

Senate Committee on Energy and Natural Resources
Full Committee Forum on Environmental Impacts of Shale Gas Development and Best Practices
May 23rd, 2013

Environmental Defense Fund Responses to Questions for the Record from Chairman Wyden

Disclosure

1. Should the public have information on the chemicals being used before the fracking takes place? I understand that the chemicals necessary may need to be adjusted during the fracking operation, but couldn't companies provide their best information on what they plan to use, and then modify the report after the fact?

EDF Response: EDF believes that chemical disclosure of hydraulic fracturing fluids is one of several important steps in providing the public with the information they need to fairly assess the impact of unconventional oil and gas development in their communities. Chemical information provided in advance of production can build public trust by allowing communities, particularly landowners, to understand and evaluate the risks of chemical use *before* chemicals are introduced into the environment. One mechanism for achieving this objective is requiring service companies to submit annually a master list of all chemicals they anticipate using in a state, and to true up this list annually based on what was actually used in that state. These lists would be submitted to the state and be available and searchable by the public online.

FracFocus

1. I have several questions about FracFocus, but let me first say that I think the effort that has been put together to date is a constructive one. I know that many states and the BLM are relying on FracFocus as a vehicle for public disclosure. Because it plays such a central role in the fracking discussion, I would like to explore ways of further supporting it and improving it. One of the concerns I have heard about FracFocus is that there is no oversight to make sure that the information that is reported by the companies is correct. Is it possible to put in place a system for checking the accuracy of what is reported? I think this is important if the public is relying on the information.

EDF Response: FracFocus' primary value is in support of the implementation of chemical disclosure mandated by law or regulation, with accountability for the accuracy of the data reported derived from such law or regulation. Currently 20 states require some manner of chemical disclosure; 12 of these states specify FracFocus as the means of compliance, and in so doing, these states have the obligation to police the quality of the data reported pursuant to their requirements. Nine additional states are currently considering using FracFocus as a tool to facilitate chemical disclosure in their states. Given the many thousands of producers and services companies that comprise the oil and gas industry, the fact that many of these players are unknown to the public, and the virtual certainty that not all will willingly participate in a solely voluntarily effort to fully inform the public, it is essential that all states require chemical disclosure and hold companies accountable by law or regulation for prompt and proper reporting of data. Further, we support BLM's use of FracFocus as a vehicle for facilitating chemical disclosure for unconventional oil and gas production on federal lands, assuming FracFocus can satisfy federal record reporting and retention requirements, which would be backed by the full weight of federal law on false certification.

2. False reporting: Under Federal law, making a false certification to the Federal government is a criminal offense. Are there any legal repercussions resulting from false certifications on the FracFocus site?

EDF Response: We are unaware of any legally binding repercussions for reporting false data on FracFocus apart from whatever requirements pertain under state law or regulation when reporting is required by a state. EDF believes there is no substitute for mandatory reporting of chemical information, and we believe that FracFocus' primary value is in supporting these requirements.

3. Identity of Chemicals: I have also heard complaints that it is difficult to determine what chemicals are used in fracking, even when disclosure is made on FracFocus. I am told that this is the case because there is no standardized way of reporting the chemicals. Would it make sense to require the use of Chemical Abstract Service (CAS) numbers for the chemicals, as the proposed BLM regulation does?

EDF Response: FracFocus requires the use of Chemical Abstract Service (CAS) numbers, as do most states that have chemical disclosure requirements. EDF believes the use of CAS numbers is essential.

That said, the current situation regarding the use of CAS numbers and reporting generally must be improved. In a blog post on EDF's Energy Exchange, dated December 12, 2012, Scott Anderson, EDF's Director of Natural Gas Policy, documented a significant error rate reporting by CAS numbers to FracFocus under Texas' recently enacted chemical disclosure regulations. The post further notes some of the other early challenges in implementing state disclosure requirements generally. (See a Red Flag on Disclosure, <http://blogs.edf.org/energyexchange/2012/12/12/a-red-flag-on-disclosure-of-hydraulic-fracturing-chemicals/>). Disclosure requirements are relatively new, and full and accurate compliance with them is far from routine. While we expect the quality of reporting will improve with time as companies become more familiar with what is required of them, improvement is far from assured, and it will not happen of its own accord. Compliance with state disclosure requirements rests first and foremost with the state agency charged with their implementation and enforcement. FracFocus is a tool to facilitate compliance, but late filings and missing or inaccurate data, is first and foremost a matter for state enforcement in those states with mandatory disclosure requirements, and – it bears repeating – we believe all states with unconventional oil and gas development should have mandatory disclosure requirements.

We respectfully suggest that if the Committee's concern is whether landowners and the public have adequate and timely access to information about chemicals being used in their communities to facilitate hydraulic fracturing – as we believe it is – then the Committee's focus on the efficacy of FracFocus as a tool to facilitate that disclosure is secondary to the major issues that the Committee should consider. The critical questions the Committee should be asking are how many states mandatory disclosure laws, what is their scope, what is the record of compliance with them to date, how effective are they in providing the public with accurate and timely information? With these questions asked and answered, it may become clearer what may be done to improve FracFocus as one tool – and we believe an important one – for facilitating compliance with state disclosure requirements, and whether any federal action is warranted to fill in gaps left by state inattention to this issue.

4. Funding: Who funds FracFocus currently? How much does it cost to maintain the site annually?

EDF Response: We do not know the total sources or amounts of funding for FracFocus. EDF has provided the Groundwater Protection Council with a \$100,000 grant for the purpose of integrating FracFocus with the Risk Base Data Management System that is used by most state enforcement agencies. We do not know what it costs to maintain the FracFocus site annually.

5. Data Retention: How long is the data retained on the FracFocus site?

EDF Response: FracFocus has not published their data retention policies and should do so. From our perspective, it is essential that data reported to FracFocus be preserved permanently. At a minimum, where FracFocus is used in support of state disclosure requirements, FracFocus and states using the site must take steps to ensure that data submitted to FracFocus complies with state reporting and record retention requirements.

6. Aggregation of Data: What could make FracFocus more “user friendly”? Is there a way to modify the site to facilitate the aggregation of data and further analysis of what chemicals are used where?

EDF Response: EDF believes that any user of FracFocus should have the ability to search and aggregate data. Improvements being made to FracFocus will allow state regulators to do this, including the ability to link to the Risk-Based Management Systems (RMBS) that most states now use to prioritize review and enforcement. EDF supports these improvements and will continue to urge the Groundwater Protection Council to enable the general public to have the ability to search and aggregate data. We believe this is both possible and essential. To the extent financial resources are an obstacle to getting this done, we respectfully urge the Committee to make this a priority for Department of Energy support in the coming fiscal year.

Flaring

1. What would be the best way to encourage a phase out of flaring of natural gas? I understand there will always be a need for some flaring for safety reasons or otherwise, but what would be a reasonable timeline to achieve a goal of minimal flaring across the country?

EDF Response: Flaring is most common in situations where a new gas lease is being developed in an area where gas development activity has been sparse or where natural gas is produced as a by-product of oil development. In both cases, there is a lack of gathering infrastructure to take the natural gas that is being produced, and so the natural gas must either be vented or flared. Flaring, although preferable to venting, can be a significant source of air pollution and is a needless waste of a domestic energy resource.

Last year, the U.S. Environmental Protection Agency (EPA) took an important step toward addressing the problem of venting and flaring of natural gas by adopting revisions to the federal New Source Performance Standards for oil and gas and the National Emission Standards for Hazardous Air Pollutants. Among other things, these revised standards require “reduced emission completions” at new gas wells, a process which captures and recycles methane into gas gathering lines for sale rather than venting or flaring this gas. EPA projects these standards will reduce methane emissions by 1 million tons per year, VOC emissions by 190,000 – 290,000 tons per year, and air toxics by 12,000 – 20,000 tons per year, all while saving producers an estimated \$11-19 million in captured gas that would otherwise be wasted. These rules were based on requirements pioneered by Colorado and Wyoming, and their development illustrates the important role that states can play in advancing proper and necessary regulation of the oil and gas industry.

Unfortunately, EPA's efforts to protect public health and the environment are incomplete. More must be done to reduce air emissions from the oil and gas sector. For example, EPA's recently adopted regulations omit "co-producing wells" – those wells in North Dakota's Bakken field and elsewhere that are drilled to produce oil but which may produce significant amounts of natural gas as well. These wells can emit significant amounts of pollution, and because of shifting market fundamentals, drilling in these areas is swiftly expanding. To fully minimize flaring, EPA must act to amend their regulations to extend their reduced emission completion requirements to all types of wells, not just those specifically defined as "gas wells."

2. Flaring rates in Texas and Alaska are close to zero. What is the law in Texas in regard to flaring? What makes the Bakken so different that flaring is so much more prevalent?

EDF Response: According to the Texas Railroad Commission, flaring is on the rise in Texas (see <https://www.rrc.state.tx.us/about/faqs/flaringfaq.php#1>). As in North Dakota, oil development is racing ahead of gathering infrastructure to accommodate the natural gas co-produced with the oil. However, in contrast to North Dakota, where flaring is allowed for up to one year, with the ability to apply for an extension beyond that, Texas allows producers to flare for only 10 days, with 45 day extensions possible up to a total of 180 days. Generally speaking, the volumes of gas flared in Texas are smaller than in North Dakota because Texas benefits from having much gathering infrastructure already in place, and the state affords pipeline developers the power of eminent domain, which speeds the construction of new infrastructure. North Dakota has neither of these attributes. We are less familiar with the situation in Alaska but our understanding is that much of the oil and gas development there is conventional development where gas is re-injected into the play for the purpose of re-pressuring the wells.

3. What could be done at the federal level to help reduce the amount of natural gas being flared in the Bakken and elsewhere? If the regulatory or incentive structure isn't changed, will the amount of flared gas drop on its own, and if so how quickly?

EDF Response: As stated in answer to the first question on flaring, the single most important thing the federal government can do to reduce flaring is for EPA to proceed with expanding the scope of its air quality standards for natural gas production to cover co-producing wells.

4. Alaska addresses flaring with financial penalties. North Dakota has taken a different approach by providing incentives. What about combining these two approaches to have a combination of financial carrots and sticks to reduce or eliminate flaring?

EDF Response: EDF supports the use of incentives to encourage the development of the necessary infrastructure to facilitate green completions, including incentives to land owners to grant the right of ways for necessary gathering infrastructure. We are aware that the lower house of the North Dakota legislature acted to narrow the allowed time for flaring at a new well from one year to six months. We believe this would have helped reduce the total amount of flaring in North Dakota, and regret that this common sense reform did not survive the legislature's conference committee. The incentives that North Dakota has enacted, are a small step in the right direction, however. As a general matter, flaring should be allowed only for limited time under limited circumstances, and only on demonstration that no technologically viable alternative exists. Even then, producers should be required to pay royalties and taxes on the gas being flared. Producers may choose to waste the gas that they produce, but landowners and taxpayers should not be expected to subsidize that choice.

Resolve.

At the Chairman's request, please feel free to submit any additional comments on the environmental impacts of shale gas development and best practices to the committee.

EDF Response: Over two years ago, President Obama directed then Secretary of Energy Steven Chu to convene a special subcommittee of his Energy Advisory Board to examine the many environmental issues associated with shale gas development. The subcommittee, chaired by former CIA Director John Deutch produced many recommendations aimed at reducing the environmental and public health risks associated with shale gas development. EDF President Fred Krupp served on this subcommittee, and we believe the report and its recommendations remain an important, if under-utilized resource. We respectfully suggest it would be appropriate for the Committee to look into the Administration's progress in acting on these recommendations, and consider what the Committee may do to advance them. The Committee's work may be found at <http://www.shalegas.energy.gov/>. The interim 90-day report is of particular value.

Additionally, the Bureau of Land Management has recently proposed a set of regulations for addressing various aspects of unconventional oil and gas development on federal lands. We believe these rules can be an opportunity to set a high bar for what good regulation of unconventional oil and gas development can look like. While the proposed rule is an improvement over existing requirements, the proposal falls far short of what is required. On May 17, 2013, Matt Watson, EDF's Director of State Programs, provided a comprehensive critique of the rule and what is required to improve it in a blog entitled "Is BLM Phoning It In?" We commend his summary to your attention, which can be found at: <http://blogs.edf.org/energyexchange/2013/05/17/is-blm-phoning-it-in/>.

Finally, as we noted elsewhere in these comments, public disclosure of the chemicals used in the process of hydraulic fracturing is only of several measures necessary to increase transparency, and with it, earn and maintain public trust. EDF believes that chemical disclosure requirements at either the state or federal level should extend beyond the chemicals used in hydraulic fracturing to *all* of the chemicals used on a production site, such as those used in drilling muds. "Spud to plug" disclosure is necessary to give landowners and communities the information they need to fairly assess the totality of public health and environmental risk from chemical use at a production site. Likewise, EDF believes that more needs to be done by way of air emission monitoring, baseline water quality testing, and assaying of waste water produced. All of these efforts are necessary to give the public a clearer picture of what is actually occurring at production sites, and create an objective basis on which to measure industry assertions that production is uniformly safe and fully protective of public health and the environment.