Institute *for*
Policy Integrity
NEW YORK UNIVERSITY SCHOOL OF LAW

September 25, 2017

To: Steven Wells, Chief, Fluid Minerals Division, BLM

Subject: Comments on Rescission of a 2015 Rule on Hydraulic Fracturing on Federal and Indian Lands, BLM-2017-001

The Institute for Policy Integrity at New York University School of Law[1] respectfully submits the following comments on BLM's proposed rescission of its 2015 rule on hydraulic fracturing.

In proposing to rescind its two-year-old rule for managing hydraulic fracturing operations on federal and tribal lands, BLM fails to explain why the rescission's estimated cost savings to industry justify the forgone benefits, such as environmental protection and avoided remediation. These comments focus largely on BLM's proposed rescission of requirements for above-ground storage tanks, but the criticisms of BLM's analysis apply to the entire rescission. Specifically:

- BLM fails to consider the evidence on fluid storage risks before making conclusory and false statements that the forgone benefits of the rule are "marginal."
- BLM fails to sufficiently explain why changed circumstances in the last two years have altered the cost-benefit justification of the 2015 rule's storage tank requirements.
- BLM fails to address important categories of forgone benefits, including cost savings that the 2015 rule would have delivered to industry such as reduced reclamation costs, increased worker safety, reduced long-term monitoring costs, and reduced liability from environmental impacts, among others.

BLM Makes Conclusory and False Statements on the Rescission's Cost-Benefit Justification

BLM's unsubstantiated assumptions about cost savings compared to forgone benefits are central to its justification for the proposed rescission. BLM justifies the rescission based on its "belie[f] that the 2015 final rule unnecessarily burdens industry with compliance costs and information requirements that are duplicative."[2] Specifically, BLM estimates about $14-34 million in avoided compliance costs, while asserting that any forgone benefits are "likely to be marginal."[3] BLM concludes that rescission is warranted because "the cost savings would exceed the forgone benefits."[4]

As BLM's assertions about cost savings and forgone benefits are central to its justification for the proposed rescission, those assertions are subject to arbitrary and capricious review. BLM must "articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made."[5] Here, BLM concludes—without any satisfactory explanation—that

[1] This document does not purport to present New York University School of Law's views, if any.

[2] 82 Fed. Reg. 34,464, 34,465 (July 25, 2017).

[3] *Id.* at 34,468; BLM, Regulatory Impact Analysis for the Proposed Rule to Rescind the 2015 Hydraulic Fracturing Rule, 3 (2017) [hereinafter "Rescission RIA"].

[4] Rescission RIA at 50.

[5] *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *see also Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012) ("[W]hen an agency decides to rely on a cost-benefit analysis as part of its rulemaking, a serious flaw undermining that analysis can render the rule unreasonable.").

forgone benefits would now be marginal and less than cost savings, when only two years ago BLM concluded just the opposite.

BLM now tries to shift the blame onto its younger self, accusing the agency of, two years ago, "assert[ing] without justification or quantification" that the 2015 rule "would result in a reduction of the risks associated with hydraulic fracturing operations."[6] To the contrary, in 2015 BLM relied on public comments that introduced into the record thorough evidence about the benefits of, for example, above-ground storage tanks. For instance, public comments cited "numerous studies" that "identified flowback and produced water pits as one of the most common sources of environmental pollution from oil and gas operations. These pits pose a great risk to health and the environmental even when they are lined. They can endanger surface water, groundwater, air, soil, and wildlife."[7] In the 2015 rule, BLM discussed the comments, noting that comments in favor of tanks presented claims of environmental benefits, while comments against tanks focused on cost.[8] BLM did not mention any comments that suggested tanks would not have environmental advantages. After reviewing all the comments, in 2015 BLM concluded, based on the evidence in the record, that "the storage of flowback, or recovered fluid in pits, poses a risk of impacts to air, water, and wildlife" and that the rule should therefore require "storage of recovered fluids in rigid enclosed, covered, or netted and screened above-ground tanks."[9] In short, BLM articulated a reasoned justification in 2015 for the storage tank requirement. The agency now proposes to rescind that same requirement without addressing the evidence from the 2015 record or offering any explanation for why a tank requirement would no longer deliver important environmental benefits.

As for quantification of risk reductions, in 2015 BLM explained that while precise risks are currently unquantifiable, "it is generally recognized that tanks carry less risk onsite."[10] However, in 2012, BLM's preliminary analysis attempted to value the risk reduction. Comparing a proposed requirement for either tanks or lined pits against an alternative that did not require tanks or lined pits, BLM estimated that requiring tanks or lined pits[11] would provide additional monetized benefits of $11.7-$41.3 million per year compared to the alternative of not requiring them, using the avoided cost of remediation as a proxy for the environmental and health benefits of reduced surface and subsurface contamination.[12] Ultimately, in 2015 BLM concluded that existing data was insufficient to produce a reliable quantitative estimate of benefits, but BLM's expert judgment, based on the evidence before it, never wavered: the risk reduction offered by the tank requirement was real and valuable.[13] In 2015, in response to commenters' arguments that the rule was not economically justified and that benefits did not exceed costs, BLM responded that the 2015 rule was "prudent," "necessary," and "common-sense," and that the rule's "burden should be minimal."[14] In its proposed rescission, BLM never sufficiently explains why

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[6] Rescission RIA at 3.

[7] Comment from Amy Mall, NRDC, et al., to BLM, on Proposed Rule on Oil and Gas; Well Stimulation, Including Hydraulic Fracturing, on Federal and State Lands, Sept. 10, 2012, at 45, *available at* https://www.regulations.gov/document?D=BLM-2012-0001-7497 [link to HF Comment NRDC Amy Mall].

[8] 80 Fed. Reg. 16,127, 16,162 (Mar. 26, 2015).

[9] *Id.* at 16,163.

[10] *Id.* at 16,204.

[11] Note that in 2012, BLM was considering requiring a choice of tanks or lined pits; by the 2015 rule, BLM had concluded that tanks had significant environmental advantages over lined pits, and no longer allowed use of lined pits.

[12] BLM, Well Stimulation Proposed Rule; Economic Analysis and Initial Regulatory Flexibility Analysis, table 5, & p32 (2012), *available at* https://www.regulations.gov/document?D=BLM-2012-0001-0003. The range given above reflects the estimates at a 3% discount rate, comparing benefits of the proposed regulation (maximum of $50.27 million per year) with benefits of the alternative with "no requirement for lined pits" (maximum of $8.99 per year).

[13] 80 Fed. Reg. at 16,188-16,189.

[14] *Id.*

those same prudent, common-sense requirements, deemed necessary to environmental protection after weighing compliance costs, are now suddenly unnecessary.

In fact, even today BLM continues to admit that rescinding requirements like the storage tank standard will create "the potential for incremental environmental harm," as "allowing pits could increase the potential risk to surface and groundwater resources through spills and contamination. Compared to pits, tanks better isolate recovered fluids from contamination by surface sediments and allow for visual inspection to ensure that no leaks are occurring."[15] BLM also admits that the 2015 rule's expected qualitative benefits—namely, "additional assurance that operators conduct hydraulic fracturing in an environmentally sound and safe manner; reduce the potential risks to surface and groundwater resources; and increase public awareness and understanding of these operations"[16]—"would be forgone" as a result of the rescission.[17]

Nevertheless, BLM now concludes that "the cost savings [of rescission] would exceed the forgone benefits. In other words, the forgone benefits are not in excess of the compliance costs that the 2015 final rule would have imposed."[18] Because of "other Federal authorities, the increased prevalence of state and tribal laws and regulations to address hydraulic fracturing, and new industry practices," the agency now "believes that the requirements imposed by the 2015 final rule are redundant" and concludes that "[a]ny incremental benefit that the 2015 rule provided in addition to existing federal, state, and tribal regulations and industry standards has heretofore been undemonstrated and likely to be marginal."[19]

BLM's entire justification for rescinding the tank requirement and the rest of the 2015 rule hinges on the alleged new federal, state, and tribal regulations and new industry standards. As shown in the next section of these comments, BLM offers insufficient evidence of such changed circumstances.

BLM Offers Insufficient Evidence that Changed Circumstances Have Completely Displaced the Benefits of a Federal Tank Requirement

As described above, BLM suggests that any forgone benefits are "likely to be marginal" because of "other Federal authorities, the increased prevalence of state and tribal laws and regulations to address hydraulic fracturing, and new industry practices." BLM asserts no new federal authorities pertaining to storage tank requirements[20] and concedes both that the use of tanks is "not specified as an industry recommended practice by the API [American Petroleum Institute]" and that the 2015 rule "exceeds industry guidance" and is consistent only with "the voluntary practices of *some* operators."[21] BLM must

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[15] Rescission RIA at 43. The Rescission RIA simultaneously gainsays this admission by alleging—without evidence or context—that using tanks carries its own environmental harms (such as transportation-related impacts and reduced ability to recycle recovered fluids into beneficial uses). *Id*. In fact, in 2015 BLM explained that tanks reduced the cost of recycling recovered fluids into beneficial uses. BLM, Regulatory Impact Analysis for Hydraulic Fracturing Rule, 75 (2015).

[16] *Id.* at 3; *accord*. *Id.* at 49.

[17] *Id.* at 49-50. "Due to this proposed rule, we would not expect a reduction in the risks associated with hydraulic fracturing operations, a reduction in the risks to surface and groundwater resources, or increased public awareness and understanding of hydraulic fracturing operations." *Id.* at 50.

[18] *Id.* at 50.

[19] *Id.* at 3.

[20] BLM does say "It is also likely that the BLM would still have some discretion over the management of recovered fluids in its site-specific review," *id.* at 43, but that same discretion "still" would have existed when the 2015 rule was promulgated, and so was already factored in to the regulatory analysis.

[21] *Id.* at 43, 49 (emphasis added).

therefore rely on new state regulations to conclude that the benefits of the 2015 rule's tank requirements are now "marginal."

BLM notes that, since 2015, California has finalized new rules on hydraulic fracturing that include a tank requirement (but those rules were already in place in 2015 as emergency regulations), and North Dakota has updated its flowback management provisions to require tanks. However, even counting those two changes, the following key states with hydraulic fracturing on federal lands still have substantially less stringent requirements for fluid storage compared to the 2015 rule:[22]

- Wyoming allows the use of pits in lieu of tanks. Wyoming hosts about 29% of recent well completions on federal and tribal lands.
- Colorado requires tanks only in select areas responsible for surface water supply; otherwise, pits are allowed. Colorado hosts 10% of recent well completions on federal and tribal lands.
- Utah's requirements for fluid storage remain "unclear," according to BLM. Utah hosts 17% of recent well completions.
- Montana and Oklahoma both allow pit storage. Each state hosts 1% of recent well completions.
- New Mexico (29% of recent well completions) and Texas (1%) both have default requirements for tanks, but allow exemptions that may be broader than the 2015 federal rule's very "limited and rarely granted" exemption provision.[23]

In short, states with 88% of recent well completions on federal and tribal lands do not have the same fluid storage requirements as the 2015 rules. Moreover, while other states have fewer well completions, they may use more fluid per well. Arkansas, West Virginia, Pennsylvania, and Ohio have four of the five highest averages for water used in hydraulic fracturing operations,[24] and BLM estimates that operators in all four of those states have very low voluntary compliance rates for the use of tanks.[25]

Overall, BLM admits that "we estimate a reduction in the use of above-ground rigid tanks" resulting from the rescission of the 2015 rule.[26] At the same time, BLM assumes substantial continued use of storage tanks by operators in many states even after the rule is rescinded. Some of these assumptions are implausible. For example, BLM assumes that 100% of operators in Texas and New Mexico will use tanks even after rescission because of state regulations,[27] despite the fact that both states allow exemptions to their regulatory standards. BLM also assumes 100% voluntary compliance in Utah, despite the state's "unclear" standards, and 92% voluntary compliance in Wyoming.[28] The estimation of voluntary compliance rates is based partly on the fact that "tanks are likely to be less costly than pits on smaller and medium volume jobs."[29] Yet without a federal regulatory backstop, past voluntary compliance rates and past evidence of job size in particular states does not guarantee the continued use of tanks in the future.

BLM's own calculations of cost savings reveal just how many wells will opt not to use storage tanks if the 2015 rule is rescinded. BLM estimates that $4.5-$10.4 million in annual cost savings will come from just Colorado and Wyoming not having to comply with the storage tank requirement anymore: that is 75%-

[22] *Id.* at table 2.12.

[23] 80 Fed. Reg. at 16,163 (explaining the 2015 rule's very limited exceptions).

[24] Rescission RIA, Appendix, fig. A-1B.

[25] *Id.*, Appendix, table A-1D.

[26] *Id.* at 42.

[27] *Id.* at 43.

[28] *Id.*

[29] *Id.* at 67.

83% of all the cost savings from rescinding the storage tank requirement, or about one-third of all cost savings estimated from rescinding the entire 2015 rule.[30] But for every operator that experiences the proposed rescission as a cost savings, the corresponding choice not to use tanks will carry a substantial environmental risk. BLM has failed to explain why the benefits of avoiding that environmental risk—deemed prudent, common-sense, and necessary by the agency only two years ago—now are "marginal."

Moreover, avoided environmental risk is not the only forgone benefit from the proposed rescission, as discussed in the next section.

BLM Fails to Acknowledge the Forgone Cost Savings of the Tank Requirement That Will Partly Offset Any Estimated Cost Savings from the Rescission

BLM's proposed rescission lists only three benefit categories from the 2015 final rule: "additional assurance that operators conduct hydraulic fracturing in an environmentally sound and safe manner; reduce the potential risks to surface and groundwater resources; and increase public awareness and understanding of these operations."[31]

BLM therefore fails to acknowledge an important category of forgone benefits beyond the forgone environmental benefits. Specifically, the storage tank requirement from the 2015 rule was anticipated to generate long-term cost savings for industry that would have partly offset their compliance costs. Rescinding the requirement will forgo those cost savings, and that loss of cost savings will partly offset any positive cost savings anticipated from the rescission.

In the 2015 rule, BLM highlighted that:

> in the BLM's experience, the use of tanks in lieu of pits in high-volume operations limits potential environmental impacts, allows for *quicker site preparation*, *reduces reclamation requirements*, eliminates longer term environmental risk, reduces risks of spills or leaks, and *increases safety*. A tank can be removed in a day and there is no waiting required to recontour and seed the surface for reclamation purposes. The use of tanks for temporary storage of recovered fluids also provides the additional advantage of not requiring any *long-term monitoring and mitigation*. Pits also require periodic upkeep, monitoring, and fences. . . . Also, from the BLM's observations in the field, many operators already choose to use tanks in lieu of pits for temporary storage of recovered fluids to manage costs and timing of operations, and to control impacts to the environmental and *any resulting liability*. . . . [A]s compared with pits, tanks better isolate recovered fluids form contamination by surface sediments that might increase the *costs of recycling* the fluids.[32]

When rescinding a regulation, an agency must provide an explanation for disregarding the "facts and circumstances that underlay" the original rule.[33] But the proposed rescission fails to address any of the additional, non-environmental benefits and cost savings from the 2015 rule's storage tank requirement: reduced reclamation costs, increased worker safety, reduced long-term monitoring costs, reduced liability from environmental impacts, and reduced cost of recycling fluids for beneficial use.

Nor were BLM's estimates of cost savings from the rescission offset by these industry benefits lost from rescission. In the 2015 RIA, BLM had estimated "the average incremental cost of $74,400 per operation"

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[30] *Id.* at tables 4.2.2a & 4.2.2b (range cited in text above shows both lower and upper bound estimates).

[31] *Id.* at 3.

[32] 80 Fed. Reg. at 16,163, 16,203.

[33] *F.C.C. v. Fox Television Stations, Inc. ("Fox")*, 556 U.S. 502, 515 (2009).

for the storage tank requirement, "recognizing that this is likely to be both overestimate and constrain the potential costs."[34] This estimate was based on "the general engineering costs for rigid steel tanks" and "per-operation job costs," including transportation and rental costs.[35] In short, it was a conservative overestimate that did not include the cost savings and industry benefits generated by use of storage tanks, such as reduced remediation costs, worker safety benefits, reduced long-term monitoring costs, reduced liability from environmental impacts, and reduced costs for recycling fluid. The estimate also does not account for likely long-term cost savings due to technological innovation and learning. Already some operators favor tanks as more economical for small- and medium-volume jobs;[36] as larger-volume jobs increase their use of tanks, additional learning and innovation could likely further bring down costs over time for all job sizes.[37]

In the rescission's regulatory impact analysis, BLM continues to use that same $74,400 figure from 2015 to calculate the cost savings per operation for removing the tank requirement.[38] Therefore, BLM has failed to recognize an important category of forgone benefits that its proposed rescission will entail.

Conclusion

BLM has failed to rationally explain why the proposed rescission's estimated cost savings to industry justify the forgone benefits. If BLM cannot provide a rational explanation—and, given the evidence from the 2015 record, likely the agency cannot—BLM should not move forward with finalizing the proposed rescission.

Sincerely,

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[34] BLM, Regulatory Impact Analysis for Hydraulic Fracturing Rule, 75 (2015).

[35] *Id.* at 72.

[36] Rescission RIA at 67.

[37] *See* EPA, Guidelines for Preparing Economic Analysis, at 5-8 (2010) ("Estimated rates of learning effects often indicate that costs decline by approximately 5 percent to 10 percent for every doubling of cumulative production."); *id.* at 8-12 ("Indeed, OMB now requires cost analyses to consider possible learning effects among the cost-saving innovations. Recent EPA Advisory Council guidance recommends that default learning effects be applied even when sector- or process-specific empirical data are not available.").

[38] Rescission RIA at 43, 69.