

**Congress of the United States
House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy and Power
July 6, 2016
2125 Rayburn House Office Building, Washington, DC**

**Testimony by Lynn D. Helms, Director
North Dakota Industrial Commission
Department of Mineral Resources**

Chairman Whitfield, Ranking member Rush, and members of the Subcommittee

**Thank you for this opportunity to provide comments on "EPA's Regulatory Activity
During the Obama Administration: Energy and Industrial Sectors."**

The State of North Dakota is ranked 2nd in the United States among all states in the production of oil and gas. North Dakota produces approximately 430 million barrels of oil per year and 585 billion cubic feet of natural gas per year. The North Dakota Industrial Commission (NDIC) Department of Mineral Resources (DMR) Oil and Gas Division and Geological Survey have jurisdiction over gathering pipelines, oil and gas spill reporting, and well site construction regulation of the drilling, production and plugging of wells; the restoration of drilling and production sites; the perforating and chemical treatment of wells, including hydraulic fracturing; the spacing of wells; operations to increase ultimate recovery and prevent waste, such as cycling of gas; the maintenance of pressure; and the introduction of gas, water, or other substances into producing formations; disposal of saltwater and oil field wastes through the North Dakota Underground Injection Control Program; restricting and reducing the flaring of natural gas associated with crude oil production; and many other **operations related to the production of oil or gas and protection of the State of North Dakota's industrial interests.**

North Dakota's experience with EPA oil and gas regulation during the Obama administration began when the 111th Congress in its FY2010 Appropriations Committee Conference Report, urged the EPA to study the relationship between hydraulic fracturing and drinking water, using the best available science, independent sources of information, and to conduct the study in consultation with others using a transparent, peer-reviewed process. The EPA announced in March 2010 that it would conduct a research study to investigate the potential impacts of hydraulic fracturing on drinking water resources. The State of North Dakota is a stakeholder in the results of this study. Our interest comes from our involvement in the retrospective case study in Killdeer, North Dakota that is included in the study.

We expect EPA to stand by its commitment to using the best available science, a transparent peer-reviewed process, quality assurance principles, independent sources of information and consultation with others. North Dakota effectively worked alongside the EPA at the Killdeer retrospective site in October, 2011.

However, the assessment does not include quantitative information on how many instances of each contamination mechanism were identified or the geological and geographical circumstances of each instance.

It is now more than six years later and the assessment has not been finalized because the EPA Scientific Review Board is dealing with concerns over the definitions of “widespread” and “systemic”.

On December 10, 2010 EPA issued a rule that established a new well class, Class VI, for underground storage of CO₂. The Class VI rule established numerous technical criteria to protect underground sources of drinking water from the long-term subsurface storage of carbon dioxide (CO₂). On December 12, 2013 EPA published draft "Underground Injection Control (UIC) Guidance on Transitioning Class II Wells to Class VI Wells" (EPA 816-P-13-004)

In addition to providing comments on the rule and guidance, North Dakota formally requested the United States Environmental Protection Agency (USEPA) reconsider the provision 40 CFR 144.19 Transitioning from Class II to Class VI and allow for public comment.

Changes to a proposed rule must be reasonably anticipated by the public and a logical outgrowth of the proposal. *Shell Oil Co. v. E.P. A.*, 950 F.2d 741, 750 (D.C. Cir. 1991).

The guidance document appears to be an attempt to expand the authority of the USEPA by over filing State Class II primacy programs. Furthermore, this guidance appears to expand the authority of the Class VI UIC program Director over a Class II program or a Class II operator by allowing the Class VI UIC program Director the authority to require additional information/data to make a determination whether the Class II project can continue or should be required to transition. The Class VI UIC program Director has no authority over the Class II UIC program Director, nor does the Class VI UIC program Director have authority over the Class II project owner or operator. The SDWA authority does not extend to private minerals or pore space ownership, further complicating the entire concept of transitioning a carbon dioxide enhanced recovery project to a carbon dioxide storage project. In North Dakota, the pore space is owned by the overlying surface estate rather than a severed mineral owner. The NDIC regulates the drilling and production of oil and gas in North Dakota with the mission:

... to foster, to encourage, and to promote the development, production, and utilization of natural resources of oil and gas in the state in such a manner as will prevent waste; to authorize and to provide for the operation and development of oil and gas properties in such a manner that a greater ultimate recovery of oil and gas be had and that the correlative rights of all owners be fully protected; and to encourage and to authorize cycling, recycling, pressure maintenance, and secondary recovery operations in order that the greatest possible economic recovery of oil and gas be obtained within the state to the end that the landowners, the royalty owners, the producers, and the general public realize and enjoy the greatest possible good from these vital natural resources. N.D.C.C. § 38-08-01

It is of great concern to North Dakota that the USEPA rule and guidance would potentially conflict with the NDIC's mission to prevent waste, maximize recovery, and fully protect correlative rights.

On June 21, 2013 North Dakota submitted a Class VI Primacy Application.

On August 9, 2013 EPA Region 8 Published Notice for Comment on North Dakota's Class VI Primacy Application for a 30 Day Comment Period. No comments were received in opposition.

On October 29, 2013 North Dakota finalized the Class VI MOA with EPA Region 8.

On January 8, 2014 Federal Register Approval to amend 40 CFR Subpart JJ 147.1751 to add Class VI program was published.

Concurrence of approval of North Dakota's Class VI application has been received from Office of General Council, Office of Water, Office of Policy, and Region 8. The application was sent to the Administrator's office for final approval July 14, 2014.

In February, 2014 EPA published an advanced notice of Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels. The guidance states that hydraulic fracturing is a form of enhanced recovery under “Regulation of Hydraulic Fracturing in the UIC Program”. **Trying to fit hydraulic fracturing using diesel fuels into the Class II Program is inappropriate. EPA should have withdrawn its guidance and initiated a separate, proper, rule making process for regulation of hydraulic fracturing using diesel fuels.** Under “Recommendations for Describing Diesel Fuels” the definition of diesel fuel is too broad. EPA termed this proposal as guidance and stated that it is not a regulation. At the same time under “Does this Guidance Apply to States, Tribes, and Territories with Primacy?” EPA has included that EPA retains an oversight role in primacy states and may commence enforcement actions under specific conditions if an owner or operator violates a UIC requirement, but under “Does this Guidance Apply to States, Tribes, and Territories with Primacy?”, EPA states that this guidance does not apply to states, tribes, and territories with UIC primacy then goes on to explain how such entities must choose from varying approaches to permitting.

The permitting requirements for hydraulic fracturing using diesel fuels are a significant expansion of the UIC Program. The guidance requires information to be submitted on other “subsurface formations of interest” without defining the term or establishing a purpose for the information. Many of the proposed requirements placed on permitting of hydraulic fracturing operations using diesel fuels are not required in the current Class II regulations.

The guidance interferes with North Dakota rules that regulate temporary abandonment and plugging and abandonment.

This guidance includes language about the management of short-term and cumulative impacts on communities, land use, wildlife, and ecologies. This language must be removed as it goes beyond EPA's regulatory authority under the SWDA.

The guidance contains new extensive recommendations for monitoring USDW that are not in the current UIC program or utilized on producing oil and gas wells. This would require monitoring wells to be drilled for current wells which would create another potential pathway for contamination.

Requiring approval of the log results would create an expensive and burdensome workload for no additional environmental protection.

The public notification process will take a minimum of 90 days, and likely much longer depending on the workload, before a permit can be issued and will provide no additional environmental protection.

The proposed additional time-consuming and costly requirements are not commensurate with the environmental threat. Many states that run effective regulatory programs and have adopted hydraulic fracturing rules that include chemical disclosure, well construction, and well bore pressure testing should be explicitly exempted from the guidance.

On May 9, 2014 EPA published an advanced notice of proposed rule-making to seek comments on the information that should be reported or disclosed for hydraulic fracturing chemical substances and mixtures and the mechanism for obtaining this information. The proposed rule-making is in response to a petition from Earthjustice and 114 other groups who are opposed to the use of the GWPC-IOGCC FracFocus website process of chemical disclosure and any type of trade secret protection for hydraulic fracturing fluid mixtures. These groups are requesting EPA regulation of chemical disclosure under the federal Toxic Substances Control Act. North Dakota had already promulgated effective regulations requiring chemical disclosure and environmental protection. North Dakota's rules properly focus on well construction and testing to prevent hydraulic fracturing fluids from entering the environment and also include a requirement for operators to disclose chemicals used in hydraulic fracturing on FracFocus within 60 days of completion of the hydraulic fracturing operation.

Allowing for trade secret protection as performed within FracFocus is important for four reasons:

- First, it is the law of the land. Current federal and state laws provide for trade secret protection.
- Second, trade secret protection is a wonderful incentive for investment by hydraulic fracturing chemical manufacturers in newer, safer, and greener products.
- Third, release of such trade secret protected information might encourage operators to forego using the "newest" and "proprietary" chemicals since no proprietary information protection is provided.
- Finally, any information needed to respond to incidents involving release of hydraulic fracturing chemicals not available through FracFocus is already available through EPCRA and CERCLA laws and rules.

By far the best way for EPA to minimize reporting burdens and costs, avoid duplication of efforts, and maximize transparency and public understanding is to encourage the use of FracFocus nationwide. EPA should consider funding of programs such as FracFocus and Interstate Oil and Gas Compact Commission and Ground Water Protection Council programs such as the State Oil and Gas Regulatory Exchange, UIC Peer Reviews, and National Field Inspector Certification Program. All of these programs are overseen by Governors and state regulators who can provide independent third-party certification, collection of information, and development of best practices about hydraulic fracturing operations in lieu of a new EPA mandatory reporting or voluntary disclosure program.

On May 27, 2015 EPA Administrator, Gina McCarthy, and the Assistant Secretary of the Army (Civil Works), Jo Ellen Darcy, signed the “Waters of the United States” final rule.

Widespread flaring of natural gas has been a long-term, pervasive problem for oil and gas operators in North Dakota due to the limited but growing infrastructure that enables capture, sale, and processing of this valuable commodity. Many wells have no pipeline connection and others have undersized pipelines that must be expanded or rebuilt. In addition, the NDIC has been tasked by the North Dakota legislature, N.D. Cent. Code§ 54-17.7-03, to reduce truck transportation of crude oil and produced water "by facilitating development of pipeline facilities to support the production, transportation, and utilization of North Dakota energy-related commodities, thereby increasing employment, stimulating economic activity, augmenting sources of tax revenue, fostering economic stability, and improving the state's economy". In order to address these serious problems, the North Dakota legislature enacted laws requiring that flaring of gas produced with crude oil cease and pipeline infrastructure for transportation of oil and produced water is built. The gas capture rules adopted by the NDIC to enforce gas flaring reduction will require the gas gathering and processing industry to construct 2,000 to 3,000 miles of underground natural gas gathering pipelines per year for the next five to eight years. N.D. Cent. Code § 38-08-06.4 and NDIC Order 24665. Similar amounts of oil and produced water gathering pipelines must be built to comply with the policies adopted by the NDIC to develop pipeline facilities for transportation of crude oil and produced water. N.D. Cent. Code§ 54-17.7-03. In North Dakota, construction of the underground pipelines must occur between late August through the end of October, after crops are harvested but before the ground freezes.

The August 28, 2015 effective date of **the WOTUS Rule will directly impact the planned expansion of North Dakota's gas capture and infrastructure requirements** which will in turn, impact operators' ability to comply with North Dakota's flaring reduction laws and regulations. A loss of even one construction season will adversely impact the viability of North Dakota's statutory gas capture program and the related five-year pipeline expansion requirements. **The result will be a cumulative increase in the flaring of natural gas and the permanent loss of 67 trillion cubic feet of natural gas, \$7.5 million in gross production tax revenue for the State of North Dakota, and \$40 million in royalty income to mineral owners. In addition, any delay in pipeline expansion will increase heavy truck transportation of crude oil and produced water and the associated environmental impacts to air quality of 1.5 million semi-loads of crude oil and produced water.**

An additional example of an adverse impact from the WOTUS Rule is that ditches excavated in tributaries will become presumptively jurisdictional. The oil and gas industry must cross numerous ephemeral streams to install the required underground pipeline system discussed above, as well as for pipelines needed to transport produced water so that it is not necessary to transport it by truck. The significant delays associated with the new WOTUS Rule requirements for the excavated ditches will also interfere with the statutory flaring requirements discussed above and the necessary produced water pipelines needed to improve the safety and efficient transportation of potentially harmful material.

The NDIC has jurisdiction over construction of oil and gas well sites. Modern multi-well oil and gas locations contain small impoundments within containment dikes for the collection of precipitation such as storm water and snow melt. NPDES permits for removal of such collected water are typically managed by the North Dakota Health Department under the current

interpretation of federal rules. Again, the WOTUS Rule impacts a highly functional state regulatory system because such operations are now presumptively under federal jurisdiction instead of determining jurisdiction on a case by case basis. As is its sovereign right, the North Dakota legislature and the NDIC have enacted and promulgated numerous provisions to protect the health and welfare of its citizens, lands, environment, and productivity of North Dakota. The NDIC has statutory jurisdiction under N.D. Cent. Code § 38-08-04 to prevent the pollution of freshwater supplies by oil, gas or saltwater and to regulate the disposal of saltwater and oilfield wastes. N.D. Admin. Code§ 43-02-03-30 requires oil and gas operators to report all class II waste releases (oil and produced water spills), N.D. Admin. Code § 43-02-03-30.1 requires immediate removal of spilled or leaked material, and N.D. Admin. Code§ 43-02-03-19.2 requires proper disposal of all waste material recovered from spills and leaks. The NDIC has strict and comprehensive rules governing the reporting of these releases, but the WOTUS rule presumes that such releases are jurisdictional instead of determining jurisdiction on a case-by-case analysis. Based on this presumption, the WOTUS Rule will result in all releases being reported to the US Coast Guard National Response Center and spill remediation oversight by the EPA, which directly interferes with the State of North Dakota's sovereign right to preside over oil and produced water spill, reporting, and remediation.

In sum, the WOTUS Rule will interfere with and disrupt North Dakota's governance of the lands and waters within its borders. Especially for activities associated with oil and gas production, the WOTUS Rule will adversely affect laws and regulations that are vital to the overall health and welfare of the State of North Dakota and its citizens and will harm North Dakota's sovereign interests and disrupt regulations established to protect these interests.

On June 2, 2014, the U.S. Environmental Protection Agency, under President Obama's Climate Action Plan, proposed a plan to cut carbon pollution from power plants known as the Clean Power Plan.

Several North Dakota laws and regulations that successfully govern aspects of oil and gas production and exploration will be adversely impacted by the Final Rule. By altering the jurisdiction and state regulatory regime, the Final Rule will nullify the proven state regulatory program and thereby harm the State's sovereign interest in planning and developing the use of the oil and gas resources within its jurisdiction. Widespread flaring of natural gas has been a long-term, pervasive problem for oil and gas operators in North Dakota due to the limited but growing infrastructure that enables capture, sale, and processing of this valuable commodity. The North Dakota legislature enacted laws requiring that flaring of gas produced with crude oil cease and pipeline infrastructure for transportation of oil, natural gas, and produced water is built. The gas capture rules adopted by the NDIC to enforce gas flaring reduction will require the gas gathering and processing industry to install additional gas gathering and processing infrastructure over the next five to eight years that will require an estimated 300 MW of new electrical generation. The Final Rule will directly impact the planned expansion of gas capture infrastructure and the associated requirement for 300 MW additional electrical load by instead requiring the retirement of 1,300 MW of existing electrical generating capacity. This will in turn impact operators' ability to comply with North Dakota's flaring reduction laws and regulations. **The loss of electrical power for new gas gathering and processing between 2016 and 2020 will result in a cumulative increase in flaring and the permanent loss of 956 billion cubic feet of natural gas, \$107 million in gross production tax revenue for the State of North Dakota and \$570 million in royalty income to mineral owners.**

On March 26, 2015 a coalition of environmental organizations filed a 60 day legal notice with the U.S. Environmental Protection Agency demanding more regulation of drilling and fracking waste and on May 4, 2016 the lawsuit was filed.

Both the NDIC and the North Dakota Department of Health (“NDDH”) have authority for regulating oil and gas waste. The NDIC and NDDH jurisdiction is at times overlapping and concurrent. The NDIC maintains jurisdiction over oilfield waste from the point it is generated until it is properly disposed. The NDIC also regulates produced water transported in pipelines.

The NDIC, Oil and Gas Division currently has an annual budget of approximately \$94,000 for its Waste program and \$664,000 for the UIC Program. Of that budget, NDIC receives \$105,000 from EPA as an annual UIC Grant.

As is its sovereign right, the North Dakota legislature and the NDIC have enacted and promulgated numerous provisions to protect the health and welfare of its citizens, lands, environment, and productivity of North Dakota. The NDIC has statutory jurisdiction under N.D. Cent. Code § 38-08-04 to prevent the pollution of freshwater supplies by oil, gas or saltwater and to regulate the disposal of saltwater and oilfield wastes.

There are specific regulations governing each type of oil and gas waste, and disposal method, but the primary source of restrictions is the permit, which is issued to each operator or disposal facility and contains detailed restrictions on its location, operations, and reclamation planning. This highly localized, case specific process will not benefit from centralization or one-size fits all regulations that do not address the specifics of North Dakota geology, geography, and climate. NDIC also permits oilfield waste treating plants, after notice and a hearing. “A written application for a treating plant permit shall state in detail the location, type, capacity of the plant contemplated, method of processing proposed, and the plan of operation for all plant waste.”

Brines may be disposed of in underground injection wells pursuant to N.D. Admin. Code Chapter 43-02-05 and must be stored in surface facilities that “are devoid of leaks and constructed of materials resistant to the effects of produced saltwater liquids, brines, or chemicals that may be contained therein” or in tanks in good condition, with dikes erected and maintained around any saltwater tanks. N.D. Admin. Code § 43-02-03-53. No underground injection well may be constructed without permission from NDIC, and “[b]efore a permit for underground injection will be issued, the applicant must satisfy the commission that the proposed injection well will not endanger any underground source of drinking water.” N.D. Admin. Code § 43-02-05-04. NDIC also has authority to modify the permit.

The claim of the Plaintiffs in the litigation that the disposal of these wastes and waste waters is not regulated, or only loosely regulated, is simply false. Instead it is subject to stringent regulation by people who are familiar with local conditions with substantial input from members of the public who live in the area and are directly affected.

Conversion of the current RCRA Subtitle D programs to RCRA Subtitle C programs would require **re-permitting of approximately 580 existing produced water UIC disposal wells at an estimated cost of \$87 million to the state of North Dakota and \$58 million to the oil and gas industry. In addition, the transportation of drill cuttings to RCRA Class C disposal sites would add an estimated 50 semi-loads per well or 2.5 million cumulative semi-loads burden on North Dakota road and bridge infrastructure over the development life of the Bakken oil field costing North Dakota taxpayers billions of dollars in road and bridge repairs.**

NDIC vigorously enforces its regulations. The following table shows the high level of inspection and enforcement in North Dakota, as well as the effectiveness of the program for resolving non-compliance issues:

Inspection and Enforcement	1Q 2015	2Q 2015	3Q 2015	4Q 2015
Inspections	35,120	36,791	39,558	40,898
Rigs-weekly goal	105%	113%	120%	125%
UIC-monthly goal	98%	96%	98%	99%
Wells-quarterly goal	216%	220%	233%	228%
Problems Encountered	1,072	1,315	1,153	1,103
Resolved <30 days (verbal)	72%	81%	74%	80%
Resolved <180 days (written)	27%	18%	22%	15%
Complaints	5	1	1	6
Investigations Ongoing	0	0	0	0

In the litigation, Plaintiffs allege that EPA appears to have taken no action to strengthen and tailor its program for the regulation of oil and gas wastes under Subtitle D. North Dakota records show numerous program element enhancements have taken place through discussions with EPA Region 8 personnel:

- Notification to all Class II injection well operators, defining Class II wastes and providing a list of fluids acceptable for Class II injection, to be added to new permits on April 3, 1999.
- Defining the procedure for one time disposal of Class II wastes into production wells immediately prior to plugging and abandonment on May 10, 1993.
- Proposed changes to its rules and regulation on five occasions: June 10, 1994, May 24, 1994, June 6, 1996, October 6, 1999, and September 12, 2012.

On June 3, 2016 the final rule proposing a suite of changes to Clean Air Act permitting requirements for new and modified emissions sources in the oil and natural gas industry was published in the Federal Register.

North Dakota regulations for gas capture clearly define the initial flow back stage of well completions as 14 days. The proposed rule defines the flow back stage as the time when it is "technically infeasible" for a separator to function. In addition, North Dakota regulations for gas capture clearly define the separator flow back stage for a well completion as 90 days. The proposed rule defines this stage as the time when it is "technically infeasible" to route the recovered gas into a gas flow line or collection system, re-inject the recovered gas, use the recovered gas as an on-site fuel source, or use the recovered gas for another useful purpose. **The rule does not define "technically achievable, technically feasible, technically infeasible, or technically practical". This results in a clear conflict between the rule which contains undefined operational standards and existing North Dakota rules which contain a clearly defined numerical standard.**

North Dakota regulations for gas capture clearly define the first well in the spacing unit as exempt from the gas capture and production requirements imposed by NDIC Order 24665. The rule defines two subcategories of hydraulically fractured wells: (1) Nonexploratory and non-delineation wells, also known as development wells; and (2) exploratory (also known as wildcat wells) and delineation wells. **This also results in a clear conflict between existing North Dakota rules which contain a clearly defined standard and the rule which contains well definitions that are logical for conventional resource development, but not for unconventional development.**

The compliance time frames are too short. The well completions covered in the rule are spread over thousands of square miles and weather conditions in North Dakota can be very severe and dangerous for extended periods of time.

The rule does not adhere to the statutory language in the Clean Air Act section III(a)(3) to define source for the Prevention of Significant Deterioration (PSD), Nonattainment New Source Review (NNSR), and Major Source (Title V) programs. It combines pollutant emitting activities separated by a distance of one fourth mile or less. Those operations may be performed by multiple non-related parties. **For an unconventional play like the Bakken and Three Forks formations, wells need to be located in close proximity along energy corridors to reduce environmental footprint.** In addition, the adjacency rule will require a Title V permit for any two well pads within one fourth mile of each other, and will require a Prevention of Significant Deterioration (PSD) permit for any set of three or more well pads that are within one fourth mile of each other. **The resulting requirement for a Title V or PSD permit modification for every application for permit to drill will constitute a clear conflict with North Dakota jurisdiction over oil and gas resources within the state and with NDIC Order 14497 and 14498 which establish well spacing requirements that reduce environmental footprint through the creation of energy corridors.**

North Dakota regulations for natural gas capture have been enforced on the Fort Berthold Reservation under multiple tax and regulatory agreements between the state and tribes. The proposed rule will increase the number and complexity of conflicts with North Dakota regulations and the existing negotiated agreements.

The record keeping requirements of the proposed rule are far too voluminous for any kind of reasonable inspection and enforcement to be conducted. Additionally, the annual and semi-

annual reporting of the extensive identification and inspection **information required by the rule on a nationwide basis will create an unusable, costly, and burdensome records retention and inspection process for the EPA.**

The proposed rule states that it does not have federalism implications. The federalism analysis states the rule will have no substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. The analysis further alleges these final rules primarily affect private industry and would not impose significant economic costs on state or local governments. **This conclusion is incorrect as the proposed rule will conflict with the NDIC's current regulations.**

Finally, on June 3, 2016 the proposed “Information Collection Effort for Oil and Gas Facilities” was published in the Federal Register. Information requests for tens of thousands of existing facilities are anticipated. Comments on the proposed information collection are due August 2, 2016 and the NDIC intends to submit extensive comments.

Sincerely,

Lynn D. Helms, North Dakota Industrial Commission, Department of Mineral Resources

On behalf of the North Dakota Industrial Commission

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