



**Testimony of Lois N. Epstein, P.E.
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**Before the Subcommittee on Energy and Minerals of
The Committee on Natural Resources
U.S. House of Representatives
Regarding
H.R. 2728, “Protecting States’ Rights to Promote
American Energy Security Act”**

July 25, 2013

Good morning and thank you for inviting me to testify today. My name is Lois Epstein and I am an Alaska-licensed engineer and the Arctic Program Director for The Wilderness Society. The Wilderness Society, or TWS, is a national public interest conservation organization with more than 500,000 members and supporters. TWS's mission is to protect wilderness and inspire Americans to care for our wild places.

My background in oil and gas issues includes membership from 1995-2007 on the U.S. Department of Transportation's Technical Hazardous Liquid Pipeline Safety Standards Committee which oversees oil pipeline regulatory and other agency activities, serving on the Department of the Interior's Ocean Energy Safety Advisory Committee established after BP's Gulf spill in 2010, testifying before Congress on numerous occasions, and analyzing the environmental performance of Alaska's Cook Inlet and North Slope onshore and offshore oil and gas infrastructure. I have worked on oil and gas environmental and safety issues for more than 25 years for three private consultants and for national and regional conservation organizations in both Washington, DC and Anchorage, AK, and currently am actively engaged in development of hydraulic fracturing requirements in Alaska. I have a bachelor's degree in mechanical engineering from MIT and a master's degree in civil engineering from Stanford University.

The Language of the Bill

Today's hearing addresses H.R. 2728, the stated purpose of which is "To recognize States' authority to regulate oil and gas operations and promote American energy security, development, and job creation." Because there is no controversy regarding states' authority to regulate oil and gas operations, we must look to the bill's language to see what it actually does. The key provisions in the bill are contained in Sec. 2 (a), which states that "The Department of the Interior shall not enforce any Federal regulation, guidance, or permit requirement regarding...the hydraulic fracturing process, or any component of that process..." and Sec. 2 (b) which states that "The Department of the Interior shall recognize and defer to State regulations, permitting, and guidance, for all activities...on Federal land regardless of whether those rules are duplicative, more or less restrictive, shall have different requirements, or do not meet Federal guidelines." In other words, the bill prohibits the federal government from regulating hydraulic fracturing operations – including associated operations such as chemical and wastewater storage and disposal – on federal lands even if states have issued only hydraulic fracturing "guidance" or have developed ineffective regulatory programs. The bill is indifferent to how well state regulatory programs protect surface and groundwater, wildlife habitat, and the public.

For example, a state agency could issue a vague guidance on wellbore cementing for fracturing operations such that any Bureau of Land Management (BLM) regulation on wellbore cementing, no matter how specific, might be rendered void. The language in Section 2 (a) is sufficiently vague that BLM might be precluded from enforcing any federal regulation with any relationship to oil, gas, or geothermal energy, simply because states have guidelines or regulations regarding

hydraulic fracturing. This includes federal regulations issued pursuant to the Mineral Leasing Act, the Federal Lands Policy Management Act (FLPMA),¹ as well as other acts. The bill's effort to nullify federal law where it conflicts with state law turns on its head the principle behind the Constitution's Supremacy Clause, whereby state law is preempted to the extent it conflicts with federal law.²

Federal and State Roles Regarding Hydraulic Fracturing

Currently, BLM and tribal lands are subject to a patchwork of state hydraulic fracturing regulations, with some states not having performed much work on this issue. Some states require best practices in some areas, while other states do not. According to the FracFocus website:³

While nearly all states require the circulation of cement on surface casing, it is not a universal requirement. In some states, cement is required only across the deepest ground water zone...

[Additionally,] [i]n some states it is common for state personnel to witness the running and cementing of casing strings, while in other states the submission of a completion report which details the amounts and types of casing and cement used in the completion of the well is considered sufficient evidence of proper well construction. In a few states such as Alaska, Michigan and Ohio, an additional verification method using geophysical logs such as Cement Bond Logs (CBL) and Variable Density Logs (VDL) may be required. By measuring the travel time of sound waves through the casing and cement to the formation, the CBL shows the quality of bonding between the casing and the cement. The VDL performs a similar function to measure the bond between the cement and the borehole. By measuring the quality of the cement to casing and cement to formation bond, the sealing quality of the cement in the space between the casing and the borehole (called the annulus) can be evaluated.

Clearly, not all states have similarly-protective requirements, nor do they have equivalent resources or enforcement efforts related to oil and gas development. In Pennsylvania, for instance, where flowback water has been legally taken to wastewater treatment plants, several rivers were contaminated with chemicals that could create carcinogens in drinking water. According to the Scranton *Times-Tribune*:⁴

Citing concerns about high levels of bromides in western Pennsylvania rivers, acting Department of Environmental Protection Secretary Michael Krancer gave the drillers

¹ FLPMA requires BLM to issue rules and regulations to prevent unnecessary or undue degradation of public lands, and to protect ecological, environmental, and water resources for future generations. See 43 U.S.C. §§ 1702(c), 1733, 1740.

² See, e.g., *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-143 (1963), *Guarino v. Wyeth, LLC*, No. 12-13263, 2013 WL 3185084 (June 25, 2013).

³ See <http://fracfocus.org/hydraulic-fracturing-how-it-works/casing>.

⁴ See <http://thetimes-tribune.com/news/gas-drilling/state-calls-for-halt-to-shale-wastewater-treatment-at-15-plants-1.1135095> (April 20, 2011).

until May 19 to stop taking the waste to treatment facilities that were grandfathered into state rules that curb how much salt can be discharged into streams.

The request - which does not have the legal weight of an order - comes after federal environmental regulators, scientists and drinking water suppliers raised concerns about the drilling wastewater, which is laden with salts, metals and naturally occurring radioactive material that cannot be completely removed by conventional treatment plants.

The request came on the same day that the Marcellus Shale Coalition, an industry group, acknowledged that drilling wastewater is contributing to elevated bromide levels in the Allegheny and Beaver rivers.

Reducing the amount of salts, or total dissolved solids, in the wastewater also reduces bromides, which are nontoxic but can turn into cancer-causing compounds called brominated trihalomethanes when combined with chlorine at drinking water treatment facilities.

"Now is the time to take action to end this practice," Mr. Krancer said, citing "more definitive scientific data, improved technology and increased voluntary wastewater recycling by industry" since the facilities were given special exemptions to the state total dissolved solids standards when they were implemented last year.

As an engineer, it does not make technical sense to have non-protective requirements in place in certain states. In fact, all states care about their usable groundwater and surface water resources, so a national baseline of technical measures ensuring wellbore integrity including proper cementing and casing,⁵ suitable management of flowback water, and robust chemical disclosure makes sense from an engineering perspective.

From a policy perspective, federal lands – which are owned by all Americans – should be protected at roughly equivalent levels throughout the country, and not subject to the regulatory or enforcement whims of particular states. Moreover, the federal government has Congressionally-mandated stewardship requirements under FLPMA and trust responsibilities for Indian lands,⁶ unlike states. BLM must ensure that:

“... public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public

⁵ Notably, the Western Energy Alliance (WEA) report on the Economic Impact of Revised BLM Completion Rule issued on May 24, 2013, (*see* the report at <http://westernenergyalliance.org/wp-content/uploads/2013/07/Final-Economic-Analysis-of-the-Blm-Fracing-Rule-Revision.pdf>, July 19, 2013) shows that 90% of the compliance cost of BLM's proposed rule on hydraulic fracturing is from enhanced casing, an essential component of well integrity. The WEA acknowledges that operators have an obligation to protect actual drinking water sources (footnote 14 in the study, which does not mention an obligation to protect potential drinking water sources). If that is the case, there will be some cost to doing so effectively and that cost will be debatable as it is difficult to predict on a nationwide basis.

⁶ *E.g.*, Indian Mineral Leasing Act, 25 U.S.C. § 2103(b); Indian Energy Act, 25 U.S.C. § 3504(e)(6).

lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.⁷

FLPMA also directs BLM to manage the public lands so as to prevent unnecessary or undue degradation, and to protect the ecological, environmental, and water resources for future generations.⁸

It is essential that the federal government ensure adequate regulations are in place for industrial activities occurring on the lands it manages while providing states with the ability to exceed those requirements or to address atypical conditions. This regulatory model – where baseline federal standards are applicable across the country- has been a common feature of our nation’s approach to ensuring that all Americans enjoy protection from harm from industrial activities. The Clean Air and Clean Water Acts, for instance, are structured to provide minimum federal standards, while allowing states to impose more stringent or specific requirements. A benefit to this approach, which has remained in place on a bi-partisan basis for decades, is that it brings needed consistency for companies operating in multiple states. For states, this approach saves governmental resources because each state can rely on the federal government with its greater capacity to develop an adequate set of minimum regulatory requirements.

Deferring to State or Tribal Requirements

BLM currently is developing regulations to set a baseline for hydraulic fracturing operations on the lands it manages. Earlier this year, BLM issued a revised draft version of these regulations for public comments.⁹ The proposed regulations would allow BLM to issue a variance for all wells within states or within Indian lands, or to specific fields or basins within states or Indian lands (proposed section 3162.3-3(k)). BLM specifically requested comments on whether compliance with proposed chemical disclosure requirements (section 3162.3-3(i)(1)) should be satisfied by compliance with state or tribal requirements for the same or more information about the chemical constituents of hydraulic fracturing fluids.

TWS supports allowing federal compliance to be achieved where state or tribal disclosure requirements meet or exceed the federal standard and where states or tribes have adequate systems for conveying information about hydraulic fracturing activities to the public (though such an approach is unwieldy and a single database is preferable).

Conclusion

In its proposal to address several important issues that have arisen around hydraulic fracturing on federal public lands, BLM is attempting to fulfill its legal responsibilities to ensure a baseline level of regulatory protection and consistency for the American public. The regulations proposed by BLM earlier this year for hydraulic fracturing will not undercut state regulatory initiatives in

⁷ 43 U.S.C. 1701(a)(8).

⁸ 43 U.S.C. §§ 1702(c), 1740.

⁹ 78 Federal Register 31636-31676 (May 24, 2013), <http://www.gpo.gov/fdsys/pkg/FR-2013-05-24/pdf/2013-12154.pdf>.

this area. BLM's proposed hydraulic fracturing requirements operate like Clean Air and Clean Water Act requirements, allowing states to exceed federal requirements to meet state-specific technical needs or public desires for increased protection. On federal lands, there are strong technical and policy reasons for federal baseline requirements – especially regarding wellbore integrity and water resource protections – to ensure equitable standards throughout the country. States should not be allowed to undermine federal requirements because the end result will be contamination problems that will adversely affect regions and the industry as a whole.

Thank you very much for your attention to these concerns. I look forward to answering your questions.