devon

Devon Energy Corporation
333 West Sheridan Avenue
Oklahoma City, OK 73102

405 235 3611 Phone
www.devonenergy.com

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Environmental Protection Agency
Attn: Permitting Guidance for Oil & Gas Hydraulic Fracturing Activities
Mailcode: 4606M
1200 Pennsylvania Avenue, NW
Washington DC 20460

Subject: Docket ID No. EPA-HQ-OW-2011-1013

Dear Sir or Madam:

Devon Energy ("Devon") offers the following comments in response to the Environmental Protection Agency's ("EPA") request for comments on its draft guidance document titled "Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels - Draft: Underground Injection Control Program Guidance #84" ("Guidance"), 77 Fed. Reg. 27451 (May 10, 2012).

As detailed in the comments below, Devon expresses serious concerns about, and strong objection to, the EPA's draft guidance.

- This guidance is unwarranted and unnecessary.
    - There has never been contamination of ground water, let alone, underground sources of drinking water from hydraulic fracturing ("HF") operations (with or without the use of diesel fuels).
    - The Energy Policy Act of 2005 provided EPA the authority to regulate the use of diesel fuel in HF operations; however Congress did not direct EPA on whether or how to do so, and did not require the permitting of HF operations using diesel fuels.
    - The process of developing oil and gas wells including the use of hydraulic fracturing (with or without diesel fuels) is well-regulated under existing state oil and gas regulations.

- The use of "guidance" as a "regulation" without a formal rulemaking process is inappropriate and discouraged by the Courts.

- Force-fitting the permitting of oil and gas production wells using diesel fuels in HF operations under the Underground Injection Control program is inappropriate and confusing, will increase inconsistency and will be unnecessarily costly and burdensome on the regulated community.

- EPA's selection of the CASRNs and its proposal to add CASRNs in the future is not appropriate and conflicts with the Energy Policy Act of 2005. Diesel should be defined as those fuels manufactured and designed to operate a diesel engine.

<u>Special permitting for HF using diesel fuels is unnecessary</u>

EPA has not justified the need for the draft guidance. There has been no contamination of USDW using HF, with or without the use of diesel. EPA Adm. Lisa Jackson has testified to this fact in front of numerous Congressional Committees. The U.S. EPA concluded in a 2004 study that "additional or further study is not warranted" for hydraulic fracturing and "the injection of hydraulic fracturing fluids into coalbed methane (CBM) wells poses minimal threat to Underground Sources of Drinking Water (USDW)."

Each and every constituent in diesel fuel, and each constituent in the fuel oils, distillates, and kerosene listed (CAS #s 68476-30-2, 68476-31-3, 8008-20-6, and 68410-00-4) is mined from underground hydrocarbon-bearing rock formations, sometimes through the use of completion techniques like hydraulic fracturing. The fact that these constituents are already present in the target rock formations would suggest that additional regulation or permitting should not be necessary beyond that which is typically required for other hydraulic fracturing activities. The states, as well as the EPA already have robust permitting processes in place to ensure that oil and gas wells are cased and cemented adequately to protect ground water from materials recovered in target formations, and as such, those same requirements protect ground water adequately also from hydraulic fracturing chemicals, which are not applied to the well until it is cemented and cased.

<u>EPA should remove language allowing expansive regulation through guidance</u>

If EPA moves forward with the guidance, there are several instances in both the federal register notice, and in the draft guidance document itself that suggest EPA is attempting to expand regulation by guidance. The federal register notice states, "EPA focused on specific topics in the guidance, which are useful for **tailoring** Class II requirements to the unique attributes of hydraulic fracturing when diesel fuels are used." Any requirements that are specific to hydraulic fracturing, should be created by rule, not by guidance.

Further, the courts have addressed EPA rulemaking by guidance. While EPA continues issuing guidance that expands regulatory authority, it is worth noting that EPA does so despite court rulings against such action. The DC Circuit specifically discouraged expanding regulation by guidance in AEP v. EPA 208 F.3d 1015 (2000), holding that, in alignment with previous circuit opinions, EPA cannot expand regulation through guidance but must use the rulemaking process when expanding regulation. In other words, rather than circumventing review by the U.S. Office of Information and Regulatory Affairs (OIRA) through a guidance process, guidance that expands regulation should be properly submitted through the rulemaking process to allow review by OIRA.

<u>Substantive issues with the draft Diesel Guidance Requirements</u>

Notwithstanding Devon Energy's general comments about overreach through regulation by guidance, there are certain sections of the draft guidance that need clarification, should be altered, or should be removed.

The draft guidance creates uncertainty by suggesting other chemicals could be added at any time, which also bypasses the traditional rulemaking process

EPA provides a discussion of what constitutes diesel fuels on pages 6 through 11 of the draft guidance, and then identifies the CASRNs of two diesel fuels, two fuel oils, one kerosene, and one petroleum distillate. Simple identification of these 6 chemicals would have allowed for greater predictability for oil and gas operators, but EPA adds additional language including the following:

> "... has recommended six existing CASRNs for UIC permitting purposes, EPA recognizes that new chemical compounds are developed and assigned new CASRNs on an ongoing basis and that some of these compounds may be substantially similar in chemical and physical structure [emphasis added] to existing compounds in the list of six CASRNs."

> "When assessing whether an HF activity is subject to UIC permitting requirements under the SDWA, EPA UIC permit writers should consider whether any portion of the injectate has any of the following CASRNs, or is referred to by its primary name or any of the associated common synonyms."

Devon believes these two statements should be removed from the guidance document, and would request language that defines diesel as that which is specifically designed and manufactured to run a diesel engine. This would limit prescribed CASRNs to two (CAS #s 68334-30-5, 68476-34-6.)

The first statement implies that chemicals may be added to the identified list without a comment process or rulemaking process. Further, the addition of chemicals that share some physical properties with diesel fuel is not appropriate based on the Energy Policy Act of 2005. This act specifically states that, "...(ii) the underground injection of fluids or propping agents **(other than diesel fuels)** pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities [are exempt from UIC requirements]." Contrary to many statements in EPA's guidance, the statute does not include chemicals that have "similar chemical and physical properties like diesel fuels," it explicitly states "diesel fuels." The guidance should include only chemicals that are specifically designed to function as a diesel fuel, and are designed to run diesel engines.

The second statement, as it is written, leaves oil and gas operators, like Devon, a great deal of uncertainty in which chemicals are or are not applicable to this rule. The statement suggests that if any portion of the injectate is referred to by "it's primary name or any of the associate common synonyms," it should be considered by EPA UIC permit writers. This language is confusing. Must the chemical be one of the 6 chemicals listed, or would this consideration apply to any of a vast array of chemicals which share common synonyms with any of those 6 identified chemicals?

For example, there are multiple CASRNs that have a common synonym of petroleum distillates - none of which are diesel fuels. The guidance would suggest that these chemicals should be treated as if they were diesel fuels, which would be contrary to the Energy Policy Act of 2005. This statement should therefore be removed from the document.

The guidance should then list CASRNs for all chemicals intended to be regulated, which, to remain in agreement with the Energy Policy Act of 2005, should only be those fuels designed and manufactured to run a diesel engine.

Monitoring of injectate chemicals at the wellsite is both unnecessary and expensive

The draft guidance document mentions that, "The chemical and physical characteristics may change for each subsequent HF event performed on the well, therefore monitoring of the injectate composition throughout the HF using diesel fuels is recommended." This statement implies that the entire injectate should be monitored at all times when wells are subject to hydraulic fracturing using diesel fuels.

In addition, the draft guidance should include a 'de minimis' threshold for regulation to eliminate additional requirements for residual or trace amounts of diesel fuel that were not intentionally added. EPA states that any amount of diesel fuels in HF operations should be regulated by UIC permit writers in accordance with the 2005 Energy Policy Act. EPA does not consider any "thresholds" or "de minimis" amounts that would not require permitting. However, EPA does allow some amounts of the target constituents of diesel fuels to be without application under the draft guidance as it states, "...UIC permit writers should not consider the use of biodiesel in HF activities as diesel fuel under the SDWA unless biodiesel is blended with petroleum-derived diesel fuels. The vast majority of plant-derived diesel fuels, or biodiesel, typically contain significantly lower levels of chemicals of concern compared to petroleum-derived diesel fuels." EPA should consider establishing a 1% or less (total of intentionally added chemical additives) threshold at which diesel fuels used in HF operations are excluded from regulation. This would exclude any contaminants or impurities in HF operations from unnecessary regulation.

Regarding cost, there is not an economically feasible technology by which injectate can be monitored continuously while in the target formation. The chemicals, while they are at the surface, are carefully documented and known by the operating company, and their potential byproducts and reaction potentials are also well-known. Requiring any monitoring of injectate chemicals would therefore provide no additional value to EPA, but would dramatically increase costs to operators.

Using UIC program requirements to regulate Hydraulic Fracturing activities creates an excessive and unnecessary burden on operators, and should be reconsidered - should be altered

Pages 12-35 outline the challenges in applying the UIC program requirements to HF operations using diesel fuels in light of the intermittent and infrequent use of diesel fuels in HF operations. EPA should reconsider this guidance and if truly found to be necessary, use the rulemaking process to specifically address HF operations using diesel fuels. There are several examples listed below that demonstrate the difficulty in using UIC requirements to regulate hydraulic fracturing operations.

For example, EPA proposed the duration of the permit to be either 1) a short duration or 2) temporarily abandon the well. The first option, seemingly the most logical, is encumbered by the confirmation of compliance with UIC permit conditions before the injection permit duration ends, and the collection of monitoring data prior to releasing it from the UIC requirements. HF operations typically take 1-7 days. How will EPA accomplish this effort in a reasonable amount of time without burdensome requirements on operators? Option 2 requires a well closure plan in the permit for a well where HF diesel fuel operations takes 1-7 days. These requirements are neither reasonable nor appropriate.

On page 16, EPA recommends permit writers establish application submission time frames to assist operators in planning for HF diesel fuel operations. The time frame includes, among a number of items, public notice and comment prior to issuing a permit. This will certainly result in an unnecessary delay in normal and routine oil and gas exploration activities. This requirement should be removed.

In its Area of Review (AoR) analysis on page 18, EPA discusses the need to modify the ¼ mile fixed radius approach to delineating AoR and the need for 3-D well orientation and anticipated fracture length as well as depth to the bottom of all USDW. Further, on page 19, the guidance states the following may be needed: maps and cross sections of the AoR showing the extent and orientation of the planned fracture network, any nearby USDW, and their connections to surface waters. A plugging and abandonment plan that incorporates monitoring of USDW in the AoR to demonstrate non-endangerment may also be needed. On page 20, the guidance states that EPA may need a detailed chemical plan including volume and range of concentrations for each constituent.

EPA may also need baseline geochemical information of USDWs and other subsurface formations of interest within the AoR of the well which will require the logging and testing. Finally, on page 25, EPA recommends internal and external MITs before and after all stages of HF operations; the submittal of cement bond logs accompanied by a knowledgeable log analyst's interpretation for each casing string, cementing records, cement bond analyses, and any other logs determined by the EPA UIC permit writer to be necessary for review and approval by the EPA UIC Program Director prior to perforating a Class II diesel fuels HF well.

In addition, EPA recommends the submittal of a post-fracture tracer log in conjunction with a temperature log for review and approval by the EPA UIC Program Director after perforating a Class II diesel fuels HF well.

Each of these requirements is far above and beyond the requirements for hydraulic fracturing activities that do not use diesel fuels in their injectate. As stated above, the guidance provides no rational basis or additional risk that would lead one to conclude that the requirements for hydraulic fracturing with diesel fuels should be greater than those that do not. These additional requirements are excessive and unnecessarily burdensome on operators.

The guidance does not adequately express its own applicability

EPA states on the first page of the executive summary of the guidance:

> "This draft guidance does not address State UIC programs, but EPA believes that the recommendations in this guidance may prove useful to State permit writers as well."

In contrast, the federal register notice from EPA states the guidance only applies where EPA is the permitting authority. Further, the EPA web site states:

> "...the use of diesel fuel during hydraulic fracturing is still regulated by the UIC program. Any service company that performs hydraulic fracturing using diesel fuel must receive prior authorization through the **applicable** UIC program."

But on page 32 of the guidance, EPA encourages tribes, states, and territories **with UIC primacy** to use the guidance when implementing the state's existing regulatory framework.

These four statements are contradictory with one another, and the guidance should include further clarification. Any requirements that would be applicable to state UIC programs with primacy should be done via rulemaking, not through guidance.

Conclusion

In summary, Devon believes:

- This guidance is unwarranted and unnecessary.
    - There has never been contamination of ground water, let alone, underground sources of drinking water from hydraulic fracturing ("HF") operations (with or without the use of diesel fuels).
    - The Energy Policy Act of 2005 provided EPA the authority to regulate the use of diesel fuel in HF operations; however Congress did not direct EPA on whether or how and did not require the permitting of HF operations using diesel fuels.
    - The process of developing oil and gas wells including the use of hydraulic fracturing (with or without diesel fuels) is well-regulated under existing state oil and gas regulations.

- The use of “guidance” as a “regulation” without a formal rulemaking process is inappropriate and discouraged by the Courts.

- Force-fitting the permitting of oil and gas production wells using diesel fuels in HF operations under the Underground Injection Control program is inappropriate and confusing, will increase inconsistency and will be unnecessarily costly and burdensome on the regulated community.

- EPA’s selection of the CASRNs and its proposal to add CASRNs in future is not appropriate and conflicts with the Energy Policy Act of 2005. Diesel should be defined as those fuels manufactured and designed to operate a diesel engine.

Should it be helpful to provide further comment or input on the proposed guidance, Devon would be happy to provide it to you.

Respectfully,

Darren Smith

API's Responses to Questions Posed in 77 Fed. Reg. 27,451 (May 10, 2012), *Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels – Draft: Underground Injection Control Program Guidance # 84*

API opposes the approach EPA has recommended in the Draft Guidance, for the reasons outlined in our Comments. Nonetheless, in the event EPA is determined to address these matters as outlined in the informal guidance, we offer answers to the questions EPA posed in the Federal Register.

a. **Questions Related to the Diesel Fuels Description**

1. **Do the six CASRNs adequately describe diesel fuels? If not, what other factors should be considered in the definition? Are there additional CASRNs that should be included? Should any of the six CASRNs be eliminated from the definition? Please address the relative importance of having a description that is static and unchanged versus capturing new chemical compounds being developed that are substantially similar to the six recommended CASRNs.**

As explained in API's comments, only three of the six compounds listed in the Draft Guidance and the Federal Register notice fall within a proper definition of diesel fuels - CASRN 68224-30-5 (diesel fuel), CASRN 68476-34-6 (Diesel Fuel No. 2) and CASRN 68746-30-2 (Fuel Oil No. 2). The remaining three CASRNs – CASRN 8008-20-6 (kerosene), CASRN 68476-31-3 (fuel oil no. 4) and CASRN 68410-00-4 (petroleum distillates/crude oil) – should be eliminated from the proposed definition.

As outlined, a central factor to consider in defining "diesel fuels," would be the intent of Congress when it passed the Energy Policy Act of 2005. Absent a clear direction by the Congress in the statute or its legislative history, settled law provides that Congress is presumed to understand the existing administrative definition. Hence, API urges EPA to rely on the definition of "diesel fuels" as it existed at the time under federal law, in this case Title II of the Clean Air Act. 40 C.F.R. § 80.2(x).

In addition, EPA should also consider whether the fuel was specifically formulated to be a diesel fuel to operate a diesel engine. There are other fuels that might theoretically work in a diesel engine, but that should not transform into a "diesel fuel," a compound that was formulated and designed for a entirely different purpose.

API believes having a static definition of "diesel fuels" is essential to any permitting framework. Only a static definition would allow well operators to plan for and conduct their activities knowing with clarity what they need to do to comply with the law. We urge EPA in the strongest possible terms that when defining the factor that triggers whether or not the UIC regulatory scheme applies, the Agency should create a clear, unambiguous definition. It should not create a moving target.

Conversely, a definition that captures unspecified compounds based on a general description or other qualitative factors would lead to substantial uncertainty in the regulated community. Operators need to know with certainty whether or not including a particular additive in their hydraulic fracturing fluids would require a permit, as an operator would need to plan for the additional review and other requirements associated with a UIC permit.

Further, if the definition was at all unclear, the operator, enforcement personnel and other interested parties could disagree as to whether a particular compound was "substantially similar" to the listed CASRNs. That could lead to disruptive litigation – and even potentially criminal allegations by an aggressive prosecutor. SDWA 1423, 42 U.S.C. 300h-2(b) (civil and criminal actions); SDWA 1449, 42 U.S.C 300j-8 (citizen's suits). That would result in a lose-lose situation: the operator would not be able to develop an important resource and parties would be spending limited resources on litigation.

2. **Would a description based on chemical, physical and use-based attributes more adequately and appropriately characterize diesel fuels in a manner that prevents endangerment of human health and underground sources of drinking water on an ongoing basis? Are there other ways the Agency could address any existing or newly developed compounds, such as CASRN 64741-44-2, which is not on the current list of six CASRNs in the draft guidance but may meet the chemical, physical and use-based attributes of the six CASRNs yet not having "diesel fuels" in the name or description?**

On both counts, API submits that the answer is no.

As discussed above and in API's Comments here, basing a definition of diesel fuels on "chemical, physical and use-based attributes" deprives well operators of the certainty critical to the economic development of important oil and gas resources. This lack of certainty is amplified by the fact that "use-based attributes" is a vague phrase that does not have an accepted meaning and would be subject to varying interpretations.

More practically, until Title II of the Clean Air Act, EPA's mobile source division has established regulations that define diesel fuel. EPA should not stray from that existing regulatory framework and expertise. The Agency should not create a separate definition based on whether or not a diesel engine could theoretically run on a substance. If EPA followed that approach, it would then have to create an entirely separate ancillary set of criteria and tests to evaluate compounds in order to determine if the materials could "operate" a diesel engine, including what it means to operate (for how long, for what purpose, alone or with other additives, etc.) That would not only add an enormous burden, undue complexity, and require more EPA resources that it does not have, but would be a recipe for more differences of opinion resulting in more uncertainty, disputes and litigation.

Further, beyond the uncertainty, the public record does not support a conclusion that the descriptive definition outlined would offer any more protection to human health and underground sources of drinking water ("USDWs"), the only resource that is at issue under the Safe Drinking Water Act. EPA has not documented a case where any hydraulic fracturing fluid impacted a USDW, much less a case involving any type of diesel fuel.

With regard to CASRN 64741-44-2: CASRN 64741-44-2, a straight run middle distillate, is a heavier component of diesel fuel.[1] It will not run a diesel engine without being blended with a lighter catalytic cracked distillate. Alone, straight run middle distillate is not commonly or commercially formulated for sale for use in motor vehicles or motor vehicle engines. These two facts would appear to rule out including straight run middle distillate from the definition of diesel fuels when considering its "chemical, physical, or use-based attributes." Thus, from API's perspective, EPA's reference to CASRN 64741-44-2 only serves to highlight our concern with the subjectivity (and resulting uncertainty) involved in defining a fuel based on a "chemical, physical and use-based attributes" approach. Indeed, this example emphasizes the need for the Agency to provide public notice and the opportunity for comment before it would seek to add new compounds to the definition.

3. **Would approach (ii), based on the strict limits of the TSCA physical and chemical characteristics, but with no reference to suitability for use in a diesel engine be a more appropriate description for permitting diesel fuels under the EPA UIC program?**

No, for the reasons explained above and in our comments a definition other than one specifically listed by compound creates an uncertain regulatory framework. EPA should restrict any definition to a defined set of compounds.

We would note that the TSCA reference is not as "strict" as the question suggested, but has subjective aspects. According to EPA's Notice, the TSCA description provides that "diesel fuel is a complex combination of hydrocarbons having carbon numbers *predominantly* in the range of C9 through C20 and boiling the range of *approximately* 163° C to 357° C ..." 77 Fed. Reg. 27453 (emphasis added). This leaves flexibility to the permit writers and enforcement officials putting operators at risk. Further, it is illogical to rationally designate a compound as a "diesel fuel" while simultaneously not evaluating whether or not it actually was formulated and designed for sale as use as a "diesel fuel."

4. **Would approach (iii), which captures many more compounds that may or may not be suitable to run a diesel engine, more adequately and appropriately characterize diesel fuels for EPA UIC permitting purposes? How would you suggest permit writers and applicants efficiently and effectively identify chemicals meeting this description?**

API agrees with EPA's recommendation that approach (iii) would not be an appropriate approach to define diesel fuels.

This approach (iii) would include in the definition "any petroleum derived substance with CASRNs that overlap the diesel fuel predominant carbon range or boiling point range..." 77 Fed. Reg. 27454. As EPA outlines, it was not recommending this approach, in part, because it would include "many compounds that are not suitable to run in a diesel engine..." 77 Fed. Reg. 27454. API supports that analysis. If EPA were going to expand its definition beyond its own

[1] If Congress intended to also exclude each fractional component of diesel fuels, such as CASRN 64741-44-2, from the exemption of hydraulic fracturing from UIC requirements it could have done so. Yet, Congress did not.

mobile source regulations , then EPA should not eliminate the requirement that a compound classified as a "diesel fuel" actually be used as "diesel fuel." Indeed, to do otherwise would be absurd.

5. **What other approaches should EPA consider in describing diesel fuels?**

None. Outside of relying upon the Title II definition of "diesel fuel," API submits that no other approach should be utilized for the reasons discussed above and in our comments.

b. **Diesel Fuels Usage Information**

EPA seeks reliable data about volumes and frequency of diesel fuel usage in hydraulic fracturing fluids or propping agents. EPA also seeks additional information on the uses of diesel fuels for hydraulic fracturing, including the efficacy of any substitutes for diesel fuels and where substitution may be infeasible or raise other technical issues.

The best information on current diesel fuel usage in hydraulic fracturing is in the FracFocus database. As of August 10, 2012, 227 companies covering 24,548 sites have submitted data, providing the most complete, available data set of current usage of which API is currently aware. As that data set shows, only a small number of wells are reporting the use of any diesel fuels. That is the best evidence that in most cases there are reliable substitute.

c. **Questions Related to Permit Duration and Well Closure**

The draft guidance recommends two approaches for permitting wells allowable under the UIC Class II regulations to address the unique nature of hydraulic fracturing. EPA permit writers may (1) Issue short duration permits and convert wells out of the UIC program upon completion of the diesel fuels hydraulic fracturing activity, or (2) they may assign the well to "temporarily abandoned" status. What additional approaches should EPA consider for UIC permitting of hydraulic fracturing wells to effectively address well closure, plugging and abandonment requirements?

For the reasons discussed in our Comments, API opposes the application of UIC rules to hydraulic fracturing, but particularly urges EPA to reconsider the application of UIC Class II rules. Among other reasons, as EPA effectively acknowledges, Class II rules were not appropriate "because hydraulic fracturing activities are immediately followed by oil or gas production…" 77 Fed. Reg. 27455. If EPA is going to address hydraulic fracturing fluids that include diesel fuel, the agency should develop a separate class of wells by formal rulemaking to address what EPA properly recognizes is "the unique nature of hydraulic fracturing." 77 Fed. Reg. 27455.

If, however, EPA insists on proceeding with regulation under UIC Class II, API would prefer a regulatory scheme that designates producing oil and gas wells as temporarily abandoned after the injection of hydraulic fracturing fluids. As EPA appropriately notes in its Notice, this approach would avoid the need for operators to obtain a new UIC permit should the operator need to conduct future hydraulic fracturing of the well. However, during this interim status, EPA should defer to the existing state regulations which govern the management of oil and gas wells. As there is no injection ongoing, there is no nexus to the UIC program that authorizes ongoing EPA oversight of the well.

With regard to additional approaches, as outlined, API submits that rather than impose a duplicative layer of permitting, EPA should defer to state regulations. States where EPA implements the UIC Class II program (such as Pennsylvania, Michigan and elsewhere) already have comprehensive programs in place regulating well closure, plugging and abandonment. EPA has not developed a record basis for federalizing these requirements that have long been the province of state governments.

d. **Questions Related to Area of Review**

1. **What additional area of review delineation approaches would you consider effective for the purposes of permitting hydraulic fracturing using diesel fuels?**

None. As discussed, the available record does not justify an "area of review" for hydraulic fracturing. Hydraulic fracturing fluids are injected and returned to the surface in a relatively short time period. Moreover, the injection occurs several thousand feet below any USDWs – and there have been no documented instances of impacts to USDWs. Hence, requiring a expansive and costly "area of review" delineation would be inconsistent with the President's Executive Order 13563 which requires agencies to propose regulations "only upon a reasoned determination that its benefits justify its costs" and to "tailor [their] regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations." E.O. 13563 §1(b), 76 Fed. Reg. 3,821 (Jan. 21, 2011). With no documented or scientific basis, any area of review delineation would lack the required reasoned determination. EPA should instead defer to the requirements already imposed on oil and gas production wells under state law.

2. **How would you ensure that the area of review appropriately accounts for the horizontally drilled sections of the well without being computationally burdensome?**

State regulations already provide adequate protection of USDWs from hydraulically fractured wells. Therefore, any other requirements under the UIC Class II regulations would be wholly duplicative. Unless and until EPA documents any proven deficiencies in existing state rules, the Agency should defer imposing any new duplicative and burdensome regulations that impose costs, but provide no measureable environmental benefits.

Further, as discussed, there is no documented basis for requiring an expanded area of review to "account for horizontally drilled sections of the well." The horizontal portion of a well that is injected during hydraulic fracturing is located thousands of feet below USDWs. EPA has not documented through modeling, data or information of any kind that there is any measureable risk of communication to USDWs from the horizontal portion of production wells buried deep below any drinking water aquifer to warrant an expanded "area of review" at the surface. To the contrary, data demonstrate that the fractures have not communicated with USDWs.

3. **Are there other circumstances where it would be appropriate to use the standard approaches (e.g., ¼ mile radius around the well) for determining AoR? Commenters should explain how the standard approach would provide appropriate protection for USDWs.**

As a preliminary matter, the presumption should be against expanding the AoR beyond the standard approach, particular in an informal guidance. It is EPA as the agency that is seeking to create a new regulatory framework through informal guidance that has the burden of justifying the additional burden it could impose. Regardless, as outlined, no area of review is necessary for hydraulic fracturing If one were to be required, the standard approach would provide more than adequate protection, given the "unique nature of hydraulic fracturing," 77 Fed. Reg. 27,455.

e. **Questions Related to Information Submitted With the Permit Application**

1. **Should EPA require collection of geologic cores, outcrop data, seismic surveys, well logs and data on the injection and confining zones, including their areal extent, mineralogy, porosity, permeability, and capillary pressures and geology or facies changes with each permit application? Commenters should consider the relative importance of these data to protection of human health and underground sources of drinking water versus any additional workload for applicants.**

No, EPA should not impose additional data gathering and reporting requirements. EPA's limited authority to regulate the brief injection of hydraulic fracturing fluids containing diesel fuels should not be converted into an expansive data gathering mandate.

Moreover, any suggestion that EPA would expand the data required in the permit application into these areas further highlights why EPA should not be acting by issuing informal guidance. If EPA is intent on addressing these issues, it should conduct a proper rulemaking.

Some of the types of data listed are collected by operators in order to assess and develop a well site properly. The set of parameters appropriate for operators to evaluate are outlined in API's hydraulic fracturing guidelines. *See* API, Hydraulic Fracturing Operations – Well Construction and Integrity Guidelines (1st ed. Oct. 2009). API supports the use of its guidelines, in concert with state regulations.

However, if made part of the permit application, this requirement will substantially expand the review time and requests for additional information, which will necessarily impose substantial additional costs and burdens on operators seeking to expeditiously and economically develop resources for the market. It is therefore difficult to quantify the specific burden imposed by the listed categories, absent more details from EPA, but experience tells us it will be a material burden.

In contrast, to require operators to provide to the federal government the listed information is unjustified. State rules already require detailed permit applications and regulate all aspects of the development of and production from oil and gas production wells. EPA has not documented how providing these kinds of data could provide any additional, measureable protection to the public, beyond the protection already provided by state regulators experienced in regulating oil and gas development. To the contrary, the record shows that use of hydraulic fracturing has not caused a single case of documented harm to a USDW from injection of hydraulic fracturing fluids.

2. **Should EPA require collection of data on the geomechanical characteristics of the confining zone such as information on fractures, stress, ductility, rock strength and in situ fluid pressures with each permit application? Commenters should consider the relative importance of these data to protection of human health and underground sources of drinking water versus any additional workload for applicants.**

See API's Response to c.1, *supra.*

3. **Should EPA require the submission of seismic data, such as the presence and depth of known seismic events and a determination that injection would not cause seismicity that interferes with containment with each permit application? How useful would inclusion of these data be to minimize potential risk of endangerment to USDWs?**

No. There is no scientific basis for the concern that the injection of fracturing fluids containing diesel fuels has contributed to or could contribute to seismic events. Even if EPA believed that it has or could, this concern relates to all hydraulic fracturing, not just hydraulic fracturing with diesel fuels. If EPA wants to impose new requirements related to seismic data, and assuming it had the statutory authority to do so, it must do so through the formal rulemaking process.

To require every applicant to show and EPA to determine in every instance that fracturing "would not cause seismicity that interferes with containment" would impose very significant burdens for no known benefit. The development of these resources – and the associated economic growth – would be severely impaired if each well operator had to conduct a study and EPA had to make this determination.

A call for seismic data is especially unnecessary given a recent report by the National Research Council ("NRC"). Prepared at the request of Congress, the NRC's report concluded that "the process of hydraulic fracturing a well as presently implemented for shale gas recovery does not pose a high risk for inducing felt seismic events." NRC, Induced Seismicity Potential in Energy Technologies (June 15, 2012) at 1 (advance pre-publication copy).

Moreover, any suggestion that EPA would require an expansion in the data required into these areas further highlights why EPA should not be acting by issuing informal guidance. If EPA is intent on addressing these issues, it should conduct a proper rulemaking.

4. **What other information, if any, should EPA recommend be submitted with the permit application to make permitting decisions that are protective of human health and underground sources of drinking water?**

None. The state permit applications require sufficient data to ensure permitting decisions are made that are fully protective of human health. To the extent that EPA believes more information is required, it should conduct a proper rulemaking, as opposed to attempting to impose additional regulatory requirements through informal guidance.

f. **Questions Related to Monitoring**

1. **The recommended monitoring approaches include specifications for mechanical integrity testing prior to and after hydraulic fracturing injection using diesel fuels. What additional approaches for monitoring of well integrity should EPA consider to ensure safe and effective injection well operation?**

None. Well integrity is already subject to state regulations and industry guidelines. There are no data in the record before EPA that suggests the existing state regulations cannot fully ensure proper setting of wells developed using hydraulic fracturing using diesel fuels. As noted, before imposing these regulations, under Executive Order 13563, EPA would have to provide some documented rationale for adding these further regulatory requirements, which it has not done. To the extent that EPA believes further monitoring may be required, despite pre-existing state regulation, it should conduct a proper rulemaking that develops a record to assess the need for additional monitoring.

2. **According to standard industry monitoring practice, data are collected through means such as microseismic monitoring and/or tiltmeter monitoring to characterize the actual fracture network and compare it to the predictive fracture model. Should EPA require this monitoring, or any other approaches, in the guidance recommendations to ensure that the fracture network does not pose a potential risk to USDWs?**

No. EPA should not be imposing (or recommending) these additional monitoring requirements through this informal guidance. The specific technologies that EPA proposes do not provide immediate analysis or information. The results from these technologies would be received only after hydraulic fracturing has been completed and injection has stopped, and therefore offers no information during the permitting process for a particular well.

API supports implementation of its hydraulic fracturing guidelines by industry, but that does not mean EPA should require those through its informal guidance. If EPA believes additional monitoring is necessary, it should conduct a proper rulemaking to evaluate what additional monitoring would be appropriate. At this juncture, there are no data in the record to support imposing these additional requirements. *See* Response to c.3, *supra.*

3. **Should EPA include baseline and/or periodic monitoring of USDWs as a recommended monitoring approach in the guidance? If so, what water quality monitoring data should be included to best ensure non-endangerment of USDWs?**

No. The monitoring and other steps taken under state regulations fully protect underground sources of drinking water. Before imposing this kind of duplicative requirements, EPA should provide the necessary justification for these additional requirements. *See* Executive Order 13563. To the extent that EPA insists on requiring monitoring, despite pre-existing state regulation, it should conduct a formal rulemaking better suited for hydraulic fracturing using diesel fuels, given its very low risk to USDWs.

Erik Milito
Group Director
Upstream and Industry Operations

1220 L Street, NW
Washington, DC 20005-4070 USA
Telephone 202-682-8273
Fax 202-682-8033
Email militoe@api.org

energy API

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U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ-OW2011-1013
Mailcode: 4606M
1200 Pennsylvania Avenue, NW
Washington, DC 20460

SUBJECT: Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels – Draft: Underground Injection Control Program Guidance #84

The American Petroleum Institute (API) offers the following comments on the Environmental Protection Agency's (EPA's) draft Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels, 77 Fed. Reg. 27,451 (May 10, 2012) (Draft Guidance). These comments address the significant potential implications for state primacy and U.S. national and energy security raised by the Draft Guidance, in particular its attempt to misapply ill-suited regulations to hydraulic fracturing and to define "diesel fuels" outside of the formal rulemaking process.

The U.S. oil and natural gas industry supports 9.2 million domestic jobs and comprises more than 7.7% of the U.S. economy. The industry has paid more than $150 billion in royalty revenues to the federal treasury for oil and gas produced on federal lands. API is a national trade association that represents over 500 members involved in all aspects of the oil and natural gas industry. API represents operators and service companies involved in the exploration and production of onshore oil and gas resources, including companies currently engaged in hydraulic fracturing.

API is the industry's worldwide leading standards-making body, accredited by the American National Standards Institute, and has issued some 500 consensus standards governing all segments of the oil and gas industry. These include guidelines on construction and operation best practices for hydraulically fractured oil and gas wells, such as those referenced by EPA in the Draft Guidance. Our members have extensive experience with the drilling and completion techniques used in oil and natural gas development and applying those techniques in a safe and environmentally responsible manner.

Hydraulic fracturing involves a short-term injection of a fluid mixture into a well to create fractures in a rock formation in order to permit oil or gas to flow to the wellbore. Fracturing fluids are some 99.5% water and an inert proppant material, typically sand.[1] Only a small (and ever-shrinking) fraction of wells are stimulated with fracturing fluid containing diesel fuels.

After carefully reviewing EPA's Draft Guidance, API must again express our concern about applying the Class II underground injection control ("UIC") rules and permitting process to hydraulic fracturing using diesel fuels.[2] The UIC program, including regulations specific to Class II injection wells, was never intended to apply to short-term, intermittent applications such as hydraulic fracturing, and as such, the rules are unsuited to this activity. Indeed, as outlined in these comments below, a close review of the rules clearly demonstrates the disconnect between Class II UIC regulations designed to address long-term, continuous injection of fluids and the short-term injection involved in hydraulic fracturing.

In contrast, state oil and gas regulations already apply to the development and operation of production wells – including the small fraction of wells stimulated with hydraulic fracturing fluids that contain diesel fuels – and those regulations adequately protect underground sources of drinking water (USDWs). The proof is in the empirical data. Over the past 60 years, over 1 million production wells have been hydraulically fractured (with or without using diesel fuels). EPA Administrator Lisa Jackson has testified as to the absence of any "proven case where the fracking process itself has affected water."[3] Indeed, misapplying UIC Class II regulations to wells hydraulically fractured with diesel fuels would divert limited EPA resources away from addressing actual threats to USDWs.

Under the Safe Drinking Water Act (SDWA), EPA must take into account two fundamental precepts: any interpretative guidance should be aimed at not impeding oil and gas development, while at the same time protecting human health and the environment.[4] Balancing these factors requires consideration of the burden that applying ill-suited UIC regulations to wells hydraulically fractured using diesel fuel will exact.

[1] *See* API, Hydraulic Fracturing Primer: Freeing Up Energy at 8 (July 19, 2010), *available at* http://www.api.org/policy/exploration/hydraulicfracturing/upload/HYDRAULIC_FRACTURING_PRIMER.pdf.

[2] API previously submitted a letter to EPA dated June 29, 2011, commenting on an earlier EPA proposal to issue permitting guidance for hydraulic fracturing using diesel fuels.

[3] 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." *Available at*, http://www.youtube.com/watch?v=_tBUTHB_7Cs&feature=youtu.be (last visited Aug. 17, 2012).

[4] *See* 42 U.S.C. § 300h(b)(2)(B).

Accordingly, API urges EPA to withdraw this unnecessary and disruptive informal guidance. Alternatively, API suggests EPA initiate a formal rulemaking based on sound science to avoid applying regulations intended for continuous, long-term injection to short-term fracturing jobs using diesel fuels.

I. The Draft Guidance Is Unnecessary and Should Not Be Finalized

A. There is no evidence that the use of diesel fuels in hydraulic fracturing fluid poses a threat to underground sources of drinking water

EPA should reconsider issuing this Draft Guidance because the *de minimis* use of diesel fuels in hydraulic fracturing fluid presents no demonstrated threat to our nation's USDWs. Without any evidence of an environmental or health risk presented by the use of diesel fuels, EPA lacks any evidentiary basis to create an additional, disruptive layer of federal guidelines that the Draft Guidance would impose.

Diesel fuels are rarely used in hydraulic fracturing injectate and only when operators are confronted with specific geological challenges. Historically, diesel fuels were used on a limited basis in hydraulic fracturing as friction reducers or in cross-linked polymer systems. Industry has voluntarily moved away from use of diesel fuels through product substitution and elimination.[5] As EPA acknowledges, only 2% of recently hydraulically fractured wells used any of the six types of "diesel fuels" (as EPA proposes to define them) in jurisdictions where EPA administers the UIC program.[6] 77 Fed. Reg. at 27,453. Properly defined, diesel fuels are used in an even smaller share of wells, as three of the CAS numbers selected by EPA should not be included in the definition of diesel fuels. Even when diesel fuels are used, they comprise an extremely small portion of the hydraulic fracturing fluid. At this juncture, EPA reports that it has no contrary data before it, despite extensive data collected in response to information requests issued to service companies and operators in conjunction with EPA's larger study of hydraulic fracturing.[7] EPA should seriously reconsider attempting to regulate what is now such a marginal production practice.

[5] The primary historical concern regarding the use of diesel fuel during hydraulic fracturing centered on contaminating potentially non-potable groundwater contained within shallow coalbed methane deposits. However, there is little to no potential for a minute volume of diesel fuel in hydraulic fracturing fluids to further "contaminate" formation water already in contact with a natural hydrocarbon-bearing zone. The expansion of this unique geological concern to include hydraulic fracturing using diesel fuel in stimulating *all* types of hydrocarbon plays (*e.g.*, tight sands, shale gas/oil, etc.) is a misapplication of an already dubious historical rationale.

[6] Notably, EPA failed to provide other important information associated with these wells that is relevant to this Draft Guidance, including CAS numbers of materials used in these wells, concentration in total volume of fluid, etc.

[7] *See* FN15, *infra*. It should also be highlighted that this data collected by EPA only pertains to operations conducted from 2005 to 2010, and should not necessarily be considered representative of today's practices.

Not only is the use of diesel fuels rare and limited in scope, EPA Administrator Jackson has recognized that there have been no proven cases of hydraulic fracturing, with or without diesel fuels, affecting USDWs. Over the past 60 years, the oil and gas industry has hydraulically fractured over 1 million wells with no proven contamination of USDWs.[8] In addition, a 2004 EPA study of hydraulic fracturing found that the activity presented no threat to USDWs, including in the arguably higher risk coalbed methane formations that are typically closer to USDWs than other formations.[9] Any decision to impose significant new burdens on hydraulic fracturing operations should be based on reliable data and documented case studies that present a scientifically credible risk analysis. Absent that, proposing new guidance that would govern activities for which there is no demonstrable evidence that new federal requirements are needed is arbitrary and capricious.

In the Draft Guidance, EPA seeks to support its approach by discussing the alleged constituent chemicals within diesel fuels. This discussion is wholly beside the point.[10] The critical issue that would potentially justify new federal oversight is the identification of a viable pathway for exposure, not the chemical makeup of diesel fuels. Yet the Draft Guidance does not document a single viable exposure pathway that could exist under current state regulations and industry best practices between any amount of diesel fuels used in hydraulic fracturing fluid and USDWs (nor, we submit, could it do so based on sound science), other than to generally reference pathways cited in UIC program materials. Draft Guidance at 4, Appx. A. These general references, however, do not provide a record basis for the new requirements EPA would impose through the Draft Guidance.[11] EPA has not, for example, made a finding (or done an analysis that would

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[8] *See, e.g.*, Oil and Gas Exemptions in Federal Environmental Protections: Hearing Before the H. Comm. on Oversight and Gov't Reform, 110th Cong. (Oct. 31, 2007) (testimony of David E. Bolin, Dep. Dir., State Oil & Gas Bd. of Alabama).

[9] Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs Study, § 7.4 (2004) (concluding "that the injection of hydraulic fracturing fluids into [coalbed methane] wells poses little or no threat to USDWs."). Based on EPA's conclusion, fracturing of shale formations would pose an even smaller risk because numerous additional layers of impervious rock separate targeted shale layers from USDWs.

[10] API is also concerned that the discussion is factually flawed. For example, EPA asserts, without citation, that diesel fuels "contain 20 to 60 percent polynuclear aromatic hydrocarbons (PAHs) by volume…." Draft Guidance at 8. API is not aware of any diesel fuels containing above 20% PAHs by volume, nor is API aware of any instances where such a substance has contaminated drinking water. If EPA finalizes the Draft Guidance, it should correct this assertion.

[11] Four of the six potential pathways established under the UIC program (Draft Guidance at 4) are migration scenarios involving well-siting and construction standards that are already covered by state oil and gas well regulations. Under these state regulations, as Administrator Jackson has testified, there has not been a single documented instance of hydraulic fracturing fluid contaminating USDWs through these pathways or any others. The remaining two UIC program "pathways of contamination" involve either migration of fluids from the injection zone through the confining stratum or direct injection into a USDW. The risk of contamination from diesel fuels through these pathways is very small due to the nature of hydraulic fracturing practices and, in the case of fracturing

support a finding) that diesel fuels are likely to travel through any pathways during the short-term injection of fluids during hydraulic fracturing. If anything, EPA has concluded exactly the opposite.

Notably, EPA does not rely upon any studies in discussing potential pathways of contamination.[12] In other words, EPA has failed to establish any record support for the Draft Guidance. It has been long established that agencies must provide some factual basis for their policy decisions, and "that those facts have some basis in the record," or they are arbitrary and capricious. *See, e.g.*, *NRDC v. SEC*, 606 F.2d 1031, 1053 (D.C. Cir. 1979). EPA does refer to the Secretary of Energy Advisory Board's (SEAB's) recommendation to eliminate the use of diesel fuel as an additive to hydraulic fracturing fluids. Draft Guidance at 6. However, in the case of this recommendation, SEAB did not cite to any specific factual or scientific bases for eliminating diesel fuels. SEAB did not, for example, examine geological data related to hydraulic fracturing, document a pathway that would allow communication between hydraulic fluid injectate and USDWs, or present any documentation of actual impacts to water or other resources from the use of diesel fuels in hydraulic fracturing fluid.[13] Nor did it provide any other analytical support for a ban on diesel fuels in hydraulic fracturing fluid. As such, the SEAB recommendation cannot provide the type of substantial evidence or rationale on which EPA should be basing its decisions and formulating its own policy. Incorporating an empty and equivocal recommendation by reference, devoid of any factual basis or scientific analysis, cannot provide the factual support required to withstand scrutiny under the Administrative Procedure Act.

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of shale formations, the location of shale rock formations far below any drinking water aquifer. Stimulation of shale formations is isolated from USDWs by several thousand feet of impervious rock.

[12] One recent study published in *Marine and Petroleum Geology* found that rock layers act as natural barriers between the site of well stimulation and USDWs. Davies, R.J., *et al.*, Hydraulic fractures: How far can they go?, *Marine and Petroleum Geology* (2012), doi:10.1016/j.marpetgeo.2012.04.001. Based on an extensive compilation of data from several thousand hydraulic fracturing operations in shale plays in the United States, the authors of this study concluded that the possibility of an upward propagating fracture extending more than 1,150 feet vertically is less than 1%. Davies at 4. They determined that "local geology such as variations in lithology, provide natural barriers to propagation because of higher confining stress or high permeability which allows the fluid to bleed off." *Id.* at 5. These variations in geology "provide natural barriers to propagation." *Id.* As a result, the "vast majority of stimulated hydraulic fractures have a very limited extent of < 100 m" (less than 328 feet). *Id.* The single tallest stimulated hydraulic fracture ever recorded in the United States is 588 m (1,929 feet). Given that fracturing of shale formations typically takes place 4,000 to 8,000 feet below any USDW, it is not surprising that there is no record of well stimulation creating fractures that travel high enough to create a pathway to USDWs, and EPA has not identified any mechanism that could overcome natural geological barriers. All of this only confirms Administrator Jackson's testimony to Congress – there are no documented instances of hydraulic fracturing impacting USDWs.

[13] In fact, the SEAB Shale Gas Production Subcommittee Second Ninety Day report acknowledges that the SEAB "shares the prevailing view that the risk of fracturing fluid leakage into drinking water sources through fractures made in deep shale reservoirs is remote." DOE, Shale Gas Production Subcommittee Second Ninety Day Report (Nov. 18, 2011) at 17.

B. The Energy Policy Act of 2005 does not compel EPA to regulate diesel fuels in hydraulic fracturing fluid under the UIC program

Without any demonstrated factual basis for applying the Class II UIC program to the use of diesel fuels in hydraulic fracturing fluids, EPA appears to assert that the amendment to the definition of "underground injection" in SDWA enacted in the Energy Policy Act of 2005 (EPAct) should be interpreted as requiring EPA to develop the Draft Guidance. Draft Guidance at 6. API seriously questions this proposition.

In EPAct, Congress recognized the fundamental difference between brief periods of injection to extract valuable resources and the long term injection of fluids. As such, Congress excluded hydraulic fracturing from the definition of underground injection and thereby prohibited EPA from regulating hydraulic fracturing under the UIC program of the SDWA. 42 U.S.C. § 300h(d)(1)(B)(ii). Congress did carve out diesel fuels from that explicit prohibition, but a carve-out from a statutory exclusion does not compel EPA to regulate the use of diesel fuels as it proposes in the guidance. 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." *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979). "The 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." *Id.*

Under *Alabama Power*, the overall framework of the SDWA counsels EPA *not* to regulate diesel fuels in hydraulic fracturing under the UIC program. Specifically, under Section 1421 of the SDWA, 42 U.S.C. § 300h(b)(1), Congress established that the essential requirements for an effective program under the Act would be regulations necessary to "prevent underground injection which endangers drinking water sources within the meaning of subsection (d)(2) of this section." Subsection (d)(2) in turn defines underground injection to endanger drinking water when the injection (in this case, the injection of hydraulic fracturing fluid with diesel fuel) "may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulator or may otherwise adversely affect the health of persons." Therefore, to regulate an underground injection practice, EPA must make some finding that the practice may reasonably result in contamination.

In addition, Congress specifically limited EPA's authority in regulating oil and gas operations, including "underground injection," under the SDWA to where it is "essential to assure that underground sources of drinking water will not be endangered...." 42 U.S.C. § 300h(b)(2). Absent a finding that regulation is "essential" – and API questions whether any federal regulatory action that duplicates a state regulation can be deemed "essential" – the SDWA prohibits EPA from issuing "requirements which interfere with or impede" oil and gas development. *Id.* Therefore, to regulate hydraulic fracturing activities, EPA must make a finding that regulatory action is "essential" to protect USDWs.

Here, EPA has made no such finding, nor could it given the absence of such evidence in the record EPA has provided with the Draft Guidance. Instead, the analysis in the Draft Guidance of potential effects largely begins and ends with a statement that some constituents of diesel fuels are harmful. Nowhere does EPA attempt to show that there is a mechanism by which hydraulic fracturing fluid with diesel fuels would endanger or threaten drinking water. Quite to the contrary, as noted, EPA has conceded that there has been no documentation of hydraulic fracturing fluid impacting USDWs, and research has shown that natural rock barriers would (and do) prevent communication between fractures and USDWs.[14]

With no evidence to date of the fracturing process impacting USDWs, EPA should, at a minimum, complete its Congressionally-mandated hydraulic fracturing study before deciding whether to move forward with any federal guidance or regulation of this activity. Any interpretive guidance that would apply the UIC program to hydraulic fracturing ought to be based on risks, if any, that are actually documented to arise from the use of diesel fuels in fracturing in scientifically sound, transparent studies, rather than on unsubstantiated concerns.[15]

In short, absent the finding required by the SDWA that is supported by sound science, EPA has no statutory obligation to regulate the use of diesel fuels in hydraulic fracturing operations. Without an evidentiary basis, EPA should leave the continued regulation of well stimulation activities to state regulators. Continuing to proceed in the absence of any factual or scientific basis is arbitrary and capricious.

C. There is no regulatory void that EPA must fill

API strongly believes that there is no need for EPA to move the federal government squarely into the business of regulating how onshore oil and gas wells are developed, an area traditionally

[14] The very notion of regulating a relatively small injection of hydrocarbons (diesel fuel) into a well for the express purpose of producing many, many more hydrocarbons from the same well is somewhat absurd. Injection of diesel, although rare, is no more likely to endanger or threaten drinking water than oil, condensate, gas, or formation water within a producing reservoir. State regulations already govern well integrity during production, and these same regulations apply during any short term injection activity.

[15] In 2009, Congress directed EPA to conduct "transparent, peer-reviewed" research based on "the best available science" and "independent sources of information" to examine "the relationship between hydraulic fracturing and drinking water." H. Rep. No. 111-316 at 109. EPA is in the process of carrying out this study, which is expected to be complete in 2014. However, significant concerns have already been raised about EPA's study design and implementation by the non-profit Battelle Memorial Institute. *See* Battelle, Review of Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources EPA/600/R-11/122 November 2011 (June 2012) (a copy is being submitted as an attachment to these comments). API recommends that EPA address the concerns raised by the Battelle report before using its hydraulic fracturing study to justify future regulation of hydraulic fracturing, including any guidance or regulations with respect to the use of diesel fuels in fracturing fluid.

overseen by the states. In the three states where EPA is the UIC permitting authority and there is significant ongoing and projected future oil and gas development – namely, Pennsylvania, Michigan, and Kentucky – hydraulic fracturing operations are already heavily regulated.[16] These and other states have extensive, on-the-ground experience with onshore oil and gas development, making additional regulation by the EPA unnecessary.

Congress created the UIC program in 1974 due to its perception that state regulation of underground injections was deficient. *See* EPA Office of Water, Technical Program Overview: Underground Injection Control Regulations (2001) at 4 (explaining origin of program). Here, however, states have superior experience with hydraulic fracturing, and many have proactively revised (*e.g.*, Arkansas, Colorado, Montana, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, Texas, West Virginia, Wyoming) or will revise (*e.g.*, Illinois, Indiana, Kansas, New York, Tennessee) their state oil and gas well regulations to address increased onshore development. There is simply no need for EPA to now insert itself into multiple longstanding and continually evolving regulatory processes managed by the various state governments.

Perhaps most prominently, Pennsylvania is one of the three states in which EPA is the UIC Class II permitting authority. There has been and continues to be extensive development of natural gas and natural gas liquids resources in Pennsylvania, primarily due to the use of hydraulic fracturing in the Marcellus Shale formation. Not surprisingly, Pennsylvania has a strong, comprehensive framework regulating hydraulic fracturing, including detailed statutory requirements and agency regulations to ensure the integrity of wells during development, completion, and production. *See generally* 58 Pa. Cons. Stat., Chap. 32; 25 Pa. Code, Chap. 78. Pennsylvania regulates substantially all aspects of well siting; construction; mechanical integrity; abandonment and plugging; monitoring; recordkeeping; reporting; and financial responsibility, among many other activities. *See, e.g.*, 58 Pa. Cons. Stat. §§ 3212-3212.1 (well permitting); *id.* §§ 3215 (well siting restrictions); *id.* § 3217, 25 Pa. Code §§ 78.73, 81-87 (well construction standards); 78.88-89 (mechanical integrity standards); 58 Pa. Cons. Stat. §§ 3222(b)-(d), 25 Pa. Code §§ 78.122-123 (well completion and log reporting requirements and data retention); 58 Pa. Cons. Stat. § 3220, 25 Pa. Code §§ 78. 91-98, 124 (well plugging and certification requirements); 58 Pa. Cons. Stat. § 3225, 25 Pa. Code § 78.301-314 (bonding requirements); 58 Pa. Cons. Stat. §§ 3218, 3218.1, 3219.1 (response to incidences of potential well contamination, including rebuttable presumption of responsibility for operators). These provisions also include requirements for operators to perform pre-drilling and pre-well stimulation testing of USDWs in order to contest their

[16] EPA is the primary permitting authority for UIC Class II wells in ten states: Arizona, Hawaii, Iowa, Kentucky, Michigan, Minnesota, New York, Pennsylvania, Tennessee and Virginia. In several of these states, including Hawaii, Iowa, and Minnesota, there is little or no development. New York currently has an indefinite moratorium on oil and gas development using "high volume hydraulic fracturing," although the state is expected to issue new, comprehensive regulations in the near future. The remaining 40 states have "primacy" (i.e., the primary permitting responsibility) for UIC Class II wells.

presumptive liability for any contamination that may occur, *see* 58 Pa. Cons. Stat. § 3218(e), and detailed disclosure requirements for hydraulic fracturing fluid. *Id.* § 3222.1.[17]

Two other states where EPA is the UIC permitting authority, Kentucky and Michigan, also have expansive regulations governing the hydraulic fracturing of oil and gas wells. These regulations already cover the key aspects of the Draft Guidance:

- Well siting: 805 KAR 1:030; Mich. Admin. Code r. 324.301(1)(b) (including well siting restrictions for areas near fresh water wells and public water supply wells)
- Area of review: 805 KAR 1:020 § 4, 805 KAR 1:030; Mich. Admin. Code r. 324.201(2), 421.
- Well construction and integrity standards: 805 KAR 1:020 (including special casing and cementing standards for the protection of fresh water zones); 805 KAR 1:130 (including provisions for "deep well" drilling below 4,000 feet); Mich. Admin. Code r. 324.201(2)(j), (k), 411, 422.
- Injectate chemical disclosure or approval: Mich. Admin. Code r. 324.405
- Recordkeeping and reporting: 805 KAR 1:020 § 5; Mich. Admin. Code r. 324.416-419.
- Well plugging and abandonment standards: 805 KAR 1:060; Mich. Admin. Code r. 324.901-904
- Financial responsibility: KRS 353.590(5), 805 KAR 1:050; Mich. Admin Code r. 324.210-16

Both states also have additional regulations governing horizontal drilling operations. *See* 805 KAR 1:140; Mich. Admin. Code r. 324.201(k), 202, 421.

The Draft Guidance suggests that in some respects existing state oil and gas regulations may not be adequate, asserting, among other concerns, that the state rules do not address risks related to pressure increases from hydraulic fracturing injections that would be addressed under UIC rules. Draft Guidance at 24. EPA should reevaluate this contention as it reflects a fundamental lack of understanding of the geologic factors that affect potential transmission of pressure as well as operational practices used during hydraulic fracturing. As discussed above, the pressures used to cause upward fracture propagation are not nearly intensive enough to penetrate the geologic barriers between well stimulation sites and USDWs.

[17] On July 31, 2012, a bipartisan group of Congressional delegates from Pennsylvania wrote to the Administrator to emphasize the disruption that this Draft Guidance would have on the State's already robust oil and gas regulations. They noted the independent endorsement of Pennsylvania regulations by the State Review of Oil and Natural Gas Environmental Regulations (STRONGER), comprised of a panel representing state regulators, environmental groups, and industry.

As should be clear by now, for EPA to require compliance with the Class II UIC program through guidance without any supporting evidence or scientific analysis, a clear lack of understanding of geological factors and operational practices, and in the face of existing and effective state regulation, is arbitrary and capricious.

II. If EPA Is Going to Regulate Injection Of Diesel Fuels During Hydraulic Fracturing Under the UIC Program, It Should Not Use the UIC Class II Well Rules, But Should Create A Separate Program or "Subclass" of Wells

In its Draft Guidance, EPA proposes to apply EPA's UIC Class II regulations to hydraulic fracturing.[18] Draft Guidance at 1. Because the UIC rules were not designed for short-term applications, API urges EPA to reconsider this approach. The agency need not and should not attempt to pound a square peg into a round hole. Instead, if EPA insists on regulating hydraulic fracturing using diesel fuels, then it should create suitable regulations by beginning a new rulemaking to create a separate class or subclass of UIC wells to address the injection of diesel fuels during hydraulic fracturing. Issuing interpretative guidance that seeks to conform the Class II rules to the realities of hydraulic fracturing will result in permits with terms that are different from or even contrary to existing UIC Class II regulations. That would only subject the permit recipient to delays, uncertainty, and potential liability, as well as generally discourage oil and gas development at a time when the economy can ill afford it.

A. Class II well regulations were not designed to regulate either short term hydraulic fracturing or long term oil and gas production

As EPA recognizes, UIC Class II rules were not designed to regulate development of oil and gas using hydraulic fracturing. The rules were designed to regulate wells used for long-term, continuous injection of fluids into underground formations. In contrast, hydraulic fracturing is performed to stimulate the production of oil and gas from underground formations; fluids are injected at pressure for a short duration, and some are returned to the surface and removed. Applying the Class II UIC program to hydraulically fractured wells where diesel fuels are injected would impose rules that are both unnecessary and incompatible with the short-term nature of hydraulic fracturing.

EPA has long understood that the Class II UIC rules do not fit hydraulic fracturing. As EPA has explained, Class II well regulations "did not seem entirely appropriate" for hydraulic fracturing operations because they often involve "a one-time exercise of extremely limited duration" that is

[18] We note that EPA's definition of "hydraulic fracturing" is itself vague, Draft Guidance at 5, as it is not clear whether, for example, EPA is seeking to cover flushing activity which may use diesel fuels. If so, that would potentially be at odds with the statutory definition of "underground injection" which "means the subsurface emplacement of fluids by well injection." SDWA Section 1421(d), 42 U.S.C. § 300h(d).

"ancillary to the well's principal function of" producing gas or oil. 65 Fed. Reg. 2,889, 2,892 (Jan. 19, 2000). It found that subjecting such wells to "all of the Class II regulatory requirements" was "inappropriate." *Id.*

The Eleventh Circuit's decision in *LEAF v. EPA*, 276 F.3d 1253 (11th Cir. 2001) did not question the factual bases for EPA's evaluation. In fact, the incompatibility of hydraulic fracturing with Class II UIC regulation prompted Congress to intervene and exempt hydraulic fracturing from the SDWA, as discussed, *supra*. Applying Class II regulations that do not fit with the purpose and nature of hydraulic fracturing would needlessly burden oil and gas development and significantly interfere with well stimulation activities. If EPA now seeks to repudiate its prior longstanding determination that Class II UIC regulations are inappropriate for hydraulic fracturing operations, then it should do so explicitly through a formal rulemaking. *See, e.g., Paralyzed Veterans of America v. D.C. Arena*, 117 F.3d 579 (D.C Cir. 1997). However, based on the information presented by EPA to date, such a change in position lacks any factual or scientific bases and would therefore be arbitrary and capricious.

1. UIC regulatory limits on injection pressure may affect hydraulic fracturing, and EPA's proposal to institute *ad hoc* pressure limitations is no cure

40 C.F.R. § 146.23(a)(1) bans the injection of fluids at pressures beyond "a maximum which shall be calculated so as to assure that the pressure during injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to the USDWs." The appropriate state regulatory agency and oil and gas operators ensure hydraulic fracturing is isolated from USDWs, including shale formations thousands of feet below USDWs, in accordance with best well construction and operating practices. API is concerned that the substantial discretion afforded to permit writers under the Draft Guidance, combined with the ambiguity of 40 C.F.R. § 146.23(a)(1), may lead to arbitrary and inconsistent determinations of whether and when a proposed injection pressure would "assure" no fracturing of the confining zone.

EPA appears to try to circumvent this problem by encouraging permit writers to create *ad hoc* "pressure limitations," but without providing any other direction to permit writers on how to establish those limitations. Draft Guidance at 24. Without further specificity, these *ad hoc* measures afford permit writers enormous discretion, and only underscore the incompatibility of the Class II UIC regulations. A permit writer would apparently have the discretion to impose arbitrary pressure limitations that would prohibit an operator's ability to sufficiently fracture the formation, thus thwarting the very purpose of hydraulic fracturing and efficient and cost-effective oil and gas development. Such arbitrary limits could even conflict with existing state requirements for hydraulically fractured wells.[19]

Alternatively, a permit writer could arbitrarily select a pressure level which would allow successful fracturing and well completion. However, the Draft Guidance does not amend the Class II regulations. Thus, third parties that oppose oil and gas development may not be foreclosed from challenging the permit under SDWA § 1449, alleging that the permit violates the prohibition against creating the fractures contemplated in 40 C.F.R. § 146.23(a)(1) for failing to "assure" that particular third party. While we believe that such a challenge would not survive a motion to dismiss, providing an additional outlet for third parties to seek frivolous judicial review would further slow development, discourage investment, and in turn impact economic development, jobs, and energy security.

2. The Class II area of review regulations would impose unnecessary burdens on operators with no environmental benefits, and would be more appropriately considered in the context of horizontal drilling, not hydraulic fracturing

Another incompatibility between hydraulic fracturing and the UIC Class II regulations are the area of review (AoR) requirements. An AoR for Class II wells typically involves an assessment of conduits of potential fluid movement within a "zone of endangering influence" or a radius of at least ¼ mile around the well. 40 C.F.R. § 146.6. The Draft Guidance addresses the AoR, but does so by encouraging permit writers to extend this ¼ mile radius outward to cover the entire length of the horizontal well bores frequently used in shale oil and gas production. Draft Guidance at 17-18.

If applied to hydraulic fracturing with diesel fuels as EPA proposes, the AoR requirement could force permit applicants to conduct expensive assessments that would cover many square miles where no reasonable evidence of environmental risk has been identified. There is no logical nexus or factual basis for requiring such a burdensome assessment. The fluids containing diesel fuels would be injected for a short period into well bores separated from USDWs by several thousand feet of impervious rock. In contrast, the Class II UIC rules created the AoR concept because fluids injected into disposal wells are injected continuous over many years. They were clearly not created for short-term injections where fluid is recovered soon after injection.[20]

[19] API also requests that EPA clarify whether and how the Draft Guidance affects existing agency guidance regarding injection well pressure. *See, e.g.*, EPA, "Maximum Injection Pressure Requirements for Class II Enhanced Recovery Wells and Wells Disposing of Produced Brines, Ground Water Program Guidance No. 37," *available at* http://www.epa.gov/ogwdw/uic/pdfs/guidance/guide-memo_guidance-37_max_inj_press_class2_1985.pdf.

[20] As EPA noted in approving revisions to Alabama's UIC program, "since injection of fracture fluids through these wells is often a one-time exercise of extremely limited duration (fracture injections generally last no more than two

Again, lacking any factual basis or analysis in support of such burdensome and unnecessary requirements, the Draft Guidance is arbitrary and capricious.

But the inclusion of guidance regarding AoR requirements at all is puzzling: this topic relates most closely to the drilling of horizontal wells, not hydraulic fracturing with diesel fuels. If EPA believes, as they stated in the Draft Guidance, that the existing regulations are not adequate or additional interpretation is needed for the application of existing regulations under the UIC program, then the agency needs to segregate this topic from any actions related to hydraulic fracturing using diesel fuel to prevent stakeholder misconceptions and ensure clarity and certainty around the regulations. For example, if EPA finalizes the proposed AoR content in guidance regarding hydraulic fracturing using diesel fuel, would it be applicable to all horizontal wells, or only for horizontal wells that are hydraulically fractured using diesel fuel?

The Draft Guidance also allows a permit writer to "modify" the ¼ mile fixed radius so that it is "sufficiently protective" of USDWs. Draft Guidance at 17-18. These terms are exceptionally vague and offer no clarity or certainty for operators, particularly when this determination is delegated to various individual permit writers. EPA is also attempting to modify its existing position on zone of endangering influence equation. *Id.* at 18. Issues such as these only provide additional support for API's position that EPA should be using the formal rulemaking process to regulate, not informal guidance.

3. Existing Class II monitoring and reporting requirements are not designed for hydraulic fracturing

The extensive Class II monitoring and reporting requirements are likewise inappropriate for hydraulic fracturing using diesel fuels. Class II permittees must monitor the "nature of injected fluids," injection pressure, flow rate, and cumulative volume of fluids injected on a monthly, weekly, or daily basis. 40 C.F.R. § 146.23(b). These data must be retained along with calibration, maintenance, and monitoring data. 40 C.F.R. § 144.51(j). Permittees must submit an annual report summarizing all of the collected data, including monthly records for injected fluids and any major changes in the characteristics or sources of fluid. *Id.* § 146.23(c). These requirements make little sense for activities where fluids from a single source are injected and recovered soon thereafter, such as hydraulic fracturing. Permittees, at their own expense and potentially causing delays to their operations, would have to submit reports to the federal government showing no injection activities, no pressures, no flow rates and no cumulative volume of fluids in the well. Such paperwork requirements without benefit are exactly the type of rules the President has sought to prevent. *See* Executive Order 13563 (agencies "must" craft

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hours) ancillary to the well's principal function of producing methane, it did not seem entirely appropriate to ascribe Class II status to such wells, for all regulatory purposes, merely due to the fact that, prior to commencing production, they had been fractured." 65 Fed. Reg. 2,889, 2,892 (Jan. 19, 2000).

regulations "only upon a reasoned determination that [their] benefits justify their costs," that they "impose the least burden on society," and "maximize net benefits....").

4. The Class II UIC mechanical integrity testing and recordkeeping requirements are unnecessary and duplicative of state rules

The mechanical integrity testing required under the Class II program needlessly duplicates state law requirements. Class II regulations require mechanical integrity testing "with sufficient frequency to be representative" and recordkeeping to demonstrate "the absence of significant changes" in injection pressure and flow rate. 40 C.F.R. § 146.8. The Draft Guidance does not state with specificity how this would be applied to hydraulic fracturing operations using diesel fuels. If EPA were only to require an initial pressure test under 40 C.F.R. § 146.8(b)(1), then the Draft Guidance would be unnecessarily duplicative of existing state mechanical integrity regulations, and may potentially conflict with those state rules. Pennsylvania, like most states, has existing regulations governing mechanical integrity, inspection, and reporting that were explicitly adopted and designed for gas and oil drilling operations. *See, e.g.*, 25 Pa. Code §§ 78.73, 88; *see also* 805 KAR 1:020, 1:130, 1:140 (Kentucky regulations governing well construction, well integrity, and reporting, including different requirements for "deep wells" and horizontally drilled wells); Mich. Admin. Code r. 324.201(2), 202, 411, 416-419, 421 422 (Michigan regulations governing well construction, well integrity, and reporting, including different requirements for horizontally drilled wells).

The Draft Guidance, however, appears to require operators to comply with mechanical integrity testing requirements for as long as a well is in operation, even if it has not had fluid injected into it for years. The Draft Guidance points out that owners and operators of Class II wells must conduct mechanical integrity tests once every five years during the life of the well, Draft Guidance at 24, and infers that the regulations will apply "at all times, *including* during times of [hydraulic fracturing] using diesel fuels...." *Id.* (emphasis added). Such a view would require well operators to halt production and needlessly record and report information years after the injection of hydraulic fracturing fluid has ceased. This is further evidence of how the UIC program is ill-suited to regulate hydraulic fracturing. At a minimum, EPA should justify why periodically halting production and submitting redundant information is essential to protect USDWs.

5. The Class II UIC well construction requirements are unnecessary and duplicative of state regulations

By applying Class II rules, the Draft Guidance would impose new and significant federal restrictions on the construction and operation of new and existing oil and gas wells for which operators use diesel fuels in injection fluids. Draft Guidance at 20-26. This federalization of oil and gas development through informal guidance would reverse decades of duly enacted law and policy that have given primary responsibility to the states to manage the siting, construction, development, and operation of oil and gas wells.

Indeed, for the first time, it would effectively place many, if not most, aspects of oil and gas well development under EPA control simply by virtue of the use of any amount diesel fuels in hydraulic fracturing fluids. This goes far beyond EPA's traditional regulatory role and the extremely narrow carve-out enacted by EPAct. EPA has never regulated oil and gas well construction and completion, chemical disclosure, mechanical integrity, well abandonment, plugging, financial responsibility, or virtually any other major aspect of oil and gas production, and it should not do so now. This field has been traditionally filled by state oil and gas commissions, who have decades of experience in the management of oil and gas activities and are far better versed in hydraulic fracturing operations than EPA. The Draft Guidance's application of duplicative federal regulations would result in considerable uncertainty due to inevitable inconsistencies with these state regulations. At worst, operators will be forced to comply with Class II regulations that are not designed for hydraulic fracturing operations, while state regulations that are a better fit for the activity may be superseded.[21]

This proposed sea change is wholly unnecessary to protect USDWs, because there are existing comprehensive state regulations that already govern well construction, including in Pennsylvania, the state in which the Draft Guidance would arguably have the greatest impact. *See, e.g.*, 58 Pa. Cons. Stat. §§ 3217, 25 Pa. Code §§ 78.71-78.88; *see also* 805 KAR 1:020, 1:130, 1:140; Mich. Admin. Code r. 324.201(1), 201(k), 202, 421. Pennsylvania, like other states, already has regulations specifically designed to protect groundwater. This includes requiring surface casings to be set in place and properly cemented to protect the lowest USDW. 58 Pa Cons. Stat. § 3217(b), 25 Pa. Code § 78.83(c); *see also* 805 KAR 1:020 (casing and cementing required 30 feet below the deepest known fresh water zone); Mich. Admin. Code r. 324.408 (casing and cementing required 100 feet below all fresh water strata); U.S. Dep't of Energy, Office of Fossil Energy, National Energy Technology Laboratory, State Oil and Natural Gas Regulations Designed to Protect Water Resources (May 2009); Interstate Oil & Gas Compact Comm'n, Summary of State Statutes and Regulations for Oil and Gas Production (2007 ed.). EPA does not allege that these regulations are inadequate in any way or attempt to explain why federal well construction regulations are even needed when state laws are already in place. Without any factual basis as to why existing state regulations must be supplemented, or potentially preempted outright, the Draft Guidance is arbitrary and capricious.

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[21] The Draft Guidance may eventually compel operators to apply for Class II permits with respect to substantially all wells drilled (at least in non-primacy states) in the event that a decision is made to use diesel fuel in hydraulic fracturing much further down the road after a well is designed, drilled, and constructed. It seems highly unlikely that Congress intended to force so many wells under the UIC program, and yet this is the result compelled by the guidance if an operator wishes to preserve the option to use any amount of diesel fuel in hydraulic fracturing fluids.

6. Class II UIC plugging and abandonment regulations are inconsistent with production wells

If the Class II UIC program were to apply to hydraulic fracturing, once an operator injects hydraulic fracturing fluid with diesel fuel to stimulate a well, the operator would be required to submit a plugging and abandonment plan to EPA. 40 C.F.R. §§ 144.31(e)(10). However, after injection, the well will potentially produce oil, gas, and/or natural gas liquids for a significant period of time – sometimes thirty years or more. There is no utility in requiring operators to submit a plugging and abandonment plan immediately after well stimulation. It would mean that well owners would be expected to submit, and adhere to, a plugging and abandonment plan for a production well that, at the time of closure, would not have had diesel fuels injected for decades. Closure should only be addressed once production has ended.

Moreover, states including Pennsylvania already have their own plugging and abandonment requirements to address the closure of wells *after* production has been completed. *See, e.g.*, 58 Pa. Stat. § 3220, 25 Pa. Code §§ 78.91-98; 805 KAR 1:060; Mich. Admin. Code r. 324.901-904. The Draft Guidance makes no claim that state plugging and abandonment regulations are somehow inadequate or that there is some regulatory void for EPA to fill. As with the other requirements that would be duplicative of state regulations, EPA provides no basis or explanation as to why application of the Class II UIC program's regulations would be necessary. Without such an explanation or basis in the record, the Draft Guidance is arbitrary and capricious.

7. The Class II UIC permit review requirements would be wasteful for hydraulically fractured wells

The UIC program regulations require the EPA regional director to review a UIC permit once every 5 years to determine if it should be modified, revoked, reissued, or terminated. 40 C.F.R. § 144.36. This is yet another example of the UIC regulations' poor fit for hydraulic fracturing operations. It makes no sense to require periodic reviews of a permit for an oil or gas production well years after a one-time injection of hydraulic fracturing fluids that lasted only a short period of time.

8. Imposition of UIC financial responsibility requirements is duplicative and unnecessarily burdensome

Under the Draft Guidance, well operators would be subject to financial responsibility requirements under both federal law, 40 C.F.R. §§ 144.52(a)(7), 144.63, and state regulations. These state financial responsibility regulations apply to oil and gas wells generally, *see, e.g.*, 58 Pa. Stat. § 3225, 25 Pa. Code §§ 78.2, 301-14; KRS 353.590(5); 805 KAR 1:050; Mich. Admin. Code r. 324.210-16, and there is no reason to believe that a state would, or could, grant relief to a well operator from state requirements simply because an oil or gas well was concurrently regulated under the federal UIC program. Again, EPA has not explained why state financial responsibility regulations are inadequate, or from where it derives the authority to dictate financial responsibility terms for oil and gas production wells decades after injection of hydraulic fracturing fluids that contained any amount diesel fuel. Given the lack of explanation and the absence of any factual support for an additional layer of unnecessary federal regulation, requiring well operators to provide duplicative financial assurances is arbitrary and capricious.

B. Rather than force hydraulic fracturing to fit under UIC Class II, if EPA moves forward with regulating the activity under UIC, EPA should create an appropriate set of new UIC regulations

If EPA nonetheless moves forward with regulating wells hydraulically fractured with fluids containing diesel fuels under the UIC program, then the appropriate step would be to create new rules that are designed specifically for that activity. This may take the form of a new "Class VII" UIC classification,[22] or a new "subclass" of Class II, such as that created for enhanced oil recovery or produced water disposal.

We first note, and as the U.S. District Court for the District of Columbia recently reaffirmed, where an EPA guidance document provides directions to permit writing staff, EPA is required to subject such directions to formal notice and comment rulemaking under the APA. *Nat'l Mining Ass'n v. Jackson*, 10-cv-01220 (D.D.C. July 31, 2012) (Slip Op.), at 12-15, 33. Here, the Draft Guidance explicitly and repeatedly instructs EPA Regional offices to require UIC permits whenever diesel fuel is used in hydraulic fracturing fluids. *See*, *e.g.*, Draft Guidance at 1. Accordingly, we strongly urge EPA to begin a new rulemaking to create a new class or subclass of UIC well for hydraulic fracturing using diesel fuels.

This new class should include regulations that are suitable and appropriate for hydraulic fracturing with fluids containing diesel fuels. For example, appropriate rules would eliminate pressure injection ambiguity, long-term monitoring and reporting requirements, and other regulations that are inappropriate for short-duration activities. New rules should also be crafted to avoid duplication of and conflict with existing state oil and gas regulations, and defer to these regulations when appropriate. For example, the new rules could allow states to draw on their own regulations to create a sensible and flexible program that avoids duplication and minimizes the unnecessary burdens placed on operators, as directed by President Obama in Executive Order 13563. In other words, the rules should be tailored to the nature of hydraulic fracturing activities and the limited, short-term injection of fluids containing diesel fuels, while minimizing the regulatory and cost impact on operators who produce the oil and natural gas on which our nation's economy relies.

[22] If EPA were to create a new Class VII, API further suggests that it do so under the auspices of 42 U.S.C. § 300h-4 (state primacy over UIC programs).

Ideally, these new regulations would establish a general authorization or permit by rule that details basic requirements for well operators injecting hydraulic fracturing fluids with diesel fuels.[23] Well operators could submit a notice of intent and comply with the general authorization. These regulations could be similar to the area permit program under 40 C.F.R. § 144.33(a), except that wells need not have a common owner or operator. Such a general permit system would avoid the extensive costs and delays that are usually associated with individual permitting, especially for onshore oil and gas activities at the federal level.[24] A general authorization program would be particularly suitable for hydraulic fracturing operations given their short duration, the recovery of the injectate, and extremely low risk to USDWs.

Creating a new class of wells also provides states that have not sought primacy for UIC Class II wells the ability to seek primacy for hydraulic fracturing activities using diesel fuels and thereby maintain state permitting authority over oil and gas development critical to state and local economies. An operator's use of diesel fuels should not be an entrée to wholesale federal regulation of the operation of a well for the many years after injection when it is producing oil or gas. As noted, states already have extensive monitoring, recordkeeping and reporting, plugging and abandonment, and financial responsibility regulations for oil and gas production wells. *See, e.g.*, 25 Pa. Code § 78.2 (all oil and gas wells are subject to state oil and gas well regulations without provisions for exemptions).

Creating a new class or subclass of wells that builds on existing state regulations avoids imposing a concurrent scheme of regulation through a guidance document which would likely result in conflicts and questions about whether EPA's UIC Class II regulations would preempt other aspects of state oil and gas well regulations. Well operators could be forced to comply with Class II regulations that are not designed or suited for hydraulic fracturing, as discussed, while state regulations that are a better fit for the activity might be superseded.[25]

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[23] *See* "Maximum Injection Pressure Requirements for Class II Enhanced Recovery Wells and Wells Disposing of Produced Brines, Ground Water Program Guidance No. 37," at 3 ("Since it was the Agency's intent to *relieve owners or operators of enhanced recovery injection wells of the transaction costs associated with individual permits* ...") (emphasis added).

[24] *See* FN28 and accompanying text, *infra*.

[25] EPAct gave no indication that Congress actually intended for EPA to bootstrap hydraulically fractured oil and gas wells where diesel fuels are used into the cradle-to-grave UIC program. This lack of Congressional intent is critical when evaluating whether the Draft Guidance can require preemption of state oil and gas well regulations. *See, e.g., Wisconsin Public Intervenor v. Mortier*, 501 U.S. 597, 604-05 (1991) (preemption "turn[s] on congressional intent"); *Maryland v. Louisiana*, 451 U.S. 725, 747 (1981) (state laws are preempted where they obstruct "the accomplishment and execution of the full purposes and objectives of Congress.") (quotation omitted). In assessing whether the UIC program regulations should actually preempt state oil and gas regulations, EPA must "start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress." *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947).

Moreover, the discretion that would apparently be given to EPA permit writers in trying to make UIC Class II rules apply to hydraulic fracturing using diesel fuels adds another layer of uncertainty and complexity that counsels strongly in favor of proposing new rules to address hydraulic fracturing using diesel fuels directly. Under the proposed guidance, well operators could face having to comply not only with Class II UIC well construction regulations that were not designed for hydraulic fracturing operations, but also the Draft Guidance's ambiguous recommendations, such as advising permit writers to "take extra precautions" for hydraulically fractured wells using diesel fuels and to "consider additional testing requirements" for demonstrating well integrity. Draft Guidance at 21-22. The Draft Guidance effectively contemplates displacing expert state regulators and long-standing state well construction requirements with a regime of ill-suited Class II UIC regulations, plus whatever other requirements that individual UIC permit writers deem appropriate on any given day for any given well.

More importantly, the Draft Guidance's explanation of how these requirements would apply shows that EPA's regulation of these wells would be completely untethered from the injection of fluids with diesel fuels, which is the only aspect of hydraulically fractured well operations that EPA is arguably authorized to regulate. EPA states that the imposition of well construction requirements at 40 C.F.R. §§ 144.52 and 146.22, as well as the best practices outlined in the two SEAB reports, is necessary "to avoid methane migration and leakage during production," but provides no explanation as to why these requirements would reduce the risk of methane migration. Draft Guidance at 20.[26] Avoiding methane migration is not a concern unique to hydraulic fracturing using diesel fuels.

In addition to other issues described here, the alternative, individual permit system contemplated by the Draft Guidance would likely result in significant delays in oil and gas development – delays that will impede development and the associated economic growth.[27] Under a Class II

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[26] It should be noted that the Draft Guidance relies on API's Hydraulic Fracturing Operations – Well Construction and Integrity Guidelines (2009) in discussing well design and construction standards and mechanical integrity testing for hydraulically fractured wells. Although API does not support this Draft Guidance, if EPA is going to issue detailed standards for hydraulically fractured oil and gas wells where diesel fuels are used, then the API best practice guidelines provide the appropriate framework for ensuring that the industry continues to have an unparalleled record of safe operations, as it has had over the past six decades in which hydraulic fracturing has been used.

[27] *See, e.g.*, IHS Global Insight, Economic and Employment Contributions of Shale Gas in the United States (Dec. 2011) (shale gas development supported 600,000 jobs in 2010); PriceWaterhouseCoopers, Shale Gas: A renaissance in U.S. Manufacturing (Dec. 2011) (estimating that shale gas development could lower manufacturing costs by $11.6 billion and support 1,000,000 workers by 2025); American Chemistry Council, Shale Gas and New Petrochemicals Investment: Benefits for the Economy, Jobs, and U.S. Manufacturing (Mar. 2011) (natural gas liquids could add up to 395,000 jobs, raise $4.4 billion in annual tax revenue and spur $16.2 billion in capital investment). In Pennsylvania alone, shale gas development added 44,000 new jobs while raising $389 million in

permitting regime, an operator intending to hydraulically fracture a well using diesel fuels could not perform an injection until it has obtained a permit, submitted a notice of completion of construction to the regional director, and the EPA region has inspected or reviewed the new injection well. 40 C.F.R. §§ 144.11, 51(m)(1), (2). Although only a small fraction of hydraulically fractured wells use diesel fuels in their injectate, an individual permitting system would still strain EPA regional office resources. Already strained EPA regional offices are unlikely to have the personnel to process individual permits in a timely manner and inspect wells upon the completion of construction. Even assuming adequate funding and staffing at the EPA regional offices, the requisite 30-day comment period, 30-day notice of any public hearing, and time for EPA to respond to comments and issue a permit would likely add many months of delay. In the case of the federal Bureau of Land Management, which reviews each application to drill on federal lands, 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%) over the last 2 years.[28] Moreover, an individual permit could result in separate legal challenges to each permit, as even when a UIC permit is issued, it could be subject to appeal and further judicial proceedings. *See* 40 C.F.R. § 124.19 (opportunity to appeal UIC permits to EPA Environmental Appeals Board within 30 days). The result will be extensive regulatory delays and well operators will have no certainty as to when they may begin their injection. Regulatory certainty is especially important for hydraulic fracturing operations which must frequently coordinate large but temporary mobilizations of expensive equipment and labor.

III. If EPA Insists On Regulating Hydraulic Fracturing Using Diesel Fuels Under the Class II UIC Program, the Agency Should Rely On the Settled Definition of "Diesel Fuels" in Existing EPA Regulations

The Draft Guidance proposed to define "diesel fuels" by reference to six Chemical Abstract Service Registry Numbers (CAS numbers). If EPA finalizes the Draft Guidance, API supports as a general principle the use of specific CAS numbers, rather than any of the descriptive alternative definitions that lack clarity, defy common understanding, and subvert Congressional intent. However, the definition proposed by the Draft Guidance should not extend beyond the established and well-understood definition of "diesel fuel" under EPA's own existing rules.

A. Only three of the six CAS numbers meet the Title II definition of "Diesel Fuels"

state and local tax revenues and over $1 billion in federal tax revenue in 2009. Considine, *et al.*, The Pennsylvania University Department of Energy and Mineral Engineering, The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update (May 24, 2010).

[28] *See* EIS Solutions, Employment, Government Revenue, and Energy Security Impacts of Current Federal Lands Policy in the Western U.S. (Jan. 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.

The Draft Guidance should define "diesel fuels" with reference to EPA's existing regulatory definition of "diesel fuels" for purposes of Title II of the Clean Air Act. Under 40 C.F.R. § 80.2(x), diesel fuel is (1) a fuel, (2) sold in the United States, (3) that is suitable for use in diesel engines, *and* (4) is commonly or commercially known as No. 1 or No. 2 diesel fuel, (5) a non-distillate fuel other than residual fuel with comparable physical and chemical properties, such as biodiesel, or (6) a mixture of No. 1, No.2 or non-distillate diesel fuels. This is the definition that EPA uses to actually regulate the use of diesel fuels and diesel fuel additives used in motor vehicles, motor engines, and non-road diesel engines. This long-standing definition of diesel fuels is undoubtedly what Congress had in mind when it passed the EPAct. *See Lorillard v. Pons*, 434 U.S. 575, 580-81 (1978) (Congress is presumed to be aware of prior regulatory interpretations when it enacts a new law). The Draft Guidance fails to even acknowledge the pre-existing definition of "diesel fuel," preferring instead to create from whole cloth a new definition (and, in the accompanying Federal Register notice, several additional alternative definitions). Draft Guidance at 6-7. As outlined here, API urges EPA to reconsider this approach – the Agency should use its own pre-existing definition rather than create a new one.

Under EPA's pre-existing Title II definition of diesel fuel, API agrees that three materials[29] listed in the Draft Guidance are properly defined as diesel fuels:

- CASRN 68476-34-6 – Diesel No. 2
- CASRN 68476-30-2 – Fuel Oil No. 2
- CASRN 68334-30-5 – Diesel Fuel

We believe that, in order to ensure clarity, certainty, and consistency, as well as to comply with the intent of Congress, EPA should rely on its pre-existing definition of diesel fuel and limit the Draft Guidance to these three CAS numbers. Indeed, using the existing definition eliminates any need for EPA to create an entirely new definition by way of a complex, informal guidance document. It would also be consistent with Executive Order 13563, directing that agencies develop fewer and more streamlined approaches to regulation.

B. EPA should eliminate the other three CAS numbers From the Draft Guidance's definition of diesel fuels

The remaining three materials should not be included in the proposed definition of diesel fuel. Taking them in turn:

1. CASRN 8008-20-6

[29] Although EPA uses the term "compound" to refer to materials that it proposes to include in the definition of diesel fuels, the six CAS numbers describe materials or that are mixtures of many compounds (primarily hydrocarbons) within defined boiling ranges.

CASRN 8008-20-6 is kerosene, which is not a diesel fuel. It is not Diesel No. 1, Diesel No. 2, or a non-distillate diesel. When used as a fuel it is used in spark ignition engines, usually after the engine is started and warmed up with gasoline. Therefore, kerosene does not even meet the proposed criteria listed in EPA's definition "A," which would require a material to be able to be "used to run a diesel engine." 77 Fed. Reg. at 27,454.

EPA apparently included kerosene based on a reference in James G. Speight & Baki Özüm, Petroleum Refinery Processes (Marcel Dekker, Inc. 2000). Draft Guidance at 7. This source, however, lists diesel fuel as *one of many* consumer products *of the kerosene petroleum fraction*. It addresses the several products that may originate from this fraction of crude oil, and does not identify kerosene as a potential fuel for diesel engines. Kerosene itself is a separate product within the kerosene fraction, as noted in the source. *See* Petroleum Refinery Processes (2002 ed.) at 633, Table 19.1 (listing kerosene as a "consumer product" used for "range oil, stove oil"). Kerosene and diesel fuel are different products used for different purposes, even though they are both part of the kerosene petroleum fraction.

EPA also appears to have listed kerosene because a "common synonym" includes "marine diesel fuel," even though the marine engines that use kerosene are spark ignition engines. This reliance on "common synonyms" is unsupported and unscientific. EPA provides no indication of whether and how "marine diesel fuel" is used as a common synonym for kerosene, nor documents why EPA believes that usage is accurate (as outlined here, we submit it is not). Including kerosene, or any other material, within the definition of "diesel fuel" based on a putative colloquial usage is not scientifically defensible.

EPA also refers generally to unspecified material safety data sheets ("MSDS") as support for its definitions of diesel fuels. To the extent that a MSDS may use the term "marine diesel fuel" when referring to kerosene, EPA should bear in mind that precise classifications of materials is not the purpose of a MSDS. A MSDS provides safety instructions to those who handle a material and may be directly exposed to the material, such as a first responder. *See, e.g.*, 29 C.F.R. §§ 1910.2000(a)(2) (purpose of MSDS is to communicate "information concerning hazards and appropriate protective measures to employees"); 1200(c) (an MSDS will include a "common name" which includes "any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name"). Catering to colloquial usages, even if technically incorrect, may be important for safety purposes in order to encompass the broadest range of considerations possible for first responders and workers potentially subject to exposure. EPA should not, however, perpetuate such errors in establishing a definition of diesel fuel for purposes of obtaining a specific regulatory permit.

Given these errors, EPA should exclude kerosene from its list of diesel fuels. The Draft Guidance's lone instance of factual support for including kerosene is clearly erroneous and contradicts EPA's conclusion. Otherwise, EPA's reliance on unsupported and unscientific colloquial usages of the term "marine diesel fuel" is arbitrary and capricious.

2. CASRN 68410-00-4

This CAS number refers to petroleum distillates/crude oil, which are not a diesel fuel. EPA appears to have included petroleum distillates/crude oil based on a "common synonym" for this material being "diesel," citing EPA's Substance Registry Service (SRS) as the source of this synonym. However, SRS does not list "diesel" as a synonym for this material.[30] *See* http://ofmpub.epa.gov/sor_internet/registry/substreg/searchandretrieve/searchbylist/search.do#. Nor does EPA provide any explanation of how or why "diesel" would be a synonym for petroleum distillates/crude oil (*e.g.*, who calls it diesel, in what context or whether that usage is accurate).

Regardless, any use of diesel as a synonym for either petroleum distillates or crude oil is inaccurate. "Petroleum distillates" is a term encompassing an extremely broad range of chemical products derived from petroleum and includes many products that are not diesel fuel, such as gasoline, paraffin wax, asphalt, butane, mineral oil, and anything else that may be derived from the distillation of petroleum.

Further, the SRS description of the chemical properties of this material shows that it varies significantly from EPA's proposed chemical definition of diesel fuels. These distillates may have up to 50 carbon atoms per molecule (EPA would include only those with between 9 and 20 carbon atoms) and widely varying boiling points (between 205° and 495°C, compared to EPA's proposed range of 163° to 357°C). Nor can diesel engines run on any "petroleum distillates" as so broadly defined in the Draft Guidance.

Additionally, to include crude oil in the definition of diesel fuel would unreasonably expand the scope of the term "diesel fuels." Crude oil, of course, is a naturally occurring, complex mixture of hydrocarbons. Diesel fuel must first be refined from crude oil, and crude oil can be refined into dozens of other non-diesel distillates. No diesel engine can run on crude oil.[31]

[30] The SRS has a link to the Toxic Substance Control Act (TSCA) Test Submission database, which does include two synonyms for this substance from 20-year old TSCA submissions that contain the word "diesel." However, at least one of them – "diesel fuel (VDF)" – is a reference to a form of biodiesel and is clearly an error, highlighting the dangers of relying on synonyms.

[31] It also defies logic to impose substantial regulatory burdens on a process that would inject a relatively tiny amount of crude oil into a well for the purposes of *producing* crude oil from the same well.

The inclusion of petroleum distillates/crude oil as a "diesel fuel" has no factual support and would be arbitrary and capricious. EPA should remove this CAS number from the definition.

3. CASRN 68476-31-3

This CAS number refers to No. 4 fuel oil, which is also not diesel fuel. EPA included No. 4 fuel oil because it claims that a "common synonym" is "Diesel Fuel No. 4." EPA provided no source for this synonym and any reliance on colloquial usage is scientifically indefensible. No. 4 fuel oil is a relatively heavy residual oil that is typically used for commercial heating oil or as a bunker fuel; it is not used in diesel engines. Again, the use of unsupported and unscientific colloquial usages for record support is arbitrary and capricious. EPA should remove this material from the definition.

C. The Draft Guidance should limit its definition of diesel fuels to specified materials and eliminate other vague and ambiguous references

API also requests that EPA limit the Draft Guidance's definition of diesel fuel to specific materials and eliminate the use of general references, "associated common synonyms," and the general descriptions of chemical and physical properties outlined in the alternative descriptions posed in the Federal Register notice. 77 Fed. Reg. at 27,453-54. The Draft Guidance states that, when considering whether a hydraulically fractured well should be subject to the UIC regulation, permit writers should determine whether the injectate includes any materials with the six listed CAS numbers "or is referred to by its primary name or any of the associated common synonyms…." Draft Guidance at 9. EPA's Notice also suggests that the Agency's preferred definition of diesel fuels would include substances "that are essentially the same as the diesel fuels description provided in the guidance even if they are not known by the name 'diesel fuels,'" if they have similar chemical or physical properties. 77 Fed. Reg. at 27,454. For the sake of clarity, certainty, and consistency, EPA should abandon both the "associated common synonyms" and the "similar properties" approaches to defining diesel fuels.

First, as noted above, EPA should not be recommending that permit writers rely on "associated common synonyms" derived from colloquial usage. Such colloquial nicknames for chemicals are not scientific and may not be universally known. Thus, a well operator may be subjected to UIC permitting requirements simply because it did not know that a non-diesel fuel material in the injectate is nicknamed "diesel" in some other context, such as kerosene being erroneously referred to as "marine diesel."

Second, subjecting hydraulic fracturing operations to UIC regulations because a permit writer believes that a particular non-diesel material has "similar properties" is too subjective a measure to provide necessary certainty and goes beyond the limited scope of SDWA's textual use of the specific term "diesel fuels." Operators and service companies should not be expected to count the carbon atoms or look up boiling points for materials that are not diesel fuels (or even nicknamed as diesel fuels) for fear that a permit writer may arbitrarily decide on a particular day that some materials are "similar" enough to diesel fuels to warrant a UIC Class II permit.

Third, EPA should not rely on vague and ambiguous terms such as "associated common synonyms" or "similar properties" to determine the bounds of a regulated activity, particularly an activity subject to enforcement actions and penalties for non-compliance. Doing so destroys any clarity achieved by listing specific CAS numbers in the definition of diesel fuels. EPA's own analysis supports this need for clarity. According to the proposed guidance, EPA "found that 'diesel fuels' is not uniformly defined." Draft Guidance at 7. Indeed, the Agency acknowledged that it does not know what could be a diesel fuel under a description that incorporates associated common synonyms or similar properties: where the description of diesel fuels "does not correspond solely to a specific set of CAS Registry Numbers ... EPA is not able to estimate the number of oil and gas wells that hydraulically fracture that would be subject to UIC permitting requirements where EPA is the permitting authority." 77 Fed. Reg. at 27,454. API strongly opposes these alternative approaches, which would create substantial uncertainty. The definition should be limited to specific, readily identifiable materials in order to prevent easily avoidable miscommunication and disputes. Clarity in the definition is of the utmost importance as operators and permitting and enforcement authorities must be able to easily discern whether a specific material meets the definition of "diesel fuel" to avoid unnecessary complications, delays, and disputes. *See also* API's Responses to Questions Posed in 77 Fed. Reg. 27,451 (May 10, 2012), Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels – Draft: Underground Injection Control Program Guidance # 84 (attached to these comments).

Fourth, instead of relying on nicknames or ambiguously "similar properties," EPA should limit the scope of the Draft Guidance to the well-understood diesel fuels that are already being regulated under Title II of the Clean Air Act and that have been specifically formulated for the purpose of operating a diesel engine. Otherwise, the resulting definition could be unreasonably broad, confusing to implement, and improperly expand the reference to "diesel fuels" in the SDWA. Indeed, the Draft Guidance appears not to consider the settled proposition that Congress is presumed to understand existing regulatory definitions when enacting new legislation. This is especially important given the versatility of diesel engines, which could conceivably (but not optimally) operate on many different types of non-commercial fuels, including french fry grease. *See, e.g.*, Jennifer Bogo, Home Brewed: How to Turn Grease Into Biodiesel (for Cheap!), *Popular Mechanics*, Feb. 5, 2009 ("The process is basic chemistry and can be done by any DIYer with a steady supply of restaurant oil, a strong winch, and a willingness to get greasy."). The broad array of marginal or do-it-yourself forms of non-commercial diesel fuels could not be what Congress had in mind in enacting EPAct.

Fifth, providing certainty and defensible limitations on the definition of diesel fuels in this guidance will not deprive the Agency of flexibility. New materials may be introduced into the marketplace that are formulated for the purpose of operating a diesel engine. Therefore, API strongly supports the statement in the Draft Guidance that, if EPA proposes to expand the list of materials that fall within the definition of diesel fuel, the Agency will do so only after providing an opportunity for public notice and comment. Draft Guidance at 10. This notice-and-comment process is extremely important given the obvious disagreements about what could constitute a diesel fuel.

Finally, EPA should make two clarifying statements in order to avoid confusion. First, it should eliminate the term "diesel fuel constituents" used in the Federal Register notice. 77 Fed. Reg. 27,454. This is a separate and distinct phrase that could include hundreds of materials that may be found in diesel fuels and would unnecessarily and unintelligibly broaden the definition of diesel fuel. Regulating "diesel fuel constituents" also goes well beyond the language of the SDWA, which is plainly limited to "diesel fuels." 42 U.S.C. § 300h(d)(1)(B)(ii). If Congress wanted to include diesel fuel "constituents," it could have done so. Second, EPA should make it clear that the use of mineral oil in hydraulic fracturing is not regulated by the Draft Guidance. Mineral oil is commonly used as an additive to hydraulic fracturing fluid because it is inexpensive and poses very little risk of environmental impact. This is exactly the type of non-diesel fuel that could be used as a hook for UIC regulation simply because a permit writer believes that it is similar to diesel fuel, with substantial unintended consequences that would directly contradict EPA's regulatory goals.

IV. If EPA Insists On Regulating Hydraulic Fracturing using Diesel Fuel Under the UIC Program, API Strongly Supports *De Minimis* Thresholds of 1% of Additives and 1% of Base Fluid

API strongly urges the EPA to adopt *de minimis* threshold levels for diesel fuels, below which an operator need not obtain a Class II UIC permit for hydraulic fracturing using diesel fuels. API supports a two part threshold: 1% of chemical additives and 1% of base fluid. A 1% threshold is consistent with the threshold set by the Occupational Safety and Health Administration under the Hazard Communication Rule for identifying the presence of a hazardous chemical in a Material Safety Data Sheet. *See* 29 C.F.R. § 1910.1200(d)(5)(ii).

API believes that EPA should first set a *de minimis* threshold level for diesel fuels at 1% of chemical additive volume (*i.e.*, 1% of the approximately 0.5% of chemical additives that make up a typical hydraulic fracturing fluid mixture, along with 99.5% water and proppant). Without such a *de minimis* threshold, any amount of diesel fuel as an additive, no matter how small, would trigger UIC permitting requirements without any potential risk to USDWs. This would likely subject far more well operators to the UIC permit requirements than EPA anticipates, resulting in unnecessary costs and delays without any environmental benefit.

Similarly, API also supports a *de minimis* threshold of 1% of base fluid volume (*i.e.*, 1% of the remainder of the fluid system that is not chemical additive). This would effectively preclude the use of diesel fuel as a base fluid while ensuring that burdensome permitting requirements would not be imposed if trace amounts of diesel fuel were unintentionally included in a base fluid.

The Draft Guidance does provide that "***EPA expects***" that diesel fuels at a site for "***non-injection purposes ... should not be subject to UIC permitting since they are not injected.***" Draft Guidance at 11 (emphasis in original). In setting a *de minimis* threshold, EPA should clearly confirm that the threshold is measured by the *injection* of diesel fuels, *i.e.*, what is intended to be injected down a well. Diesel fuel that is otherwise used at a project site, or hydraulic fracturing injectate that returns to the surface, could include trace amounts of hydrocarbons that could be considered "diesel fuels" subject to regulation under the Draft Guidance, especially if one of the overly broad definitions of diesel fuels were adopted by EPA. Yet, these hydrocarbons were not added by the operator to the injectate. As EPA correctly stated, the SDWA and its related UIC regulations only governs the *injection* of fluids. *See* 40 C.F.R. § 144.1(g). What the agency considers "injection" logically ought to be consistent with the SDWA's regulatory definitions of "injection well" ("A well into which fluids are being injected") and "injection zone" (a geological formation "receiving fluids through a 'well'"). 40 C.F.R. § 144.3. No reasonable definition of "inject" would encompass the incidental pickup of hydrocarbons during the flowback phase of hydraulic fracturing. Hence, EPA should clarify that the regulation of diesel fuels only applies when an operator intentionally adds diesel fuel to the base fluid or as an additive above a *de minimis* threshold level.

V. If EPA Insists On Regulating Hydraulic Fracturing Operations Using Diesel Fuels Under the Existing UIC Class II Framework, Then API Would Support The Use Of "Temporarily Abandoned" Status

As outlined, API believes that the UIC Class II well program is poorly suited for the regulation of hydraulic fracturing operations. As such, API does not support requiring UIC Class II permits for hydraulic fracturing using diesel fuels as EPA has proposed.

However, if EPA persists in requiring Class II UIC permits, then API would support assigning a well to a "temporarily abandoned" status promptly after fracturing. There is no need for continuing to treat a production well as a UIC injection well so long as it is producing oil or gas or otherwise not being injected with diesel fuels. An operator may wish to "re-fracture" a well using diesel fuels at some point in the future in order to further the production of useful resources from the well field. Thus, a temporary status, as opposed to a final closure process, would provide operators with necessary flexibility.

However, API supports the "temporarily abandoned" option only if EPA first provides certain clarifications to streamline the process to reflect the realities of hydraulic fracturing. First, the "actions and procedures" that must be described to the Regional Administrator in order to avoid plugging and abandonment requirements, *see* 40 C.F.R. § 144.52(a)(6), should be minimal given operators' ongoing compliance with state regulations governing oil and gas well operations. With the injection completed, EPA cannot use its UIC authority as a basis for regulating oil and gas production. Second, the guidance should make clear that EPA waives the need to comply with UIC technical requirements for active injection as long as the well is producing or is otherwise not being injected with diesel fuels, as contemplated by 40 C.F.R. § 144.52(a)(6)(ii). Third, the guidance should provide that EPA considers the monitoring and reporting requirements under state law for active production wells to be adequate for satisfying monitoring and reporting requirements for temporarily abandoned wells. If a well is not being injected with diesel fuels, EPA has no legal basis for exercising jurisdiction over the well.

VI. The Draft Guidance's Statements Regarding EPA Enforcement Authorities and the Effect of the Guidance in Primacy States Should Be Clarified

The Draft Guidance provides mixed messages regarding the role of any final guidance in primacy states and how this guidance would be applied in enforcement actions in those states. It is also unclear how EPA intends to use this guidance when enforcing the UIC requirements in those states where EPA is the permitting authority. For the reasons outlined here, if EPA chooses to finalize this guidance, we urge EPA to make plain the enforcement rules of the road – and to delineate the alleged legal bases for EPA's contentions.

A. EPA should retain its correct general statements regarding primacy if the Draft Guidance is finalized

As noted *supra,* under the SDWA, some 40 states have "primacy" for the permitting of Class II wells, meaning EPA has reviewed and approved those states to implement UIC programs. *E.g.*, 40 C.F.R. §§ 145.1, et seq. (regulations outlining process for states to obtain primacy approval from EPA). In those states, "decisions regarding how a state... implements the UIC Program rests with the state...." Draft Guidance at 33. Thus, as EPA states more than once in its proposal, the "draft guidance does not address State UIC programs." Draft Guidance at 1. Indeed, EPA clearly poses the question – "Does this Guidance Apply to States, Tribes and Territories with Primacy?" – and EPA directly answers "No, this guidance is intended for EPA UIC direct implementation permit writers." Draft Guidance at 32.

API strongly agrees with these statements, and urges EPA to retain them in any final guidance because these statements correctly summarize a significant limit on this proposed guidance:

State UIC programs govern in states with primacy, and EPA cannot unilaterally revise an approved state program merely by issuing interpretative guidelines through informal guidance such as the Draft Guidance. The approved state program remains the law in that state, unless and until the approved program is changed in accordance with the procedures afforded by law. In fact, to make changes, EPA would first have to require states to submit UIC program revisions. *Id.* § 145.32(a), which it may only do in order to obtain compliance with "the requirements of" Part 145, "and of the Safe Drinking Water Act." *Id.* § 145(b)(3). A guidance document is neither a requirement under Part 145 nor a requirement of the SDWA. Whenever EPA would lawfully require revisions to comply with applicable law, such revisions would be "substantial," and thus EPA would have to issue a public notice and provide the opportunity for comment before it could decide whether to approve such revisions. *Id.* § 145.32(b)(2). Until EPA takes those steps, the Draft Guidance cannot be a "requirement of an applicable underground injection control program" under the SDWA. SDWA § 1423(b); 42 U.S.C. § 300h-2(b).

However, in the course of discussing whether the Draft Guidance applies to states with primacy, EPA volunteers its unsubstantiated legal opinion that states have the power to prohibit the use of diesel fuels in hydraulic fracturing fluids. API submits that this detour has absolutely no place in this proposed guidance, as EPA has no specialized expertise in the legalities of state statutes banning a particular activity that is otherwise entirely lawful. Nor has EPA made any findings or done any analysis that could even conceivably begin to justify this blanket assertion. Any final guidance must exclude this comment.

B. Operators in primacy states are not subject to EPA enforcement actions under Section 1423 for using diesel fuels in hydraulic fracturing without a Class II UIC permit

At the same time that EPA very clearly states that the Draft Guidance does not apply in primacy states, EPA states at least twice that operators "in primacy states" could be subject to enforcement under Section 1423 of the SDWA. Draft Guidance at 6 and 33 ("In primacy states, the state implements the UIC Program while EPA retains an oversight role and may commence enforcement actions under specific conditions if an owner or operator violates a UIC requirement (SDWA 1423) or endangers a USDW (SDWA Section 1431)."). The implication of these references in this proposed guidance – including in the section discussing whether the guidance would apply to states with primacy – is that perhaps EPA contends the requirements of a final guidance would be enforceable in states with primacy as part of EPA's oversight role. If that is EPA's asserted position, then we ask that EPA say so explicitly and provide the legal authority for its position. If not, then it is equally important for EPA to explicitly disclaim any intention to apply any final guidance in enforcement actions in primacy states. Having raised the specter of enforcement, the ambiguity that EPA would create by leaving this question unanswered would pose very significant uncertainty among regulated entities and potentially spawn needless and costly litigation.

To the extent that EPA would consider contending that it could enforce the parameters of a final guidance in primacy states under Section 1423, we disagree. Section 1423 does provide EPA with enforcement authority in primacy states. However, as EPA must be aware, the authority is limited by statute. The SDWA only authorizes EPA to pursue civil and criminal enforcement actions against anyone not in "compliance with any requirement of *an applicable underground injection program*." SDWA § 1423(b); 42 U.S.C. § 300h-2(b) (emphasis added). However, "an applicable underground injection program" is a defined term under the statute. Specifically, SDWA 1422(d) provides:

> (d) "Applicable underground injection control program" defined
>
> For purposes of this subchapter, the term "applicable underground injection control program" with respect to a State means the program (or most recent amendment thereof) (1) *which has been adopted by the State and which has been approved under subsection (b) of this section,* or (2) which has been prescribed by the Administrator under subsection (c) of this section.

42 U.S.C. § 300h-1(d) (emphasis added). The approval referenced in SDWA § 1422(d) is the approval of the state's program. Subsection (b) provides that once approved, a state "*shall* have primary enforcement responsibility for underground water sources **until** *such time as the Administrator determines, by rule,* that such State no longer meets the requirements ..." 42 U.S.C. § 300h-1(b)(3) (emphasis added). Part 145 sets out a procedure for the Administrator to make this determination. Under 40 C.F.R. § 145.33(a), the Administrator may only withdraw State program approval when that State's program "no longer complies with the requirements of this part...." As noted above, the Guidance Document would not be a "requirement" of Part 145. Even if the Administrator could make such a finding, the State is entitled to first take corrective action. *Id.* As such, so long as a State's program remains in effect, EPA may only bring an enforcement action under Section 1423 in a primacy state for a violation of an "applicable underground injection program" which only refers to the program which has been adopted and approved by the state. Because any final guidance would not be part of that program, EPA cannot seek to enforce the guidance in any state with primacy.

C. Congress has not authorized EPA or third parties to initiate enforcement actions with respect to informal guidance documents under Section 1423 in primacy states

EPA should also provide clarification of EPA's position regarding its ability to pursue an enforcement action based on the interpretations in this informal guidance document in states that do not have primacy, such as Pennsylvania. API submits that Congress has not authorized EPA to base an enforcement action under Section 1423 on an informal guidance document such as the Draft Guidance.

Specifically, on its face, the SDWA framework provides that an "applicable program" is only those aspects put in place by regulation, and EPA may only enforce against a person covered by the SDWA for non-compliance with an applicable program. The statutory language is clear: As noted, EPA is limited to pursuing enforcement for failure to comply with an "applicable underground injection program." SDWA § 1423(b); 42 U.S.C. § 300h-2(b). In states without primacy, the applicable program is one "which has been prescribed by the Administrator under subsection (c) of this section." SDWA § 1422(d)(2) 42 U.S.C. § 300h-1(d)(2) (emphasis added). Subsection (c) in turn provides that a "program prescribed by the Administrator" is one that EPA "*shall by regulation* ... prescribe (and may from time to time *by regulation revise*)" for a state that meets the minimum requirements of Section 1421 of the SDWA. SDWA § 1422(c); 42 U.S.C. § 300h-1(c) (emphasis added). Thus, an "applicable program" that EPA can enforce when it is the permitting authority is a program that EPA establishes "by regulation" and revises "by regulation." Moreover, before "promulgating any regulation" to implement such a program, EPA "*shall* provide opportunity for public hearing respecting such regulation." SDWA § 1422(c); 42 U.S.C. § 300h-1(c) (emphasis added). This informal guidance thus would not qualify under the statute to be part of the applicable program which can be enforced against an operator in a non-primacy state.

Therefore, EPA should be very clear in its Guidance, if finalized, that it may not enforce – nor may any other third party bring an action to enforce – the provisions of the Guidance with respect to operators in States with primacy, because the Guidance is not a part of the program requirements under the SDWA or 40 CFR, Part 145. If the Guidance Document's enforceability in primacy states remains ambiguous, it will constitute an invitation for citizen suits under SDWA § 1449, 42 U.S.C. § 300J-8. This section allows "any person" to commence a civil action against anyone "who is alleged to be in violation of any requirement prescribed by or under" the SDWA. *Id.* § 300J-8(a)(1). If EPA fails to make it clear that the statements within the Guidance Document are not "requirement[s] prescribed by or under" the SDWA, then operators in primacy states could face a campaign of citizen suits attempting to enforce the Guidance Document's terms in those states. This would not only needlessly subject operators to expensive and harassing litigation, but could lead to an unworkable patchwork of inconsistent federal district court interpretations of the Guidance Document's terms and applicability. Further, primacy states could also be subject to unnecessary citizen suits demanding that those states revise their own EPA-approved UIC programs to comply with the terms of the Guidance Document. Although API believes such suits would be legally flawed, there remains a risk that courts will reach inconsistent holdings. By making clear that the Guidance Document is not enforceable, EPA can avoid wasteful litigation and the potential for legal uncertainty.

D. EPA cannot enforce the Guidance retroactively

Even assuming EPA would attempt to rely on the Guidance Document for an enforcement action, EPA should clarify the extent to which EPA contends this guidance applies retroactively and would or could be used to subject operators to retroactive liability under the UIC program.

EPA states that its "goal is to explain *existing* requirements" and that the draft "describes *existing* legal requirements under the UIC Class II regulations." Draft Guidance at 1, 2 (emphasis added). Further, at a recent Congressional hearing, Acting Assistant Administrator Nancy Stoner testified the Draft Guidance "is intended to provide the public with a clear statement of EPA's present understanding of existing statutory and regulatory requirements for diesel fuels used in hydraulic fracturing wells ...." *Rhetoric vs. Reality: Assessing the Impact of New Federal Red Tape on Hydraulic Fracturing and American Energy Independence: Hearing Before the Subcomm. On Techn., Information Policy, Intergovernmental Relations and Procurement Reform of the H. Comm. on Oversight and Gov't Reform*, 112th Cong. at 3 (May 31, 2012) (statement of Ms. Stoner); *id.* at 5 (draft guidance "simply reflects the EPA's present understanding of existing requirements of SDWA and its implementing regulations....").

In general, U.S. jurisprudence does not favor retroactivity. Indeed, under the federal 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...." 5 U.S.C. § 551(4) (emphasis added). 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.[32] Moreover, Congress typically does not provide administrative agencies authority to create rules that have retroactive effect, and thus rules will have only prospective effect, unless the language of the governing statute expressly provides for retroactive rulemaking authority.[33]

Nonetheless, one possible implication of the statements by EPA and its officials is that EPA contends operators have been required to obtain a Class II UIC permit if they were using "diesel fuels" (which have never been defined under the SDWA) in the course of hydraulic fracturing activities since at least the passage of EPAct, and possibly before that time. However, EPA's interpretation that Class II UIC regulations apply to hydraulic fracturing operations that use diesel fuels was announced only recently on its website, and EPA agreed to withdraw those website statements in exchange for issuing the Draft Guidance,[34] which constitutes the first proposed, formal interpretation by the Agency. In view of these facts and the governing case law, EPA should not apply any final guidance retroactively.

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

[33] *Id.*

[34] *See Independent Petroleum Assoc. of Amer. v. EPA*, No. 10-1233, Doc # 1360150 (D.C. Cir.) (filed Feb. 23, 2012).

Further, Ms. Stoner appeared to state under oath before the Congress that EPA does not intend to institute enforcement actions against well owners and operators who have not obtained Class II permits before the Draft Guidance.[35] Yet, however inequitable it would be to apply any guidance retroactively, and despite Ms. Stoner's apparent clarification of EPA's position on this issue, her statement may not bind a future federal prosecutor or third parties who may try to enforce the guidance. To avoid this uncertainty, and as matter of fairness, we urge EPA to emphasize in any final guidance that it is announcing a new interpretation of the referenced provisions, including the meaning of diesel fuels under EPAct and the UIC regulations. We request that EPA further explicitly state that any liability under the SDWA for failing to obtain a Class II UIC permit is prospective only from the date that the guidance is finalized.

VII. EPA Should Remove the Requirement to Disclose the Complete Chemical and Physical Characteristics of the Injectate Before the Injection, But In All Events Should Include Specific Protections For Confidential Business Information

The Draft Guidance provides that the "complete chemical and physical characteristics" of hydraulic fracturing fluid would have to be disclosed as part of the permit application process, apparently without protection for legitimate trade secrets. Draft Guidance at 10. As EPA is no doubt aware, the disclosure of constituents of hydraulic fracturing fluids is currently being addressed effectively at the state level, and by voluntary initiatives overseen by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission. We urge EPA to revise its approach to this issue.

As outlined in previous public statements, API strongly supports the use of FracFocus as an appropriate mechanism for disclosure to the public of hydraulic fracturing fluids. We question why EPA believes that it should require disclosure of chemicals to the Agency, as opposed to FracFocus, and why this disclosure should be made during the permit application process.

In addition, while API has various concerns with proposed Bureau of Land Management ("BLM") regulations for hydraulic fracturing on federal and tribal land, *see* 77 Fed. Reg. 27,691 (May 11, 2012), we observe that EPA's proposed disclosure requirements directly conflict with those now being proposed by BLM. First, BLM has proposed to require operators to report chemicals used in hydraulic fracturing fluid for posting on FracFocus, and only after fracturing is complete. *Id.* at 27,692. We also understand that that White House Deputy Assistant for Energy and Climate Change, Heather Zichal, has endorsed FracFocus as "an important tool that provides

[35] Rhetoric vs. Reality: Assessing the Impact of New Federal Red Tape on Hydraulic Fracturing and American Energy Independence: Hearing Before the Subcomm. On Techn., Information Policy, Intergovernmental Relations and Procurement Reform of the H. Comm. on Oversight and Gov't Reform, 112th Cong. at 91 (2012) (MR LANKFORD. "Will this be retroactive permitting when the new definition is done? MS. STONER. The permitting requirements of the statute and the regulations apply now but the diesel fuel definition is a proposed interpretation of those and *would of course not be* [retroactive]." (emphasis added).).

transparency to the American people."[36] Ms. Zichal has stated there was "no need to create a new means of disclosure at the federal level" and that the White House is "not looking to duplicate or create another platform that provides a bunch of uncertainty and creates more questions about transparency."[37] EPA should explain why it believes that FracFocus is inadequate for disseminating information to the public despite strong endorsements by BLM and the White House.

API also supports allowing each state to develop the requirements that strike the right balance among the timing, scope, and nature of the disclosures that are right for that particular state. Any EPA guidance should properly defer to the framework set in those states in which EPA implements a UIC program, rather impose a federal rule. Indeed, like other states that have significant oil and gas development activity, Pennsylvania has developed its own balanced approach to disclosure of the constituents of hydraulic fracturing fluids. Pennsylvania has chosen to strike a balance between protecting confidential information, while allowing disclosure to health professionals whenever this disclosure may become necessary. *See generally* 58 Pa. Cons. Stat. § 3222.1.

Thus, while API supports appropriate disclosure requirements, API opposes EPA's proposed federalization of the disclosure requirement under the guise of regulating the injection of diesel fuels. As outlined above, Congress' exclusion of diesel fuels from the exemption of hydraulic fracturing from UIC requirements is a narrow exclusion. *See* SDWA § 1421(d)(1)(B)(ii) ("the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations" are excluded from the term "underground injection"). That narrow provision surely does not open the door to wholesale regulation and assessment of all materials in hydraulic fracturing fluids. Draft Guidance at 10. Rather, contrary to EPA's suggestion, here Congress was in fact focused only on a single material, diesel fuels. Had Congress been concerned about the entire "mixture," as EPA posits, it would have been illogical for the Congress to have otherwise excluded hydraulic fracturing from UIC regulation. EPA should not assume that the reference to diesel fuels swallows up the entire exemption and grants EPA unlimited authority to regulate hydraulic fracturing fluids. Instead, a straightforward reading of the plain language of the SDWA is appropriate here.

EPA's guidance also presents significant practical concerns that counsel against the broad disclosure EPA proposes in the guidance. As an example, by requiring disclosure of the "complete" mixture with the permit application, EPA's proposal could be understood to require the permit to outline with exacting specificity all of the constituents of the fluids, and that the

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[36] Mike Soraghan, White House official backs FracFocus as preferred disclosure method, E&E News (June 21, 2012).

[37] *Id.*

operations would otherwise be restricted by the mix of fluids disclosed with the permit application. However, it is frequently the case that operators and service companies are required to make adjustments to hydraulic fracturing fluid constituents in the field, sometimes only hours before a fracturing job commences, in order to incorporate new information gained in the field regarding geology, down hole conditions, etc. It would be extremely impractical to require EPA's pre-approval for these kinds of decisions, as the delays inherent in obtaining agency review would effectively grind oil and gas operations to a halt. If EPA does not intend to foreclose an operator from adjusting its fracturing fluids as necessary, it should expressly clarify this point in any final guidance.[38]

Regardless, if EPA insists on superseding state disclosure rules, then EPA should propose a process to address the confidential business information claims of the industry, including for operators, service companies, and suppliers. BLM's proposed hydraulic fracturing regulations does reference a process to protect trade secrets, although it is our view that it can be improved upon. 77 Fed. Reg. at 27,700. EPA should also provide interested parties the opportunity to comment on that process before EPA finalizes any guidance. Without robust trade secret protection, the Draft Guidance has the potential to discourage investment and stifle innovation, including investment and innovation that would result in the development of technologies to reduce the environmental impact of hydraulic fracturing.

VIII. The Draft Guidance Should Not Be Interpreted to Require a Class II UIC Permit For Diesel Fuels Used For Freeze Protection or Pressure Testing Pipelines Displaced Down Hole During Hydraulic Fracturing

API is concerned that the Draft Guidance, and specifically the broad discretion that it affords individual permit writers, would allow the EPA to require Class II UIC permits if the permit writer determines that diesel fuel used for purposes of freeze protection or pressure testing pipelines in Arctic climates could be displaced down hole during hydraulic fracturing treatments. API recommends that the EPA include a clarification that no Class II UIC permit is required for diesel fuel used for freeze protection and pressure testing of pipelines.

In Arctic climates, diesel fuel may be used to protect wellbores and surface pipelines from integrity problems that could arise if fluids in the wells or pipelines were to freeze. Diesel fuels present in freeze-protected wells and pipelines could be displaced by other fluids, or commingled with them, and injected into the formation during the course of a hydraulic fracturing treatment. Since the diesel fuel is displaced into a hydrocarbon bearing formation, this diesel fuel use presents no additional risk to the public.

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[38] The Bureau of Land Management recognized the need for this flexibility in its recent proposal. 77 Fed. Reg. at 27,691, 27,698 (proposing to require disclosure *after* hydraulic fracturing is completed).

We do not believe that Congress intended for the EPA to apply the UIC program to diesel fuels used for freeze protection purposes or pressure testing surface pipelines in Arctic climates, especially given that this application of diesel fuel is employed specifically to preserve well integrity. Such an interpretation would necessitate a lengthy and costly permitting and approvals process for a proven and safe use of diesel fuel (indeed, a use of diesel fuel that is essential for safe operations). API requests that the guidance be revised to clarify that the presence of diesel fuels for freeze protection in wells and surface pressure testing lines does not require UIC permitting if that well is also to be hydraulically fractured.

IX. If Finalized, the Guidance Would Operate as a Legislative Rule and Would Be Subject to Judicial Review Under the APA

EPA states in its proposal that the Draft Guidance "will not impose any new requirements," 77 Fed. Reg. at 27,451, and only makes "recommendations for permitting hydraulic fracturing injection wells where diesel fuels are used." *Id.* at 27,452. *See also* Draft Guidance at 3 ("this document will not impose legally binding requirements and will not be implemented as binding in practice; nor will it impose any obligations on private parties"). If this is EPA's position, it should make absolutely clear in the Federal Register that any and all legal challenges to any aspect of any final guidance may be raised in a future enforcement action.

Otherwise, as a practical matter, the framing of the guidance and statements within it suggest that it is effectively a "rule" and as such should be subject to judicial review under the APA as it is "an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy...." 5 U.S.C. §551(4). This conclusion is only buttressed by the Draft Guidance's assertion that well owners and operators that do not receive UIC Class II permits when they use diesel fuels in hydraulic fracturing fluid "may be subject to enforcement action under 1423 of the SDWA." Draft Guidance at 6.

This surely suggests that EPA believes final guidance would effectively act like a regulation by the imposition of binding obligations on well operators that have the force of law. *Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000). A binding effect is "the fundamental characteristic of a regulation, *i.e.*, that it has the force of law." *Molycorp, Inc. v. U.S. EPA*, 197 F.3d 543, 545 (D.C. Cir. 1999). If finalized, the guidance could be understood to dictate which parties would require a UIC permit, what information must be submitted to obtain that permit, and what the terms of that permit would be. These certainly appear to be the type of binding legal obligations on well owners and operators that have the indicia of a legislative rulemaking. *See General Elec. Co. v. EPA*, 290 F.3d 377, 382-85 (D.C. Cir. 2002) (guidance document dictating permit application requirements was a legislative rulemaking); *Nat'l Ass'n of Home Builders v. Norton*, 415 F.3d 8, 15 (D.C. Cir. 2005) ("ostensibly non-binding agency proclamation" had a "practical effect" of regulating third parties). Given the binding instructions for EPA regional permit writers to apply the Class II program to hydraulic fracturing operations using diesel fuels, the Draft Guidance, if finalized, could not be credibly characterized as a non-binding "policy statement" that lacks a "present-day binding effect," does not "impose any rights and obligations" on others, or leaves "the agency and its decision makers free to exercise discretion." *McLouth Steel Prods. Corp. v. Thomas*, 838 F.2d 1317, 1321 (D.C. Cir. 1988).

As the U.S. District Court for the District of Columbia recently reaffirmed, pleas that a guidance document does not establish new obligations, change legal norms, or purport to provide EPA with new authorities are unavailing where it is intended to guide permit writing staff. *Nat'l Mining Ass'n v. Jackson*, 10-cv-01220 (D.D.C. July 31, 2012) (Slip Op.), at 12-15. Here, the Draft Guidance explicitly and repeatedly instructs EPA Regional offices to require UIC permits whenever diesel fuel is used in hydraulic fracturing fluids. *See, e.g.*, Draft Guidance at 1. As the district court in *National Mining Association* held, Slip Op. at 33, such directions to permit writers require the EPA to go through a formal notice and comment rulemaking, instead of seeking to impose requirements through informal guidance.

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For the foregoing reasons, API strongly urges EPA to withdraw the Draft Guidance. If EPA chooses to continue down this ill-advised path, then it must, at a minimum, initiate a formal rulemaking to regulate the use of diesel fuels in hydraulic fracturing. Should you have any questions on these comments, please feel free to contact me at (202) 682-8273 or by email at militoe@api.org.

Sincerely,

Erik Milito, Group Director

Upstream and Industry Operations

Enclosures