guidance Document HF1, Hydraulic Fracturing Operations—Well Construction and Integrity Guidelines, and API Guidance Document HF2—Water Management Associated with Hydraulic Fracturing. Both of these documents are currently undergoing revision and balloting through the open, ANSI-accredited API process and are expected to be released as revised standards later in 2013.). See also *id.* at 31,655 (citing API Recommended Practice 51R, Environmental Protection for Onshore Oil and Gas Production Operations and Leases).

² IHS, “America’s New Energy Future: The Unconventional Oil and Gas Revolution and the U.S. Economy, Volume 1: National Economic Contributions” (Oct. 2012), available at <http://www.ihs.com/images/Americas-New-Energy-Future-National-Main.pdf>.

³ IHS, “The Economic and Employment Contributions of Shale Gas in the United States” (Dec. 2011), available at <http://www.ihs.com/info/ecc/a/shale-gas-jobs-report.aspx>.

⁴ See also Energy Information Administration, “Oil and Gas Industry Employment Growing Much Faster Than Total Private Sector Employment” (Aug. 8, 2013), available at <http://www.eia.gov/todayinenergy/detail.cfm?id=12451#>.

⁵ See <http://energyindepth.org/mtn-states/new-epa-admin-natural-gas-key-to-more-jobs-cleaner-environment/>.

⁶ Oil and Gas; Well Stimulation, Including Hydraulic Fracturing, on Federal and Indian Lands, 77 Fed. Reg. 27,691 (May 11, 2012). To the extent BLM’s revised proposed rule does not adopt API’s prior submitted comments, those comments are fully incorporated by reference herein. See <http://www.regulations.gov/#!documentDetail;D=BLM-2012-0001-7379>.

⁷ Advanced Resources International, Inc., “Challenges Associated with Assessing the Impacts of Bureau of Land Management’s Proposed Hydraulic Fracturing Rule” (June 2013) (hereinafter “ARI report”). A copy of the ARI report is submitted as an attachment to these comments.

which assumes annualized costs to industry, without empirical support, of only “about \$12 to \$20 million.”⁸

In addition, as further outlined below, BLM has failed to establish a record to justify this proposed rule. On the contrary, very recent official testimony and scientific research from BLM and DOI run exactly counter to the proffered justifications for the proposed rule. As we have stated before, API is concerned that this proposed rule is a solution in search of a problem, an attempt to throw the regulatory apparatus of the federal government over an issue solely to address unsubstantiated “public concern.” That alone cannot justify additional and costly rules that would have no discernible benefit.

For these reasons and other substantive concerns regarding the revised proposed rule detailed below, API urges BLM to reconsider its proposed rule and its potential impacts on a still-recovering economy. At a minimum, BLM should make the revisions to the rule described in the following sections of these comments.

I. BLM Has Failed to Justify the Need for the Proposed Rule

a. The Rule Is Unnecessary Because There Have Been No Confirmed Instances of Hydraulic Fracturing Impacting Groundwater

BLM states that “the primary goal of this rule is to ensure that hydraulic fracturing does not cause negative impacts to Federal or Indian resources, including groundwater[.]”⁹ However, in the preamble to the rule, BLM fails to cite even a single example of any such negative impacts to groundwater from the over one million hydraulically fractured wells, including on federal or Indian lands or anywhere in the country. While BLM notes “public concern about whether fracturing can lead to or cause the contamination of underground water sources,” and asserts, without support, that “the likelihood of an incident resulting from a hydraulic fracturing operation could be between 0.03 and 2.70 percent,” it does not elaborate on whether such contamination has ever happened; what sort of “incident” it estimates would have a likelihood of occurring in a range of probability that varies by two orders of magnitude;¹⁰ or whether such contamination or incident is even possible. In short, BLM is attempting to justify new

⁸ 78 Fed. Reg. 31,665.

⁹ *Id.* at 31,646. The BLM statement that includes the quoted language also mentions potential impacts to “surface water,” but discharges to surface water on federal and Indian lands are clearly already regulated under the Clean Water Act and its implementing regulations. BLM has not attempted to justify why additional regulations beyond the Clean Water Act are necessary to mitigate impacts of discharges to surface water on federal and Indian lands.

¹⁰ In fact, the SEAB Shale Gas Production Subcommittee Second Ninety Day report, on which BLM relies as a basis for issuing the proposed rule (78 Fed. Reg. 31,639), acknowledges that “the risk of fracturing fluid leakage into drinking water sources through fractures made in deep shale reservoirs is remote.” Department of Energy, Shale Gas Production Subcommittee Second Ninety Day Report (Nov. 18, 2011), at 17.

regulations based solely on perceived “public concern,” not on actual data or agency experience administering oil and gas leases on federal and Indian lands. This is arbitrary and capricious agency action.¹¹

Despite BLM’s apparent interest in addressing “public concern,” numerous officials from BLM, DOI, and other agencies within the federal government have exactly the opposite view of hydraulic fracturing and impacts to groundwater. These officials have even testified to Congress – including prior to the May 2012 proposed rule, in the interim between the May 2012 proposed rule and the May 2013 proposed rule, and since the May 2013 proposed rule – that there have been no confirmed cases of hydraulic fracturing impacting groundwater:

- Former Environmental Protection Agency (“EPA”) Administrator Lisa Jackson: There is no “proven case where the fracking process itself has affected water.”¹²
- Former BLM Director Bob Abbey: BLM “has never seen any evidence of impacts to groundwater from the use of fracking technology on wells that have been approved by [BLM]. ... We believe, based upon the track record so far, that it is safe.”¹³
- Former Secretary of the Interior Ken Salazar: “With respect to hydraulic [fracturing], because it occurs so far underground, we don’t know any examples of [impacts] on public lands.”¹⁴
- EPA Administrator Gina McCarthy: “I am not aware of any definitive determinations that would contradict those statements [by Lisa Jackson, referenced above].”¹⁵
- Acting BLM Director Neil Kornze: “I don’t think we are aware of any clear approving cases.”¹⁶

¹¹ See, e.g., *NRDC v. SEC*, 606 F.2d 1031, 1053 (D.C. Cir. 1979).

¹² Pain at the Pump: Policies that Suppress Domestic Production of Oil and Gas: Hearing Before the H. Comm. on Oversight & Gov’t Reform, 112th Cong. (May 24, 2011). Administrator Jackson reiterated this belief in an April 27, 2012 interview, stating “in no case have we made a definitive determination that the fracking process has caused chemical contamination of groundwater.” See http://www.youtube.com/watch?v=_tBUTHB_7Cs&feature=youtu.be (last visited July 25, 2013).

¹³ Challenges Facing Domestic Oil and Gas Development: Review of Bureau of Land Management/U.S. Forest Service Ban on Horizontal Drilling on Federal Lands: Hearing before the Subcomm. on Energy and Mineral Resources of the H. Comm. on Natural Resources and the Subcomm. on Conservation, Energy and Forestry of the H. Comm. on Agriculture, 112th Cong. (July 8, 2011).

¹⁴ The Future of U.S. Oil and Natural Gas Development on Federal Lands and Waters: Hearing Before the H. Comm. on Nat. Res., 112th Cong. (Nov. 16, 2011).

¹⁵ Questions for the Record, Gina McCarthy Confirmation Hearing: Hearing Before the S. Comm. on Env. and Pub. Works, 113th Cong. (April 29, 2013), available at http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=9a1465d3-1490-4788-95d0-7d178b3dc320.

- Secretary of the Interior Sally Jewell: “I’m not aware of documented cases.”¹⁷
- EPA Senior Advisor Ken Kopocis: “No, I am not [aware of documented cases].”¹⁸
- Secretary of Energy Ernest Moniz: “To my knowledge I still have not seen any evidence of fracking, per se, contaminating groundwater.”¹⁹

Moreover, a significant body of both government and private research, including DOI’s own research finalized since the original May 2012 proposed rule, continues to show that there are no documented cases of hydraulic fracturing contaminating groundwater, from the Marcellus Shale to California. Such major studies include:

- Ground Water Protection Council, “State Oil and Gas Agency Groundwater Investigations and their Role in Advancing Regulatory Reforms, a Two-State Review: Ohio and Texas” (August 2011) (for “over 16,000 horizontal shale gas wells, with multi-staged hydraulic fracturing stimulations,” not “a single groundwater contamination incident resulting from site preparation, drilling, well construction, completion, hydraulic fracturing stimulation, or production operations at any ... horizontal shale gas well[]” from 1983-2007 in Ohio and from 1993-2008 in Texas)²⁰
- CardnoENTRIX, “Hydraulic Fracturing Study PXP Inglewood Oil Field” (Oct. 10, 2012) (“Before-and-after monitoring of groundwater quality in monitor wells did not show impacts from high-volume hydraulic fracturing,” among other findings of no environmental or health impacts, for 1,000 acre oil field in Los Angeles County, the largest urban contiguous oil field in the country)²¹
- U.S. Geological Survey and Duke University, et al., “Shallow Groundwater Quality and Geochemistry in the Fayetteville Shale Gas-Production Area, North-Central Arkansas, 2011” (Jan. 9, 2013) (for 127 shallow drinking water wells in Fayetteville Shale in

¹⁶ The FY 2014 Budget Request for the Bureau of Land Management: Hearing Before the Subcomm. on Interior, Environment, and Related Agencies of the H. Comm. on Appropriations, 113th Cong. (May 7, 2013).

¹⁷ The Department of the Interior Operations, Management, and Rulemaking: Hearing Before the H. Comm. on Nat. Res., 113th Cong. (July 17, 2013).

¹⁸ Hearing on the Nominations of Kenneth Kopocis to be Assistant Administrator for the Office of Water of the U.S. Environmental Protection Agency (EPA), James Jones to be Assistant Administrator for the Office of Chemical Safety and Pollution Prevention of the EPA, and Avi Garbow to be General Counsel for the EPA: Hearing Before the S. Comm. on Env. and Pub. Works, 113th Cong. (July 23, 2013).

¹⁹ Amy Harder, “Moniz: Natural Gas Will Need Carbon-Capture ‘Eventually,’” NAT’L J. (Aug. 1, 2013), *available at* <http://www.nationaljournal.com/energy/moniz-natural-gas-will-need-carbon-capture-eventually-20130801>.

²⁰ *Available at* <http://www.gwpc.org/sites/default/files/State%20Oil%20%26%20Gas%20Agency%20Groundwater%20Investigations.pdf>.

²¹ *Available at* http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=9a1465d3-1490-4788-95d0-7d178b3dc320.

Arkansas, “shale gas development, at least in this area, has been done without negatively impacting drinking water resources.”)²²

- Samuel Flewelling, et al., “Hydraulic Fracture Height Limits and Fault Interactions in Tight Oil and Gas Formations” (July 26, 2013) (for over 12,000 hydraulic fracturing simulations across North America, “[d]irect hydraulic communication between tight formations and shallow groundwater via induced fractures and faults is not a realistic expectation”)²³

Additionally, the preliminary results of an ongoing U.S. Department of Energy study of drinking water aquifers in the Marcellus Shale in western Pennsylvania have reportedly shown no evidence of contamination from hydraulic fracturing fluids.²⁴

BLM has now had an additional year to review and analyze available data on hydraulic fracturing as compared to when it issued the May 2012 proposed rule, yet BLM has not included any new data on groundwater impacts to justify this proposed rule. If anything, the various statements and scientific studies, new and revised state laws and regulations regarding hydraulic fracturing,²⁵ and new and revised industry standards and best practices²⁶ developed during the past 15 months and available to BLM, support the conclusion that the proposed rule has little if any legal or factual support.

The foregoing only reinforces the fundamental objection repeatedly raised by API and others in response to both the May 2012 proposed rule and the current proposed rule. For over sixty years, over 1 million oil and gas wells have been hydraulically fractured without a single demonstrated instance of the fracturing process affecting groundwater. According to BLM about 90% of the wells on Federal and Indian lands are now stimulated using hydraulic fracturing operations.²⁷ Any final rule that would apply new regulatory burdens to hydraulic fracturing on federal and Indian lands should be based on risks, if any, that are actually demonstrated to arise from the use of hydraulic fracturing, as demonstrated in scientifically sound, transparent studies, rather than on unsubstantiated concerns.²⁸ In short, absent findings that substantiate the existence of such

²² Available at <http://pubs.usgs.gov/sir/2012/5273/sir2012-5273.pdf>.

²³ Available at <http://onlinelibrary.wiley.com/doi/10.1002/grl.50707/abstract>.

²⁴ See, e.g., Kevin Bagos, “DOE Study: Fracking Chemicals Didn’t Taint Water,” Associated Press (July 19, 2013), available at <http://bigstory.ap.org/article/ap-study-finds-fracking-chemicals-didnt-spread>.

²⁵ See, e.g., Ohio S.B. 315 (enacted June 11, 2012), N.C. S.B. 820 (enacted July 2, 2012), proposed amendments to ALASKA ADMIN. CODE tit. 20, § 25.283 *et al.* (noticed Dec. 20, 2012), proposed amendments to KAN. ADMIN. REGS. § 82-3-1400 *et al.* (noticed April 12, 2013), amendments to TENN. COMP. R. & REGS. 0400-51 *et al.* (effective May 22, 2013), Illinois S.B. 1715 (enacted June 17, 2013), UTAH ADMIN. CODE r. 649-9-1 *et al.* (effective July 1, 2013).

²⁶ See Section I(c), *infra*.

²⁷ 78 Fed. Reg. 31,638.

²⁸ The language used in the preamble to the proposed rule makes it obvious that BLM views these concerns about groundwater impacts from hydraulic fracturing as hypothetical at best. See, e.g., *id.* at 31,638 (describing hydraulic fracturing’s “potential impacts that it may have on water quality and water consumption”), 31,644 (“potential

risks, BLM has no record to justify the costs and burdens of increased regulation of hydraulic fracturing. If anything, DOI and BLM officials and DOI scientific research have very recently concluded that there are no negative impacts of hydraulic fracturing that warrant additional regulation.

The record developed to date demonstrates that BLM should leave the regulation of hydraulic fracturing to state regulators, which together with existing federal laws, federal regulatory oversight, and use of industry standards and best practices have established a track record that satisfies all of the objectives of the proposed rule. Continuing to proceed with this new rulemaking in the absence of any factual or scientific basis – or in this case, in direct opposition to what the factual and scientific record actually reflects – is arbitrary and capricious.

b. The Federal Land Policy and Management Act Does Not Compel BLM to Further Regulate Hydraulic Fracturing

BLM appears to assert that FLPMA requires BLM to promulgate new rules applicable to hydraulic fracturing “so as to prevent unnecessary or undue degradation” of public lands.²⁹ API seriously questions the factual and legal bases for this proposition.

In FLPMA, Congress recognized the fundamental need to manage public lands in accordance with the principles of multiple use and sustained yield. In its grant of authority to BLM to implement this mandate, Congress instructed BLM to issue regulations and take other actions only as “*necessary* to prevent unnecessary or undue degradation of the lands.”³⁰ The statute expressly limits BLM’s authority to only those actions that can be shown to actually cause

impacts”), 31,651 (“potential problems”), 31,654 (“potential failures”), 31,663 (“the potential benefits of the rule are more challenging to monetize”; “The potential events described, if they occur at all, may be in the distant future.”), 31,664 (“potential risks of hydraulic fracturing operations”), 31,666 (“potential effects”).

The BLM’s skeptical view of any actual impacts of hydraulic fracturing was also recently echoed by the EPA, which BLM notes in the preamble is currently engaged in its own study on the impacts of hydraulic fracturing on drinking water sources, in its denial of a request for rulemaking applicable to chemicals used in hydraulic fracturing under Section 4 of the Toxic Substances Control Act:

Nor have the petitioners shown that any specific chemical substance or mixture enters or may reasonably be anticipated to enter the environment in substantial quantities or that there is or may be significant or substantial human exposure to any specific chemical substance or mixture. Individual chemical substances and mixtures used in E&P operations may well be produced and released in small volumes. ... [I]t is also likely that many are benign

Chemical Substances and Mixtures Used in Oil and Gas Exploration or Production; TSCA Section 21 Petition; Reasons for Agency Response, 78 Fed. Reg. 41,769, 41,770 (July 11, 2013).

²⁹ 78 Fed. Reg. 31,640, 31,644-65.

³⁰ 43 U.S.C. § 1732(b) (emphasis added). DOI has interpreted “unnecessary or undue degradation” to mean the occurrence of “something more than the usual effects anticipated” from appropriately mitigated development. *Biodiversity Conservation Alliance*, 174 IBLA 1, 5-6 (2008).

degradation beyond what is reasonably anticipated; it does not authorize actions that are merely directed towards hypothetical “potential” impacts.

BLM has never issued regulations defining what “unnecessary or undue degradation” means in the context of upstream oil and gas operations. Thus, BLM has no discernible standard upon which to base its conclusion that further federal regulation of hydraulic fracturing is necessary to prevent unnecessary or undue degradation. Moreover, the Interior Board of Land Appeals and federal courts have placed limits on BLM’s application of the unnecessary or undue degradation standard in the context of oil and gas development so as not to include any and all conceivable environmental impacts from typical operations. In essence, development that utilizes accepted and sound procedures and complies with all applicable federal and state requirements does not result in unnecessary or undue degradation. This conclusion is consistent with BLM’s regulatory definition of the term in other mineral extraction contexts, as well as other binding Departmental definitions.³¹

Additional BLM regulation cannot be justified as necessary to prevent unnecessary or undue degradation without actual evidence that adverse impacts will occur absent such additional regulation. BLM itself has recently made this very argument: “Without evidence that future injury will occur, it cannot be argued that degradation of the lands will occur, or that the future degradation could have been prevented if only BLM had incorporated [new] policies into the subject leases at the lease sale stage, or that the future degradation is unnecessary or undue.”³² That rationale applies equally here.

Therefore, to adopt further regulation of hydraulic fracturing activities on public lands under FLPMA, BLM must affirmatively establish a record demonstrating unnecessary or undue contamination resulting from those activities, now and in the future. BLM has failed to make this threshold showing. BLM acknowledges that the development of oil and gas resources on federal and Indian lands involves the use of hydraulic fracturing roughly 90% of the time,³³ but offers no evidence of any degradation, let alone unnecessary or undue degradation, caused by hydraulic fracturing under the current federal and state regulatory regime.

In addition, it is well established that it is “inherent in most statutory schemes” that agencies may “overlook circumstances that in context may fairly be considered de minimis” as “the law does not concern itself with trifling matters” that “mandate pointless expenditures of effort.”³⁴ “The

³¹ See 43 C.F.R. § 3809.5 (mining); Solicitor’s Opinion M-37007, *Surface Management Provisions for Hardrock Mining*, at 31-32 (Oct. 23, 2001).

³² *Wyoming Outdoor Council*, 171 IBLA 108, 121-22 (2007) (internal quotation marks and citations omitted). See also *Colorado Env’t Coalition*, 165 IBLA 221, 229 (2005) (similar interpretation in oil and gas context, and noting oil and gas development is “an activity where some level of environmental degradation is to be expected”); cf. *Theodore Roosevelt Conservation P’ship v Salazar*, 661 F.3d 66 (D.C. Cir. 2011) (“FLPMA prohibits only unnecessary or undue degradation, not *all* degradation.”) (emphasis in original).

³³ 78 Fed. Reg. 31,638 (“Hydraulic fracturing is a common and accepted practice, and has been, in oil and gas production for decades.”).

³⁴ *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979).

ability ... to exempt de minimis situations from a statutory command is not an ability to depart from the statute, but rather a tool to be used in implementing the legislative design.”³⁵ In other words, given that BLM can only muster “potential” impacts to justify the proposed rule, without reference to specific examples of impacts or scientific analysis that supports a reasonable likelihood of impacts occurring, the increased regulation of hydraulic fracturing can be viewed, at most, as a “de minimis situation” within the much larger context of oil and gas development that need not be regulated in an overly burdensome way in order to carry out the directives of Congress.³⁶ Limited BLM resources must be directed towards preventing incidents actually known to degrade public lands, not regulating activities that happen to be in the public eye but lack documented risks.

c. There Is No Regulatory Void That BLM Must Fill

As BLM acknowledges throughout the preamble, onshore oil and gas development, including hydraulic fracturing, well construction, mechanical integrity, well monitoring, and fluid management and additive disclosure, is already strictly regulated by the federal government, state governments, and industry standards and best practices. Indeed, it is thanks in no small part to these three sources of overlapping but fundamentally complementary and consistent controls that production of oil and gas through the use of hydraulic fracturing boasts the exemplary safety and environmental record described above. In comments to the May 2012 proposed rule, API and others asked BLM to conduct a gap analysis of existing regulations and standards to determine whether and where additional federal regulation of onshore oil and gas development was justified. BLM has not conducted this analysis. Accordingly, API believes that BLM has failed to justify that there is a regulatory void that the proposed rule must fill. In fact, because the proposed rule significantly conflicts with existing federal and state regulations, its adoption would *create* regulatory uncertainty and confusion. Such uncertainty would very likely delay development or drive it off of federal lands, and could even reduce the overall safety of oil and gas development on federal lands.

To use just one example, the proposed rule directly conflicts with Onshore Oil and Gas Order Number 2, Drilling.³⁷ Specifically, the proposed rule defines “usable water” differently from how it is defined in Onshore Order 2. Onshore Order 2 defines “usable water” as “generally those waters containing up to 10,000 ppm of total dissolved solids.” Proposed amended 43 C.F.R. § 3160.0-5 begins with this language, but adds four new categories of geologic zones “deemed to contain usable water,” as well as three new categories “deemed not to contain usable

³⁵ *Id.*

³⁶ Given that hydraulic fracturing is a well stimulation technique that takes place in a matter of days over the decades-long life of an individual well, it can also be fairly viewed as a de minimis aspect of the overall process of oil and gas development on public lands, especially in light of (indeed, because of) the anemic record offered by BLM.

³⁷ 53 Fed. Reg. 46,790 (Nov. 18, 1988), as amended (hereinafter “Onshore Order 2”).

water.”³⁸ Because the proposed rule requires operators to “isolate all usable water and other mineral-bearing formations and protect them from contamination,”³⁹ any operator who plans to fracture a new well or refracture an existing well will need to decide which BLM definition of “usable water” applies to its proposed operation. The proposed rule gives no indication as to which definition of “usable water” should control; in fact, the preamble notes that “[t]his rule would *supplement* existing regulations regarding wellbore construction,” specifically mentioning Onshore Order 2.⁴⁰ A contradictory definition cannot “supplement” something that it contradicts. At best, it is an alternative definition that requires further explanation of the circumstances in which it will apply.

The conflicting definitions of “usable water” are one example of where additional federal regulation is not only unnecessary, but also creates significant confusion and uncertainty about which of the two conflicting rules operators are required to follow. Does Onshore Order 2’s definition apply to fracturing of wells permitted prior to the effective date of a final rule? This would seem to be a fair reading of the word “supplement” used by BLM in the preamble, yet by affirmatively sweeping “refracturing” into the scope of the proposed rule, BLM seems to have abrogated Onshore Order 2 as it applies to hydraulically fractured wells (which amount to 90% of the wells on public lands). If this is BLM’s intent, why not simply amend Onshore Order 2, as it is currently doing with Onshore Orders 3, 4, and 5?

Regardless of the facts that hydraulic fracturing is already regulated by BLM, and environmental and other aspects of onshore oil and gas development are already regulated by EPA, DOI, the Occupational Safety and Health Administration, the Department of Transportation, and other federal agencies, another fundamental flaw in the premise of the proposed rule is that onshore oil and gas development is an area historically and primarily overseen by the states. Simply put, BLM has failed to assert, let alone provide any record evidence, that any specific existing federal or state regulation is inadequate to protect federal and Indian lands. BLM not only concedes, for example, that “states[] like Colorado, Wyoming, Arkansas, and Texas[] have issued their own regulations addressing disclosures and oversight for oil and gas drilling operations,”⁴¹ but includes a provision that would allow for a state-wide variance to be issued where BLM determines state or Tribal regulations meet or exceed the effectiveness of the proposed rule.⁴²

³⁸ 78 Fed. Reg. 31,674.

³⁹ *Id.* at 31,677.

⁴⁰ *Id.* at 31,644 (emphasis added).

⁴¹ A more complete list of states with hydraulic fracturing chemical disclosure requirements is at FN68, *infra*. New or additional disclosure requirements are also being considered in Illinois, North Carolina, Tennessee, and the states listed in FN69, *infra*.

⁴² *See* 78 Fed. Reg. 31,677 (“In cooperation with a State (for federal lands) or a Tribe (for Indian lands), the BLM may issue a variance that would apply to all wells within a State or within Indian lands, or to specific fields or basins within the State or the Indian lands, if the BLM finds that the variance [meets or exceeds the objectives of the regulation for which the variance is being requested].”). API is concerned, however, that this proposed variance would only apply to “operational activities” of the proposed rule and not “the actual approval process” for hydraulic fracturing. *See id.* at 31,660. BLM should clarify what “operational activities” means. Furthermore, BLM should

While this is a positive change if it were to be included in any final rule, BLM's proposed inclusion of the provision corroborates one of API's fundamental objections: states with federal lands are already effectively regulating oil and gas development using hydraulic fracturing, and additional federal regulation is unwise and unnecessary.

Last, strong industry standards, including API standards developed through ANSI-accredited processes, already address the exact issues BLM intends to regulate in the proposed rule. For example, in addition to the API documents cited and relied on by BLM itself, API Standard 65—Part 2 on well construction and cementing goes considerably above and beyond the proposed rule. In fact, API Standard 65—Part 2 has already been incorporated into DOI regulations applicable to offshore drilling operations on the Outer Continental Shelf.⁴³ Similarly, API Guidance Document HF1, cited in the preamble and currently undergoing review,⁴⁴ contains guidance and numerous considerations regarding well casing, logging, and the hydraulic fracturing process itself that are not addressed in the proposed rule. API is currently revising or drafting four other standards specifically related to hydraulic fracturing and associated issues, including the critical issue of community engagement. These are expected by the end of 2013, a date likely to precede any final rule from BLM on hydraulic fracturing. In sum, BLM has failed to present a case that the use of industry standards is inadequate, and given the fact that DOI incorporates by reference many API standards in other parts of its regulations on oil and gas development, including API Standard 65—Part 2, it would be unusual for BLM to assert that they are inadequate for addressing hydraulic fracturing of onshore oil and gas wells.

d. The Proposed Rule Will Only Exacerbate Well-documented Delays in Permitting and Declining Production on Onshore Federal Lands

As API explained in its comments to the May 2012 proposed rule, the industry is deeply concerned about the addition of unjustified new BLM requirements because delays in the issuance of permits to operators have the potential to add hundreds of millions of dollars or more in the aggregate to the cost of developing onshore leases. This cost is borne not only by operators, but ultimately by taxpayers and the federal government in the forms of decreased tax and royalty revenues from production of federal oil and gas resources.

According to BLM data, the number of new federal oil and natural gas leases issued by BLM is down 45% from an average of 3,294 leases in 2005-08, to 1,824 in 2009-12. The number of new permits to drill by BLM is down 32%, from an average of 6,265 permits to an average of 4,269.

allow the variance to also extend to the approval process to eliminate or reduce redundancy with respect to State or Tribe and BLM well permitting requirements. For example, BLM in the preamble cites an existing Memorandum of Understanding with Colorado regarding permitting. *Id.* at 31,645. API believes that BLM should continue to work cooperatively with States and Tribes on both operational as well as approval issues, either through the proposed variance process or through new Memoranda of Understanding.

⁴³ 30 C.F.R. § 250.415(f).

⁴⁴ HF1 will be republished as API RP 100-1.

The number of new wells drilled on federal lands has declined 24%, from an average of 4,209 wells to 3,179. Additional, unnecessary regulation will only accelerate this trend.

The economic downturn starting in 2007 is recognized as a factor contributing to these results. However, if market factors were the sole driver of the federal lands permitting slowdown, it would be reasonable to assume that non-federal drilling permits would generally track the BLM permitting trends. This is not the case. The number of new permits to drill on federal lands in the West is down by a significantly greater amount (39%) than new permits to drill on non-federal lands (20%) from 2009-10. In 2010 alone, non-federal permits across the West actually increased by 31%, even as federal drilling permits dropped 13%. Non-federal oil and gas production increased in 2009-10, even as federal oil production plateaued and federal natural gas production declined in the same time frame. At no time in the previous 25 years had the number of new onshore federal oil and gas leases been lower than the number of new leases issued in 2009 and 2010. Since almost all western oil and natural gas development requires hydraulic fracturing, API is concerned that the implementation of the proposed rule could, by increasing permitting time periods and regulatory uncertainty, delay or prevent new production on federal lands.⁴⁵

These concerns are not industry's alone. A March 2013 Congressional Research Service ("CRS") report concluded that, from fiscal year 2007 through fiscal year 2012, all of the increase in total U.S. oil production took place on non-federal lands, and the federal share of total U.S. crude oil production fell by 7%. Moreover, since 2007, U.S. natural gas production has increased 20% overall, despite production falling on federal lands by 23%. In 2011, it took BLM an average of 307 days to process a permit to drill, up nearly 50% from an average of 218 days in 2006. Not surprisingly, the CRS report notes that as a result, "non-federal lands ... are attracting a significant portion of investment for natural gas development."⁴⁶ The CRS report concluded that "[a] more efficient permitting process may be an added incentive for the industry to invest in developing federal resources, which may allow for some oil and gas to come onstream sooner"⁴⁷

President Obama seemed to echo some of these same concerns in a recent speech on energy policy. He said that "we should strengthen our position as the top natural gas consumer" because, among other reasons, "the bottom line is natural gas is creating jobs."⁴⁸ It is difficult to

⁴⁵ See EIS Solutions, "Employment, Government Revenue, and Energy Security Impacts of Current Federal Lands Policy in the Western U.S." (January 2012), available at http://www.api.org/news-and-media/news/newsitems/2012/jan-2012/~media/Files/Oil-and-Natural-Gas/Exploration/EIS-Solutions-Western-Land-Policy-Jan_2012.ashx.

⁴⁶ Marc Humphries, "U.S. Crude Oil and Natural Gas Production in Federal and Non-Federal Areas," Cong. Research Service (March 7, 2013).

⁴⁷ *Id.* at 10.

⁴⁸ Address at Georgetown University, available at <http://www.whitehouse.gov/photos-and-video/video/2013/06/25/president-obama-speaks-climate-change>.

square the new and unsupported permitting and approval requirements of the proposed rule with recent empirical data on declining oil and gas production and permitting rates on federal lands, the CRS report's recommendation, and the President's own recent statements on developing the nation's natural gas resources.

II. The Proposed Definition of “Usable Water” and Related Protection Requirements Are Arbitrary, Impose Costs Outweighed by Any Purported Benefits, and Are Legally Defective

a. The Proposed Definition Is Overinclusive and Lacks a Factual or Rational Basis

API recognizes that the BLM has attempted to address the concerns raised with the initial definition of “usable water” as waters containing “generally” less than 10,000 ppm TDS. Those concerns fell primarily in two areas: inclusion of waters that are otherwise not fit for use due to contaminants not otherwise addressed by a TDS standard; and lack deference to state and Tribal definition of waters that currently govern well isolation requirements. The new proposed definition does not address these concerns, but rather creates further ambiguity.

After “generally” defining usable water as “waters containing up to 10,000 parts per million (ppm) of total dissolved solids,” the proposed rule creates categories of water that are “deemed” usable: federal drinking water, state drinking water, Tribal drinking water, water used for agricultural purposes, water used for industrial purposes, waters designated by states for isolation, and waters designated by Tribes for isolation. This list of waters overrides the general 10,000 ppm TDS standard. Except in the case where one of these categories includes waters over 10,000 ppm TDS, and API is aware of no water-bearing zone that falls into one of these categories but contains more than 10,000 ppm, all other designations add nothing substantive to the proposed rule because they are already included in the <10,000 ppm TDS standard. API recommends retaining only subsection (4) of the proposed rule as this provision provides appropriate clarity for waters that are not in need of isolation.

As API demonstrated in its comments to the May 2012 proposed rule, a proposed definition of “usable water” that relies entirely on TDS content without taking into account other naturally occurring constituents (such as hydrocarbons, heavy metals, microorganisms, or toxic compounds) would include waters that are otherwise unsuitable for use. The proposed rule would require operators to protect water-bearing zones that would not otherwise be considered a source for water for any application. The proposed definition also fails to consider the depth at which “usable water” may occur or the size of the source, which would also dictate whether such water could ever be used for any purpose (*i.e.*, if water occurs at a depth at which it

uneconomical to drill and produce, it will likely never be “usable”). Such criteria are typical considerations in determining fresh or drinking water definitions. Without a factual record to demonstrate why a TDS criterion should control to the exclusion of almost all others, the proposed definition, if finalized, would be arbitrary and capricious.

API proposes the following revised definition:

Usable water means generally those waters containing up to 10,000 parts per million (ppm) of total dissolved solids.

The following geologic zones are deemed not to contain usable water:

- (1) Zones from which an operator is authorized to produce hydrocarbons;
- (2) Zones designated as exempted aquifers pursuant to the Safe Drinking Water Act; and
- (3) Zones which the State (for Federal lands) or the Tribe (for Indian lands) has no requirement to be isolated or protected from oil and gas operations.

b. The Proposed Definition Would Impose Significant Costs on Operators that BLM Has Ignored

While some of the changes made to the revised proposed definition of usable water as compared to the original May 2012 definition are positive, they are not sufficient. Most importantly, the revised proposed definition would require operators to collect new information regarding aquifers that have little or no potential to be considered future sources of drinking water or water to be used in industrial or agricultural applications. BLM has provided no justification as to why the onus should be on the operator to demonstrate whether or not water is “usable,” in the agency’s view. Moreover, the gathering of such information is better suited for research undertaken by the U.S. Geological Survey, not oil and gas operators at their own expense. In many cases, API believes that operators will not have the data to determine which zones meet the BLM’s criteria for protection because that data simply does not exist. This requirement therefore introduces significant cost and uncertainty, as discussed further below, without providing additional protection to underground sources of drinking water.

The requirement of proposed § 3162.5-2 to “isolate all usable water” is unreasonable. As shown above, the “deemed” usable definitions would require the operator to isolate each and every water bearing formation, regardless of the fact that such isolation may not provide any incremental measure of protection for an agricultural or industrial user. Further, the requirement has no rational relationship to the location of an oil or gas well relative to a water user. If a water-bearing formation is miles away from the user and has no potential to affect the user, the

proposed rule nevertheless requires an operator to isolate the zone. The proposed rule should require isolation of water zones so as to protect existing users within a distance that could reasonably be affected by the well. The groundwater monitoring regulations recently adopted in Colorado use a distance of one-half mile. BLM should adopt a similar limit with regard to its requirement to isolate “usable water.”

The ARI report analyzed the cost implications of BLM’s proposed requirement to isolate “usable water”-bearing zones. ARI concluded that determining whether “usable water” was present in a field could cost up to an additional \$400,000, plus up to an additional \$776,000 per each individual well in cementing and casing to meet the new requirement, depending on the location and other characteristics of the well.⁴⁹ BLM completely ignores these potential costs in its own analysis, stating that “BLM already requires casing and cementing to protect usable water zones that are consistent with the final rule. Therefore, the rule does not pose an additional burden to operators.”⁵⁰ This statement assumes, among other things, that the locations of all “usable water”-bearing zones are known (they are not⁵¹), that no existing well that may be fractured or refractured received a variance from or was not otherwise subject to the general 10,000 ppm TDS standard in Onshore Order 2, and that no prospective fractured well would receive a variance from the standard in Onshore Order 2. BLM’s failure to even consider these significant potential costs should be remedied before the proposed rule is finalized because it severely underestimates the true cost that the proposed rule would impose on industry, and calls into question the agency’s entire cost analysis. Regulatory requirements not grounded in sound cost-benefit analyses are exactly the type that the President has sought to prevent.⁵²

c. Applied to Certain Existing Wells on Existing Leases, the Proposed Protection Requirements May Constitute a Breach of Contract

When the United States, through the BLM or other agencies, enters into contracts, its rights and duties are governed generally by the law applied to contracts between private individuals. Thus, when the United States specifically targets and abrogates its contractual obligations, particularly through issuance of new laws or regulations affecting oil and gas lease interests, it can be held liable for breach of contract in the same manner and to the same extent as a private party.⁵³

Here, the proposed rule imposes new obligations on existing BLM lessees beyond what they bargained for in acquiring their lease contracts. It is well-established that BLM leases are contracts between the federal government and lessees entitling the lessees to economically drill

⁴⁹ ARI report, at 19.

⁵⁰ 78 Fed. Reg. 31,662.

⁵¹ See ARI report, at 6-8.

⁵² See, e.g., Executive Order 13,564 (agencies “must” craft regulations “only upon a reasoned determination that [their] benefits justify their costs” and that they “impose the least burden on society”).

⁵³ See, e.g., *Mobil Oil Exploration and Producing Southeast, Inc. v. United States*, 530 U.S. 604 (2000).

for, extract, remove, and dispose of oil and gas resources under their leases. Lessees do not obtain such leases for any purpose other than exploration, development, and production of such resources. The new obligations in BLM’s revised proposed rule specifically target a narrow set of activities that are fundamental to lessees’ ability to economically develop their leases. Because new obligations related to well cementing and monitoring and logging requirements and “all usable water” isolation requirements for existing wells cannot be reasonably implemented without destroying the economic viability of the lease, imposition of these new requirements could constitute a breach of the United States’ contractual obligations with affected leaseholders and expose the government to multiple and significant claims for damages.

d. Applied to Certain Existing Wells on Existing Leases, the Proposed Protection Requirements May Constitute a Regulatory Taking

As described above, the requirement of proposed § 3162.5-2(d) to isolate “all usable water” applies in equal part to future wells as it does to existing wells that may be hydraulically fractured or refractured.⁵⁴ As an initial matter, any additional measures intended to apply to existing wells tend to exacerbate waste of oil and gas resources (as well as diminish royalty receipts) because additional production via hydraulic fracturing, especially from the oldest existing producing wells, is marginal and therefore especially susceptible to premature shut-in due to any unanticipated changes in costs to produce.⁵⁵ Moreover, API believes that where this requirement would require additional casing and cementing in an already constructed well, the proposed rule may constitute a regulatory taking.

The Fifth Amendment to the United States Constitution prohibits governments from taking private property interests “without just compensation.” Courts have consistently recognized that leases—including mineral leases—are valid property interests that can be the subject of a takings claim.⁵⁶ While courts apply two different tests depending on the extent to which a regulation denies the owners the economic benefits of their property, a requirement to protect “usable waters” with respect to fracturing or refracturing of certain existing wells could be a taking under either test.⁵⁷

⁵⁴ See proposed § 3162.3-3(b). Although these comments focus on hydraulic fracturing operations, this provision of the proposed rule as written seems to apply to *all* existing wells, a result that simply cannot be sustained if application to fractured wells only has not been justified by BLM.

⁵⁵ For existing wells (those constructed prior to the effective date of any final rule), compliance with proposed § 3162.3-3(f) (mechanical integrity test) should satisfy the rule requirements for isolation. This is based upon the fact that these wells have been permitted under the existing BLM requirements for the protection of subsurface water resources.

⁵⁶ See, e.g., *Bass Enterprises Production Co. v. United States*, 381 F.3d 1360 (Fed. Cir. 2004).

⁵⁷ See, e.g., *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1015 (1992) (“per se” takings); *Penn Central Transp. Co. v. New York City*, 438 U.S. 104, 124-25 (1978) (takings according to various balanced factors).

e. Applied to Certain Existing Wells on Existing Leases, the Proposed Protection Requirements May Constitute Impermissible Retroactive Rulemaking

As explained in API's comments on the May 2012 proposed rule, with respect to already permitted wells, the proposed rule seeks to apply new rules to an activity that is anything but new, *i.e.*, production of oil and gas from existing wells. In general, U.S. jurisprudence does not favor retroactivity. Indeed, under the Administrative Procedure Act, rules created by administrative agencies are defined as an "agency statement having general or particular applicability and *future effect* designed to implement, interpret or prescribe law or policy...."⁵⁸ Accordingly, rules and regulations are generally not applied retroactively, and the applicability of administrative rules and regulations are limited to the time following their promulgation.⁵⁹ Moreover, Congress typically does not provide administrative agencies authority to create rules that have retroactive effect, and thus rules will have only prospective effect. In light of these issues, at the very least, BLM should provide an exemption from any final rule for already permitted wells

The principle of fair notice should also apply here and counsel against changing legal rules that operators have relied upon in making investments.⁶⁰ Operators have drilled existing wells under the current rules at a set capital expenditure with a reasonable expectation of profit from both primary and secondary objectives encountered in a given well.⁶¹ Indeed, most recompletions are of secondary zones, often with only marginal potential that cannot bear excessive costs to prove commercially viable. Since drilling a new well to produce such zones is also cost prohibitive, otherwise recoverable oil and gas reserves will be left in the ground, a matter of physical and economic waste for both operators and the federal government.

Last, as a practical matter, BLM should consider that long-bore horizontal wells are drilled and completed in a single productive horizon with a complex multi-stage fracture, and are seldom refractured. Most "refractures" are single-stage conventional treatments in vertical wells, which pose extremely low risks to groundwater and the environment. Thus, there is no legal justification to impose unduly burdensome retroactive requirements on existing wells at substantial costs to operators, with the likely result of economic and physical waste of oil and gas.⁶² Indeed, there are considerable environmental benefits to stimulating production from

⁵⁸ 5 U.S.C. § 551(4) (emphasis added).

⁵⁹ See, e.g., *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988).

⁶⁰ See, e.g., *Landgraf v. USI Films Prods.*, 511 U.S. 244, 265 (1994) ("Elementary considerations of fairness dictate that individuals should have an opportunity to know what the law is and to conform their conduct accordingly....").

⁶¹ See *AT&T v. FCC*, 454 F.3d 329, 332 (D.C. Cir. 2006) ("[J]udicial hackles are raised when an agency alters an established rule defining permissible conduct which has been generally recognized and relied on throughout the industry that it regulates" (quotation omitted)).

⁶² By failing to draw meaningful distinctions between new and existing wells, the proposed rule actually imposes a number of infeasible requirements with respect to existing wells. Pursuant to the proposed rule, operators

existing wellbores rather than drilling and constructing new wells, a benefit of hydraulic fracturing and refracturing that BLM seems to have totally overlooked.

III. The Proposed Definition of “Cement Evaluation Log” and Related Requirements Should Be Revised

While the change from the May 2012 proposed rule to the current proposed rule’s requiring a “cement evaluation log” (“CEL”) as opposed to a cement bond log prior to hydraulic fracturing is a welcome one, API believes the way in which BLM has defined CEL and related requirements raises significant cost issues that the agency did not properly address in its cost-benefit analysis. API would also offer several technical revisions to the proposed definition.

At the outset, as explained in API Guidance Document HF1, which the “BLM’s revised proposed rule is generally consistent with”:⁶³

It is important to remember that the quality of a cement job cannot be fully evaluated without other supporting data. All of the available well information is reviewed thoroughly when assessing the integrity of a well’s cement job. Such information includes drilling reports, drilling fluid reports, cement design and related laboratory reports, open-hole log information including caliper logs, cement placement information including centralizer program, placement simulations and job logs, results of mechanical integrity tests performed on the well, and other information. The effectiveness of a cement seal should also be tested with various hydraulic pressure tests to ensure well integrity.⁶⁴

Stated another way, there is no litmus test that can be used to definitively conclude a cement failure. We would therefore urge the elimination of prescriptive requirements for one particular type of test and instead allow operators to demonstrate the integrity of a cement job through

performing hydraulic fracturing or refracturing operations must submit certain information to the BLM prior to commencement of operations. However, this information is not necessarily available for existing wells, despite those wells having been drilled and completed in compliance with existing regulatory requirements designed to protect useable water. Such information includes, but is not limited to, drill logs required by proposed section 3162.3-3(d)(2) and cement operations monitoring reports required by 3162.3-3(e)(1). Indeed, it appears BLM recognized that certain requirements in the proposed rule should apply only to new wells. For example, in the preamble the BLM states that “the running of CELs on surface or intermediate casing strings, which is currently an optional practice, would be required for new wells.” 78 Fed. Reg. 31,646 (emphasis added). However, this clarification is absent from the rule language itself. Accordingly, BLM should clarify in the final rule that certain information will not be required for existing wells, including the information in sections 3162.3-3(d)(2), (e)(1), (e)(2) and (f), on wells drilled before the rule’s effective date.

⁶³ 78 Fed. Reg. 31,639.

⁶⁴ API Guidance Document HF1, Hydraulic Fracturing Operations—Well Construction and Integrity Guidelines, at 10, available at http://www.api.org/~media/Files/Policy/Exploration/API_HF1.pdf. HF1 will be republished as API RP 100-1.

performance standards and adherence to industry best practices. API suggests revising the text of the proposed requirement to run cement evaluation logs to apply only where there are indications that cementing operations were not executed as planned or if there are indications of insufficient returns to surface.

The ARI report analyzed potential costs to implement the requirement for CELs for surface and intermediate casing as currently appears in proposed § 3162.3-3(e)(2). To run a CEL on each casing string that isolates “usable water,” ARI found that the cost for each type well or exploratory well logged by an operator could range from \$24,000 to \$109,000.⁶⁵ BLM’s estimate of \$26,000 is clearly at the extreme low end of this range.⁶⁶ BLM’s estimate is low because it expressly did not consider the associated time delays (including rig delay cost, ancillary equipment such as mud loggers, trailers, tanks, pumps, and generators, as well as personnel costs), which ARI estimated could range from 1 to 5 days depending on the number of casing strings and CELs. In addition, the potential number of cement jobs that BLM would require to be remediated is also unknown. Contributing to this uncertainty, CELs may be interpreted by BLM staff to indicate a potential problem with a cement job when in fact none exists, leading to needless waste of operator time and resources.⁶⁷

If BLM adopts a requirement for unnecessary and costly CELs on surface and intermediate casing prior to hydraulic fracturing, then the agency should incorporate several technical revisions and clarifications to the proposed definition and related proposed subsections. First, the final sentence of proposed § 3162.3-3(d) should be broadened to include any tool used to prepare a CEL as approved by an authorized officer. The comparison of an alternative tool to a cement bond log is unnecessary, vague, and subject to arbitrary and inconsistent determinations of what is a tool that “is at least as effective” as a cement bond log. Second, BLM should clarify that a CEL is not required for conductor casing. Last, proposed § 3162.3-3(e)(4) should have an exception for inadequate cement jobs for which the only remedy is to top-fill cement that has settled in the annulus after curing, and the proposed 48 hour written notification requirement should be expanded to 5 days, as verbal notification will have already been required within 24 hours, and a longer time period will allow operators to provide a more complete report.

IV. The Proposed Chemical Additive Disclosure Provisions Should Be Revised

a. API Strongly Supports the Use of FracFocus for Disclosure

⁶⁵ ARI report, at 19.

⁶⁶ BLM, “Economic Analysis for Hydraulic Fracturing Rule,” at 42.

⁶⁷ ARI report, at 13.

API commends BLM for proposing to use the FracFocus website as a means for disclosure of chemicals used in hydraulic fracturing in proposed § 3162.3-3(i). As noted in our comments on the May 2012 proposed rule, FracFocus is operated by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission, two organizations comprised of state regulators responsible for conservation and environmental protection as they relate to oil and gas activities in their respective states. The purpose of FracFocus is to provide factual information concerning hydraulic fracturing and groundwater protection in a single clearinghouse free of charge to the public. It is the largest provider of public access to reported chemicals used in hydraulic fracturing, and recently has been upgraded with additional features since the release of the May 2013 proposed rule. As of July 24, 2013, FracFocus boasts at least 644 participating companies, with at least 479 having disclosed information to FracFocus covering over 50,000 oil and gas wells across the country, including wells on federal and Indian lands. To help users put this information into perspective, the site also provides information on the hydraulic fracturing process, why certain chemicals are typically used, and the means by which groundwater is protected.

Today, chemical disclosure via FracFocus is required in thirteen states,⁶⁸ and is being considered in at least twelve additional states.⁶⁹ White House Deputy Assistant for Energy and Climate Change Heather Zichal has endorsed FracFocus as “an important tool that provides transparency to the American people.” Ms. Zichal stated there is “no need to create a new means of disclosure at the federal level” and that the Administration is “not looking to duplicate or create another platform that provides a bunch of uncertainty and creates more questions about transparency.”⁷⁰ For all of these reasons, API supports chemical additive disclosure, and we strongly support the use of FracFocus as a means for disclosure.

b. Specific Comments on Proposed §§ 3162.3-3(i)-(j)

Proposed § 3162.3-3(i)(1) is vague and should be revised. The term “used” could be construed to require reporting of chemical ingredients beyond those intentionally added to hydraulic fracturing fluid. This would require extensive and costly testing of fluids for trace chemicals and constituents present in the base fluid (usually water). API suggests that the term “used” be replaced with “intentionally added.” In addition, not all intentionally added chemical constituents have CAS numbers, so BLM should add the phrase “if applicable” to the requirement to provide CAS numbers.⁷¹

⁶⁸ They are Colorado, Louisiana, Mississippi, Montana, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Utah, and West Virginia.

⁶⁹ They include Alabama, Alaska, California, Florida, Kansas, Kentucky, Idaho, Michigan, Nebraska, Nevada, New Mexico, and New York.

⁷⁰ Mike Soraghan, “White House Official Backs FracFocus as Preferred Disclosure Method,” E&E NEWS (June 21, 2012).

⁷¹ Similarly, the requirement to report each chemical trade name, purpose, and ingredients does not make sense because chemicals do not have trade names, purposes, or ingredients. BLM should replace the word “chemical”

BLM apparently believes it has responded to previous comments on these points because it notes that it “did not change the revised proposed rule as a result of these comments because the information required is important to its overall goal of ensuring public safety and environmental protection.”⁷² This rationale does not address the concern. The BLM has not provided justification regarding how this information protects the environment or the public. Requiring extensive testing of the base fluid, which is typically water withdrawn from natural sources such as surface bodies and underground aquifers, does not enhance public safety or promote environmental protection, and thus contributes nothing to achieving BLM’s stated goals. To the extent any chemical constituent is present in these waters, it already exists in the environment and potentially already poses a risk to public safety. Additionally, these goals plainly are not advanced by a requirement to report information that simply does not exist. API again urges BLM to make these relatively simple technical revisions.

The May 2013 version of proposed § 3162.3-3(i)(1) continues to require that the maximum concentration in the additive be reported for all constituents. However, companies do not report to FracFocus the maximum concentrations in additives for non-MSDS ingredients. To require otherwise would result in the disclosure of trade secret information. API suggests the language “maximum ingredient concentration in additive (% by mass)” should be clarified to read “maximum ingredient concentration in additive (% by mass) for MSDS ingredients.”

The certification provisions of the proposed rule, proposed §§ 3162.3-3(i)(7)(ii)-(iii), would require operators to certify the “compliance” of the “hydraulic fracturing fluid” itself. This makes little linguistic or legal sense; legal obligations such as regulatory compliance flow to entities, not to things. Moreover, the chain of custody for any hydraulic fracturing fluid typically contains many entities, to whom various compliance obligations may apply. It is not clear from the proposed rule whether BLM views a failure at any point in this chain of legal obligations to render the treatment fluid “noncompliant,” but the proposed rule asks operators to certify matters of which they may have no actual or constructive knowledge, which the operator may have little or no legal expertise or due diligence resource to evaluate, and which have no bearing on the operator’s activities or existing legal obligations. API urges BLM to delete these provisions. Alternatively, BLM should revise the relevant language in subsections (i)(7)(ii) and (iii) to read: “the use of hydraulic fracturing fluid complied with all applicable permitting and notice requirements as well as all applicable Federal, state, and local laws, rules, and regulations.”

with “additive.” Moreover, while the reporting provisions themselves do not clearly require reporting of ingredients by additive, the preamble includes a sample reporting form that appears to list ingredients by additives. The rules should make clear that ingredients do not have to be tied to individual additives.

⁷² 78 Fed. Reg. 31,658.

BLM partially responded to an earlier similar comment by saying “an operator is responsible for the conduct of every contract service provider on the operator’s well site and lease”⁷³ BLM’s argument is non-responsive because API’s objection is that the proposed requirement is clearly not limited to “conduct ... on the operator’s well site and lease.” As demonstrated above, it requires operators to assume responsibility for virtually all conduct of any number of entities, not just those with whom an operator has privity of contract, and not just at its “well site and lease,” but also upstream of the site to the distribution and supply chain, manufacturing facilities, and beyond. As a basic matter of fairness (indeed, as a matter of due process), BLM should not require operator certification of activity of which it has no actual or constructive knowledge, especially given operators’ potential criminal liability for such certification.

Proposed § 3162.3-3(j) assumes that trade secret information relative to fracture stimulation fluids is only held by operators, and requires an affidavit to show that release of information would harm the operator’s competitive position. That assumption is contrary to the facts. Suppliers and service companies are typically the holders of the majority of this trade secret information. The final rule should not require service and supply companies to submit trade secret information to operators. Instead, the rule should provide that service and supply companies can also withhold trade secret information, as is provided under Colorado law, to use just one example.⁷⁴ Such a provision would not abrogate the operator’s fundamental responsibility for operations at their well sites; it simply acknowledges, as Colorado has done, that the burden of substantiating the trade secret claim (and later, if necessary, defending it) rests with the party who actually owns the trade secret. Likewise, the trade secret affidavit requirements should not require a showing of harm to the *operator’s* competitive position. This provision would essentially eliminate any opportunity for service and supply companies to protect their trade secrets by demonstrating harm to their own competitive positions. API urges BLM to allow service and supply companies to submit their own affidavits under this subsection, subject to a showing of competitive harm to the affiant, where they are the holders of the trade secret information.

In addition to amending the proposed rule so that service companies and chemical suppliers can assert their own trade secret claims, BLM should also amend the related provisions in proposed §§ 3162.3-3(j)(2)-(4) so that these provisions are not limited to operators and apply more generally to the entity that asserts the trade secret claim. For example, proposed § 3162.3-3(j)(4) currently provides that the operator must maintain records of information claimed to be exempt from disclosure for a period of six years. It would not be appropriate for operators to maintain records of service company trade secret information. Rather, such records should be maintained by the entity that asserted the trade secret claim.

⁷³ 78 Fed. Reg. 31,659.

⁷⁴ *E.g., id.* at 31,659-60.

V. The Proposed Rule Does Not Adequately Address Other Issues Previously Raised by API

While API acknowledges that BLM has made several positive changes reflected in the revised proposed rule, a number of significant issues have yet to be addressed by BLM.

a. The Proposed Definition of “Hydraulic Fracturing”

API recognizes and appreciates that BLM has narrowed the scope of the May 2012 proposed rule to apply to “hydraulic fracturing” rather than “well stimulation” broadly. However, for maximum clarity, the definition of “hydraulic fracturing” should reflect that propagated fractures are caused by the application of pressure, as offered in API’s comments on the May 2012 proposed rule. API suggests amending the first sentence of the revised proposed definition to read “Hydraulic fracturing means those operations conducted in an individual wellbore designed to increase the flow of hydrocarbons from the rock formation to the wellbore through modifying the permeability of reservoir rock by fracturing it by application of fluids under pressure.”

b. Challenges by Third Parties

Similarly, API commends BLM for eliminating the multiple track approval process for hydraulically fracturing wells arising out of the May 2012 proposed rule. A single process through which an operator can obtain a permit to drill and authorization for hydraulic fracturing makes sound operational, economic, and legal sense. However, as outlined in our comments on the May 2012 proposed rule, API remains concerned that permits to drill that also contain approvals for hydraulic fracturing will be unfairly subject to administrative challenges and judicial review by third parties opposed to oil and gas development. API believes, at a minimum, that the likely legal costs and substantial delays arising out of these challenges should be included in BLM’s economic analysis of the proposed rule. In addition, API believes that a final rule should provide that third-party protests to individual approved permits to drill should only be allowed with respect to site-specific, technically justified objections, not generalized grievances directed at hydraulic fracturing in the abstract.

c. Water Supply

BLM has not adequately addressed API’s previous comments regarding the submission of information related to water supply. Proposed § 3162.3-3(d)(3) would require the submission of “information concerning the source and location of water supply” as well as “the anticipated access route and transportation method for all water planned for use in fracturing[.]”⁷⁵ BLM

⁷⁵ *Id.* at 31,675.

believes this information will be necessary “to determine the impacts associated with operations.”⁷⁶ BLM asserts that it “does not intent to regulate water use, but instead to acquire information on the water used incidental to oil and gas operations on Federal and Indian lands.”⁷⁷ But it is unclear to API how the information furnished under this proposed subsection would be analyzed by BLM, how non-oil and gas related impacts to water will factor in (if at all), and what BLM proposes to do if and when it determines if any impacts have occurred. Moreover, hydraulic fracturing operations typically require water from multiple sources. While the sources may be known, the water volumes attributable to individual sources may not be readily available, rendering BLM’s “determin[ing] impacts” of questionable accuracy and value.

BLM has ignored API’s previous legal concerns with providing such information.⁷⁸ As BLM is aware, allocation of water rights in the West is a matter of state control. This includes the allocation of water rights on federal and Indian lands. In light of the comprehensive control by states over allocation of waters within their borders, including on federal lands, BLM’s impact determinations could conflict with a state’s ability to allocate its water. For example, it is up to a state to determine whether and what kinds of mitigation are required when a new water right is created or an existing water right is transferred. Also, each state-issued water right identifies the uses to which the water may be applied and the seasons in which the water right may be used. Thus, to the extent BLM seeks to impose mitigation requirements for certain water uses, it may usurp a state’s authority to make this determination in the first instance. In addition, if BLM seeks to use water source and location information to deprive a water user of the ability to use water for a specified purpose (*e.g.*, hydraulic fracturing) or during specified times of the year, BLM would be interfering with and undermining state prerogatives to allocate water use, given that the type of use and season of use are attributes of a state-issued water right, as well as potentially depriving the water user of vested property rights.

d. Criminal Liability

BLM has failed to address API’s previous comments regarding operator criminal liability. Proposed §§ 3162.3-3(e)(4)(i) and 3162.3-3(i)(7) would require signed operator certifications regarding remedial cement jobs, wellbore integrity, and “fluid” compliance. These requirements greatly alter the existing enforcement scheme with respect to oil and gas activity on federal lands. Under federal law, a party that makes a false certification to BLM is subject to criminal penalties. For most other exploration and production operations on public lands, BLM controls the compliance and enforcement framework and issues notices of non-compliance for which civil (as opposed to criminal) enforcement and penalties are imposed. Under these proposed subsections, operators would now be subject to criminal sanctions for improper certifications, an

⁷⁶ *Id.* at 31,648.

⁷⁷ *Id.* at 31, 644.

⁷⁸ Without more, the preamble states that “the revised proposed regulation does not regulate Indian, State, and private water rights.” *Id.*

enforcement approach that goes well beyond what is required to regulate technical well construction and hydraulic fracturing fluid use issues. Because BLM has made no attempt to justify why criminal penalties are necessary to enforce compliance, these requirements would be arbitrary and capricious.

The proposed rule also is not clear with respect to who within an operator must actually sign the required certifications. The certifications required by the two proposed sections are substantively different. One section addresses remedial cementing, and the other section addresses other cement issues, mechanical integrity of casing, well monitoring, flowback storage, and legal compliance related to hydraulic fracturing fluids (among other issues). The two sections encompass fundamentally different and diverse disciplines that are managed in relevant parts by drilling engineers, completion engineers, and other professionals. Different rules, regulations, and industry standards apply to these different disciplines. It would therefore be difficult for an operator to identify a single person with the knowledge and supervision to provide a single certification with respect to both sets of requirements. Given the proposed criminal enforcement implications of these certification requirements, BLM should provide greater clarity regarding who should sign each required certification and why criminal liability should attach to that certification.

Additionally, the term “wellbore integrity,” as used in proposed § 3162.3-3(i)(7), is vague and undefined in the proposed rule. In the preamble, BLM states that “[c]ertification of wellbore integrity would *include* certification of the monitoring requirements proposed [*i.e.*, testing a fracturing string to not less than the maximum anticipated treating pressure minus the annulus pressure applied between the fracturing string and the production or intermediate casing].”⁷⁹ If this is what BLM intends the standard for certifying “wellbore integrity” to be, it should simply state that in proposed § 3162.3-3(i)(7). The use of the word “include” in the preamble, however, would still seem to leave the ultimate determination of compliance with individual BLM officials. For purposes of imposing criminal liability, this vague standard for “wellbore integrity” cannot withstand constitutional scrutiny. The term should be defined in a way that provides sufficient background and explanation to BLM staff, operators, and the public, or it should be deleted from any provisions for operator certification that BLM may ultimately adopt.

e. Variance Revocation

Proposed § 3162.3-3(k)(4) gives BLM an unqualified “right to rescind a variance or modify any conditions of approval.”⁸⁰ As API previously commented, this subsection should be deleted

⁷⁹ *Id.* at 31,659, 31,676 (emphasis added). API also opposes a requirement to pressure test the fracturing string. Required pressure monitoring of the fracturing string during the hydraulic fracturing process itself is sufficient to achieve BLM’s stated goals regarding wellbore integrity, and BLM has made no attempt to justify a requirement for pressure testing fracturing strings.

⁸⁰ *Id.* at 31,677.

because it would totally defeat the reliance interests of operators in validly obtained and approved variances. Removing this subsection is all the more critical for this revised proposed rule as compared to the May 2012 proposed rule because now BLM may issue a State-, Tribe-, field-, or basin-wide variance potentially encompassing hundreds of wells. In the alternative, BLM should be required to notice its intent to rescind or modify a variance in writing, provide operators at least 30 days to respond, and provide that any final decision on variances not become effective until at least 30 days after receipt by the operator.

f. Documentation and Explanation of “Deviations”

Proposed § 3162.3-3(i)(6) requires operators to “document[] and explain[]” where “the actual operations deviate from the approved plan.”⁸¹ As API previously explained, this requirement is vague and would impose significant and unnecessary administrative burdens on both operators and BLM. The proposed rule offers no explanation as to what constitutes a deviation and whether, when, and why a deviation would be deemed significant to warrant documentation and explanation. For example, if an operator uses a slightly different volume of water than planned, would this constitute a “deviation,” and if so, why would it require documentation and explanation? There are clearly many additional possibilities in terms of what could be a considered a deviation, including date and time of operations, fluid composition, and other operational considerations. BLM must clearly articulate what constitutes a deviation and whether, when, and why it would warrant documentation and explanation.

g. Use of Diesel Fuels in Hydraulic Fracturing Fluids

Although the proposed rule does not attempt to regulate the use of diesel fuels in hydraulic fracturing, BLM should correct language in the preamble on this issue, which API has previously discussed at length in comments on EPA’s draft guidance regarding use of diesel fuels in hydraulic fracturing.⁸² BLM states that “[o]wners and operators who inject diesel fuels during hydraulic fracturing related to oil and gas operations must obtain a UIC permit before injection begins.”⁸³ At a minimum, this statement is far too broad as EPA would have no authority to permit a UIC well in a jurisdiction with primacy over Class II injection wells. And as API argued in its comments to EPA, EPA does not now and should not in the future require UIC permits for hydraulic fracturing using diesel fuels. BLM should correct this language in the preamble to any final rule.

⁸¹ *Id.* at 31,676.

⁸² Erik Milito, “Comments on EPA Notice: Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels - Draft: Underground Injection Control Program Guidance #84,” (Aug. 23, 2012), *available at* <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-1013-2463>.

⁸³ 78 Fed. Reg. 31,646.

VI. BLM Should Allow Flexibility in the Use of Storage Tanks Versus Lined Impoundments

BLM has requested comment “on whether the rule should require flowback fluids to be stored only in closed tanks” or permit storage in lined impoundments.⁸⁴ API supports a flexible approach to the use of closed storage tanks versus lined impoundments. Flexibility is consistent with existing industry practices and API Recommend Practice 51R, as BLM acknowledges,⁸⁵ and with state requirements. API also agrees that use of either closed storage tanks or lined impoundments would be consistent with BLM’s obligations under FLPMA. Furthermore, API is concerned that an overly proscriptive final rule would have the potential to further drive up costs of production on federal lands, discourage further technological advancements, and that BLM has not considered potential safety considerations associated with the use of closed storage tanks. To the extent that a final rule does not permit flexibility, API does not support a regulatory requirement for the use of closed storage tanks.

VII. There Should Be No Regulatory Distinction Made Between “Flowback” and “Produced Water”

BLM has also requested comment on whether “an appropriate distinction” can be made in a final rule between “flowback” and “produced water.”⁸⁶ API understands that generally speaking, and in the context of this proposed rule, the term “flowback” refers to all non-gaseous fluids emplaced in a well that later return to the surface. “Flowback” would include, for example, hydraulic fracturing fluids as well as water and other fluids produced from a target formation. Similarly, API understands the term “produced water” in this context to refer only to water produced from a target formation after a well has been drilled and/or stimulated.

API does not support a regulatory distinction between “flowback” and “produced water.” As an operational matter, it is difficult if not impossible to differentiate between “flowback” and “produced water.” From an environmental perspective, there is no difference in protecting federal and Indian lands from discharges of “flowback” as compared to “produced water.” Nor has BLM attempted to justify such a distinction on the record.

If BLM decides to make such a regulatory distinction in a final rule, API proposes the following definitions: “Flowback” means the act of fluids returning to the surface from the formation after hydraulic fracturing operations; and “Produced Fluids” means fluids that exit the wellbore

⁸⁴ *Id.* at 31,656.

⁸⁵ *Id.* at 31,655.

⁸⁶ *Id.* at 31,655-56.

following a hydraulic fracturing operation that may contain a combination of water and reservoir fluid.

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For the reasons explained above, BLM’s adoption of the identified problematic provisions in the revised proposed rule would be arbitrary and capricious. However, the changes made between the initial proposed rule and the supplemental proposed rule are improvements, assuming those changes are carried over to any final rule. As described above, API supports the BLM’s attempts to draft a more workable proposed rule, including the narrowing of its application to “hydraulic fracturing,” elimination of multiple regulatory approvals, elimination of unnecessary certification requirements prior to undertaking fracturing operations, the option to use CELs in place of cement bond logs, elimination of the requirement for operators to provide the estimated chemical composition of flowback fluids, and the provisions for disclosure of hydraulic fracturing chemicals via FracFocus and for protection of trade secrets. However, for the foregoing reasons, API also strongly urges BLM to continue to reconsider certain aspects of the revised proposed rule. Should you have any questions, please feel free to contact Richard Ranger at (202) 682-8057 or by email at rangerr@api.org.

Best regards,



Erik Milito

Group Director, Upstream and
Industry Operations

Attachment: “Challenges Associated with Assessing Impacts of BLM Proposed Rule: Hydraulic Fracturing on Federal and Indian Land, RIN 1004-AE26”, Advanced Resources International, Inc. June 2013.