



INDUSTRIAL COMMISSION OF NORTH DAKOTA

Jack Dalrymple
Governor

Wayne Stenehjem
Attorney General

Doug Goehring
Agriculture Commissioner

June 25, 2012

Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels—Draft,
Environmental Protection Agency
Mailcode: 4606M, 1200 Pennsylvania Ave. NW.
Washington, DC 20460.

Dear Administrator Jackson,

The North Dakota Industrial Commission (NDIC) appreciates the opportunity to provide the following comments on the Environmental Protection Agency (EPA) Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels—Draft:

- 1) North Dakota has an effective oil and gas regulatory program and has adopted hydraulic fracturing rules that include comprehensive chemical disclosure, well construction, and well bore pressure testing requirements. Our regulatory program is designed for Williston Basin geology which is unique with multiple rock layers thousands of feet thick containing from two to nine layers of sub-surface salts between the fractured formations and the underground sources of drinking water (USDW).
- 2) The draft guidance statement that hydraulic fracturing is a form of enhanced recovery under "Regulation of Hydraulic Fracturing in the UIC Program" is not accurate. The complicated methods identified for establishing permit duration, temporary abandonment, and application of mechanical integrity testing methods for wells with tubing and packer show that using guidance under existing Underground Injection Control (UIC) rules is not appropriate for hydraulic fracturing. The permitting, monitoring, and tracking requirements of the Class II UIC Program are intended for long-term injection operations, not an operation that takes place over a few hours or days. Trying to fit hydraulic fracturing using diesel fuels into the Class II Program is inappropriate. EPA should withdraw this guidance and initiate a separate proper rule making process for regulation of hydraulic fracturing using diesel fuels.
- 3) Under "Recommendations for Describing Diesel Fuels" the definition of diesel fuel is too broad. The guidance includes six CASRNs, but only four of the CASRNs refer to diesel fuels. CASRN 8008-20-6 and CASRN 68410-00-4 as well as the inclusion of "any material referred to by one of these primary names or any associated common synonyms" and the paragraph that discusses periodic updates of similar chemicals must be removed from the guidance because they do not comply with the 2005 amendment to the Safe Drinking Water Act (SDWA) which authorizes regulation of hydraulic fracturing using diesel fuels only. The Secretary of Energy Advisory Board's Shale Gas Production Subcommittee is referenced, but has no jurisdiction over the SDWA or UIC program.

- 4) The publication of the “Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels-Draft: Underground Injection Control Program Guidance #84” in the Federal Register/Vol.77, No. 91/Thursday, May 10, 2012/Notices requests comment on whether some de minimis level of diesel fuel constituents in HF fluids or propping agents should be used but this concept does not appear in the guidance.

EPA acknowledges biodiesel has the same chemicals of concern as petroleum-derived diesel but in lower concentrations. The federal Consumer Product Safety Commission exempts household products with concentrations of distillates and other hydrocarbons less than 10% from child resistant packaging and labeling requirements. This rationale supports the exclusion of de minimis amounts of diesel from the permitting requirements.

NDIC recommends that concentrations of 10% or less of any material defined as diesel fuel be exempt from the permitting requirements.

- 5) Under “Purpose”, EPA has 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. To be consistent, this retention of oversight and authorizing of overfilling must be removed.
- 6) 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 but goes on to explain how such entities must choose from varying approaches to permitting. If this guidance is only for direct implementation areas, this language must be removed.
- 7) Currently North Dakota has four permit writers for permitting of oil and gas wells and issues an average of 186 permits per month. North Dakota has one permit writer for UIC wells and issues approximately 10 UIC permits per month. Requiring a UIC permit for every hydraulic fracturing job in North Dakota would require nearly a twenty-fold (2000%) increase in UIC permit writers to keep pace with the current level of activity in North Dakota as well as additional staff to write decisions following the public hearings. Is EPA going to provide additional funding to support this increase in UIC activity? This is an unfunded mandate from the federal government.

The permitting requirements for hydraulic fracturing using diesel fuels are a significant expansion of the UIC Program. 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 proposed additional time-consuming and costly requirements are not commensurate with the environmental threat. The EPA study of potential hydraulic fracturing effects on ground water is not finished and there are currently no known environmental contamination incidents.

If EPA chooses to follow through with use of guidance under the UIC program for regulation of hydraulic fracturing using diesel fuels, 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.

- 8) The following comments are in regards to specific areas of the guidance:
 - a. “Can Multiple UIC Class II Wells Using Diesel Fuels for HF Be Authorized by One Permit?”
- confining area permits to a single operator does not acknowledge the actual practice of

hydraulic fracturing. Most, if not all hydraulic fracturing operations in a defined area and in the same reservoir, are conducted in a substantially similar manner. The well construction is dictated by the geology in a defined area and thus all the wells in the defined area are constructed similarly. The construction and hydraulic fracture design in a defined geologic setting is not dependent on who operates the wells. Issuance of individual permits for hydraulic fracturing, rather than area permits, is burdensome on the permitting agency and does not afford any increased protection. Restricting area permits to one operator or individual well permits will require hundreds or thousands of public hearings to accommodate the thousands of hydraulic fracture stimulations that are conducted in North Dakota each year. Area permits should allow hydraulic fracturing using diesel fuel by multiple operators if well construction and stimulation are similar.

- b. "Manage the well as temporarily abandoned during periods of oil or gas production (e.g., when no injection is occurring)" – North Dakota already has rules that regulate temporary abandonment. Modifying these rules to accommodate hydraulically fractured wells will require a rule change that is time consuming for no additional environmental benefit. It is not physically possible to verify mechanical integrity on a producing well without pulling the production tubulars and disrupting production. Also, inclusion of a plugging and abandonment plan at permitting time is unnecessary and offers no assurance it will be utilized at the end of the well's life. Plugging requirements may change over the life of the well making the plan obsolete. This requirement must be removed.
- c. "Mechanical Integrity Testing" - not all wells are perforated. Tubing or a "frac string" is not utilized in some wells which are stimulated down the production casing with appropriate safeguards. The after fracturing MIT requirement must be removed.
- d. "How Do the Area of Review (AoR) Requirements at 40 CFR 146.6 Apply to Wells Using Diesel Fuels for HF?" - the UIC program is for protection of USDW. 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.
- e. "What Information Should Be Submitted with the Permit Application?" - the guidance includes language about connection of USDW to surface waters. The concern is fractures extending from the zone being stimulated not what lies above the USDW, therefore this is not relevant to protecting USDW from the hydraulic fracturing operation under a UIC program and must be removed.
- f. "What Information Should Be Submitted with the Permit Application?" - 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. This monitoring recommendation must be removed.
- g. "What Information Should Be Submitted with the Permit Application?" - the guidance requires information to be submitted on other "subsurface formations of interest" without defining the term or establishing a purpose for the information. This is a huge expansion of the UIC program and the language must be removed.
- h. "How Do the Class II Well Construction Requirements Apply to Already Constructed Wells Using Diesel Fuels HF?" - the guidance contains a one-size fits all approach that surface casing must be set and cemented below the lowermost USDW. This requirement does not take into consideration local geology. This is not feasible in all states since local geology results in some hydraulic fracturing targets existing above USDWs and must be removed.
- i. "Mechanical Integrity Testing" - the guidance requires submitting a post-fracture tracer log in conjunction with a temperature log for review and approval to verify that the fractures did not penetrate the confining zone. The EPA states this is consistent with API Guidance

Document HF1, which recommends the use of post-HF tracer or temperature logs (API, 2009). API does not recommend the use of temperature and tracer logs to verify fracture length and height, but rather indicates they are techniques used to determine which perforations accepted fluid. The tracer and temperature logs are not practical or useful in a horizontal setting where the fracturing may take place hundreds to thousands of feet horizontally and vertically from the vertical portion of the well bore. Requiring approval of the log results would create an expensive and burdensome workload for no additional environmental protection. This requirement must be removed.

- j. "What Public Notification Requirements or Special Environmental Justice (EJ) Considerations are Recommended for Authorization of Wells Using Diesel Fuels for HF?" - the guidance contains the public notification requirements for all UIC well classes as found in 40 CFR Part 124. This process is filled with long timelines and enormous delays. A 30-day comment period for a draft permit, 30-day notice of a planned hearing, along with advertising deadlines and writing of a decision following the hearing. The 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 public notification requirements must be removed.

Your consideration and adoption of our recommendations is requested.

Sincerely,

North Dakota Industrial Commission



Jack Dalrymple, Chairman
Governor



Wayne Stenehjem
Attorney General



Doug Goehring
Agriculture Commissioner