



June 3, 2020

VIA E-MAIL AND E-FILING

The Honorable Andrew Wheeler, Administrator
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Environmental Protection Agency's Oil and Natural Gas Sector: Emission
Standards for New, Reconstructed, and Modified Sources Review at 84 Federal
Register 50,244 (September 24, 2019) Docket ID No. EPA-HQ-OAR-2017-0757
And

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and
Modified Sources Reconsideration (October 29, 2018)
Docket ID No. EPA-HQ-OAR-2017-0483

Dear Administrator Wheeler:

The following Comments are submitted on the above-referenced proposed rule (Proposed Policy Rulemaking) on behalf of the following national and state trade associations: the Independent Petroleum Association of America (IPAA). IPAA has participated individually or through the Independent Producers in most, if not all, of the rulemakings and associated litigation since the Environmental Protection Agency (EPA or Agency) proposed to revise the New Source Performance Standards (NSPS) for the Oil and Natural Gas Sector in August 2011. 76 Fed. Reg. 52,738 (Aug. 23, 2011).¹

IPAA represents the thousands of independent oil and natural gas producers and service companies across the United States. America's independent producers develop 91 percent of the nation's oil and natural gas wells. These companies account for 83 percent of America's oil production, 90 percent of its natural gas and natural gas liquids (NGL) production, and support over 4.5 million American jobs. A recent analysis has shown that independent producers are investing 150 percent of their U.S. cash flow back into American oil and natural gas development to enhance their already aggressive efforts to find and produce more energy.

These comments are filed in response to supplemental comments filed on April 13, 2020, by the Environmental Defense Fund (EDF) for itself and several other professional environmental issues advocacy organizations (EDF 2020 Comments). The EDF 2020 Comments address issues that arise in both the EPA 2018 Reconsideration proposal (EPA-HQ-OAR-2017-0483) and the

¹ IPAA incorporates by reference the Independent Producer Comments on the previous rulemakings associated with 40 C.F.R. Part 60, Subpart OOOO and Subpart OOOOa, including but not limited to the following documents: EPAHQ-OAR-2010-0505-4216, EPA-HQ-OAR-2010-0505-4626, EPA-HQ-OAR-2010-0505-4752, EPA-HQ-OAR-2010-0505-4767, EPA-HQ-OAR-2010-0505-7001, EPA-HQ-OAR-2010-0505-7685, EPA-HQ-OAR-2010-0505-12337, and EPA-HQ-OAR-2010-0505-12454.

EPA 2019 Proposed Policy rulemaking (EPA-HQ-OAR-2017-0757). Within the EDF 2020 Comments, there are specific issues related to comments provided by the IPAA. As the IPAA has shown in past comments, the EDF 2020 Comments continue to distort analyses of methane emissions as they seek to cripple American oil and natural gas production through the use of federal regulations that are not supported factually or legally justified.

Review of Major Issues

To put these supplemental comments in context, it is important to review the larger framework of debate and background on these issues.

1. Far too many accusations have been made regarding the scope and targets of the Subpart OOOO and Subpart OOOOa regulations. Industry does not dispute that it is appropriate to effectively regulate its emissions. For the production component of the oil and natural gas industry, volatile organic compounds (VOC) and methane are emitted together and the technology that controls either will control both. This is not disputed by EDF. For new sources, it makes no difference whether regulations apply to VOC or methane.
2. For most of the regulatory requirements under Subparts OOOO and OOOOa, the basic regulatory choices in the New Source Performance Standards (NSPS) meet the definition in the Clean Air Act for a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction (BSER) which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated. Many of these technologies – reduced emissions completions, low bleed pneumatic controllers, storage tank vapor recovery – have been used voluntarily by industry years before they were incorporated into the NSPS regulations. Industry’s issues with these regulations have been largely related to interpretation and application in specific instances.
3. However, the fugitive emissions component of Subpart OOOOa presents a different circumstance. EPA’s choice of its Optical Gas Imaging (OGI) based requirements resulted in locking a technology that is rapidly becoming obsolete. Newer technologies are presenting more cost-effective approaches to achieve EPA’s objective but working these technologies into the framework of the NSPS presents an ongoing challenge.
4. The fugitive emissions regulations create an even greater problem regarding their application to low production wells (wells producing 15 BOE/day or less). When EPA was crafting its fugitive emissions program, it did not plan to apply it to low production wells. It never developed an accurate emissions profile or an economic assessment for low production wells. However, when EPA finalized the Subpart OOOOa regulations in 2016 under great political pressure from EDF and other professional environmental advocates, EPA expanded the scope of the requirements to all wells. The purported basis for the change in the final regulations, from the proposed regulations, was on data submitted by EDF during the Subpart OOOOa comment period. While it was apparently appropriate in 2016 to radically change course based on data supported during the comment period, EDF is singing a different tune when EPA is presented information during this comment period that they do not agree with and cannot legitimately refute. Significantly, EPA never revisited the implications of this change with regard its analysis of BSER, particularly with regard to the cost requirements for low production wells.

While the definition of low production wells is 15 b/day for oil and 90 mcf/d for natural gas, the national average for low production wells is about 2.8 b/d and 20 mcf/d, respectively. A regulatory structure based on high production wells in the hundreds of barrels per day and thousands of mcf/d has a vastly different economic impact on low production wells typically operated by small businesses.

5. The EDF and professional environmental advocate driven decision to change the regulated emissions from the Subpart OOOO target of VOC to the Subpart OOOOa target of methane dramatically expands the implications of EPA's low production well decision – especially as to existing sources. Because methane is neither a criteria pollutant nor a hazardous air pollutant, making it the targeted emission triggers the potential use of Clean Air Act Section 111(d). Section 111(d) creates the authority to generate nationwide existing source regulations using the NSPS BSER technology for new sources. While EDF complains EPA's proposal to base regulations on VOCs and then remove the path to regulating existing source does not adequately evaluate the impact on the environment and public health, EPA's decision in 2016 to regulate methane never evaluated the economic impact of regulating existing sources under 111(d). It seems rather ironic that EDF is claiming that EPA is not adequately evaluating the impact of not regulating existing sources under 111(d) when EPA never adequately evaluated the impact of opening Pandora's Box on existing sources when it arbitrarily elected to regulate methane in addition to VOCs under 111(b). This little used Clean Air Act provision was intended to be a limited use section that would apply to a very small number of sources. EPA's prior use of 111(d) affected relatively few facilities. However, its application to the oil and natural gas production industry would cover approximately one million oil and natural gas wells with about 75 percent being low production wells.
6. Unlike other sections of the Clean Air Act, Section 111(d) uses new source requirements rather than existing source technologies such as the Reasonably Available Control Technology (RACT) of the Nonattainment provisions of the Act. EPA's Subpart OOOOa fugitive emissions program will not be cost effective for existing low production wells putting all of these wells that are already facing enormous economic challenges at risk. EPA never evaluated the impact on low production wells of regulating existing sources. As advocated by the IPAA, establishing a sub-category for low production wells would necessitate such evaluation and would help ensure such controls are cost-effective and justified.
7. EDF has shown throughout the entire deliberations over Subpart OOOO and OOOOa that its priority issue has been the application of nationwide regulations to existing oil and natural gas facilities with its primary purpose to eliminate these facilities. Throughout this period, as the IPAA has shown, EDF has demonstrated its persistent efforts to distort any data related to low production wells to achieve this objective.

Evaluating the EDF 2020 Comments

Much of the EDF 2020 Comments hinges on two components. One is a study from Alberta, Canada, "Repeated leak detection and repair surveys reduce methane emissions over scale of years", (Alberta Study). The other is EDF's Methane Policy Analyzer. Before addressing specific accusations in the EDF 2020 Comments, it is useful to review these items.

Alberta Study

The Alberta Study looked at 36 different facilities, 30 of which were well sites or production pads. Ultimately, in its analysis of emissions from production facilities, the report provides detailed information on 22 of these sites. EDF attempts to use the Alberta Study to bolster its recurring allegations that low production wells should be treated the same as high production wells with regard to the application of expensive OGI Leak Detection and Repair (LDAR) programs. However, a closer look at the Alberta Study reveals a different result.

First, while the Alberta Study does parrot the EDF line that low production wells should be regulated, its own data does not address low production wells. The production volume of the smallest well site that the Alberta Study presents is calculated to produce 1300 mcf/d. This is over 13 times the regulatory definition of a low production well and over 50 times the average actual low production natural gas well.

Second, the compelling conclusion of the Alberta Study is its assessment that the dominant emissions sources at production operations are vessels – storage tanks. The Study states:

If tanks do not contain a control equipment like a vapor recovery unit, tank-related emissions are classified as vents. Here, tank-related emissions contributed to 75% of all vented emissions, or 64% of total emissions.

This statement is telling at two levels. One, tank emissions dominate the site emissions overwhelming any leaks that would be found from process equipment. Two, the tanks do not have vapor recovery systems.

What the Alberta Study really says is that tank controls provide the larger benefit in any oil and natural gas production emissions management program. The 2012 Subpart OOOO NSPS required storage tank vapor recovery and these requirements have now been in place for roughly 8 years. Moreover, by identifying this reality, it supports the argument that the IPAA has made regarding the inappropriateness of the 2016 Subpart OOOOa NSPS LDAR requirements for low production wells. Given that the emissions from these wells are small and that storage tanks are the likely sources, the expensive OGI LDAR program is unnecessary. If a program is needed, one that would target storage tanks using methods to assure that thief hatches are closed and seals are maintained would effectively manage these small sources, particularly any existing facilities.

Methane Policy Analyzer

A second key element of the EDF 2020 Comments relates to its efforts to portray the magnitude of methane emissions. EDF presents an array of confusing emissions tables that it attributes to the application of its Methane Policy Analyzer. While the IPAA cannot address those tables with emissions outside oil and natural gas production, the EDF 2020 Comments present emissions estimates in Table 5 related to oil and natural gas production operations. IPAA has addressed this technique previously in earlier comments.² These comments were summarized in the Independent Producer comments to the EPA 2019 Proposed Policy rulemaking:³

² Independent Producer Response/Supplemental Comments filed June 17, 2019, to Docket ID No. EPA-HQ-OAR-2017-0483, pages 12-15.

³ Independent Producer Comments filed November 25, 2019, to Docket ID No. EPA-HQ-OAR-2017-0757, pages 20-21.

Assessment of Studies: This EDF report was released with great fanfare during the 2018 World Gas Conference to create the appearance of new data showing methane emissions from the oil and natural gas industry value chain. The report purports to show that emissions are far higher than those reported in EPA GHGI. The JEC then refers to this report as a linchpin of its arguments for changes to the Subpart OOOOa proposal, particularly with regard to the fugitive emissions program with a special focus on low production wells. However, probing its details provides a far different perspective. Some highlights from the Independent Producers 2019 Comments follow:

This report is not new data. Rather, it is a reconstruction of prior data from others' studies. For example, it regurgitates the same information in the Super-Emitters study and adds some additional material from others.

As a consequence, the report suffers from no certainty regarding the quality of its data by possibly exacerbating bias and inaccuracies through incompatible sampling and data collection methodologies. It accepts as accurate everything it receives and these data have glaring deficiencies.

Additionally, the report is replete with questionable choices and use of data. It relies on short term measurements that it extrapolates to daily and annual emissions. It ignores that its own aerial survey data found no observed emissions from pneumatic controllers and equipment leaks that should have theoretically been high. It relies on the same specious percentage of sales approach as the Super-Emitters report. As the Independent Producers 2019 Comments conclude:

All of these pieces point to a consistent conclusion regarding the validity of the Assessment of Studies report. It builds on data that is not consistent and then excludes data it does not want. But, the final aspect of its effort is telling. The key to the development of the Assessment of Studies is its statistical manipulation of its data to develop emissions values where it does not have data. Here are some important statements by the authors:

We assume our underlying emissions pdfs are lognormal, which is expected in a system where many independent random and multiplicative events can contribute to the occurrence and magnitude of emissions

and

Results from both tests applied to all of the datasets used directly in this work indicate that one cannot reject the null hypothesis that the site-level sample data arise from a lognormal population distribution

These are extremely weak arguments – "we assume ... emissions pdfs are lognormal..."; "...one cannot reject the ... hypothesis that

the site-level ... data arise from a lognormal population distribution."

If they are not lognormal distributions, the entire framework for the Assessment of Studies report becomes suspect. Correspondingly, looking at the nature of the site emissions data – with all of the flaws associated with the assumptions in evaluating that data – there is little to suggest it is a lognormal distribution. These inadequacies and those described in the EID analysis of the report undermine the validity of the basis for arguing that the Assessment of Studies provides a basis for the fugitive emissions LDAR programs in Subpart OOOOa, particularly in their application to low production wells.

Collectively, the KIG lobby has used these reports to justify its targeting of low production wells. However, they do not make a plausible case. To the extent the KIG interests provide any viable data, it might indicate the most likely source of emissions is from storage tanks and not production equipment – however the volume of emissions is often below regulatory thresholds.

EDF's Methane Policy Analyzer is nothing more than a new name for an old, flawed product. Even though EDF can put together a table that purports to be accurate to a single digit, this calculation is meaningless. Its basis is purely derived from an array of distorted assumptions with the sole purpose of creating a regulatory scheme designed to drive existing low production wells out of business.

EDF's Comments in Context

The EDF 2020 Comments address a number of issues that pale (wilt?) under the light of scrutiny.

First, EDF spends a significant amount of effort highlighting action in Colorado to revise its LDAR requirements for oil and natural gas production facilities. There are two takeaways from these comments that are pertinent. One, Colorado was fully capable of developing its regulations without the need for the punitive nationwide existing source regulatory actions that EDF demands from the federal government. And, other states have developed their own regulatory systems as well. Two, it's unclear whether the Colorado regulations are the same as the NSPS requirements. However, it is apparent that EDF wants to imply that a semi-annual LDAR program for what are implicitly low production wells (storage tanks emitting 2 to 12 tons per year of VOC emissions) is cost effective. IPAA disagrees as described below:

EDF reports that Colorado determined that cost of the program would be \$742/ton for methane/ethane. This amount converts to about \$190/mcf of methane.

The average low production natural gas well in Colorado produces about 24 mcf/d. The Alberta Study that EDF references in its comments projects a loss rate of about one percent of production for its lower production wells. This would be about 0.24 mcf/d.

Assuming that this loss could even be measured and all of it could be recovered (which no one projects as feasible), at a natural gas price of \$2.00/mcf, it would result in income of 48 cents/day.

To recover the cost of the LDAR program, it would require 400 mcf to be captured ($\$192/\text{mcf} \div \0.48). At 0.24 mcf/d, it would take 1666 days.

Second, the EDF 2020 Comments relate a wandering collection of criticisms of the American Petroleum Institute's (API) assessments of the implications of an existing source regulation under Section 111(d) and throw a myriad of conflicting accusations into the record. IPAA will not try to respond to all of them but several allegations are pertinent to address. One of the major items relates to the number of wells that would be subject to a Section 111(d) regulation. This is an area that the IPAA has addressed several times but it remains important to revisit again. This issue revolves around the mix of existing wells at any given time. While the EDF 2020 Comments are intended to suggest that there is a need for an aggressive Section 111(d) LDAR program, IPAA believes that EDF has inadvertently demonstrated that such a regulation would fall on low production wells with high costs and limited effect.

On page 14 of the EDF 2020 Comments in footnote 53, EDF includes the following information:

According to Enervus data, described *infra* n. 68, 82% of existing wells produce on average less than 15 barrel equivalents per day, based on the most recent 12 months of production.

This determination is largely consistent with the determinations of the IPAA that the principal impact of a Section 111(d) regulation would fall on low production, small business wells. But, it raises a question of what the universe of wells are that make up the remaining 18 percent of wells and what the emissions profiles of those wells would be. As pointed out earlier, the Alberta Study demonstrated that the predominant emissions at well sites come from uncontrolled storage tanks. Subpart OOOO imposed controls on storage tanks in 2012. The IPAA submitted the following information regarding wells drilled since Subpart OOOO was finalized in its comments on the EPA 2019 Proposed Policy rulemaking:⁴

From 2012 through 2017, approximately 155,500 wells were drilled. However, several of these years were during low commodity prices that reduced drilling activity. Approximately, 41,000 wells are projected to be drilled in 2018 and 2019. Another 64,600 wells are projected from 2020 through 2022.

While the current economic stress on the oil and natural gas production industry will significantly reduce the number of wells drilled in the 2020-2022 timeframe, there are about 200,000 wells complying with Subpart OOOO. There are about 1,000,000 existing oil and natural gas wells in the United States and these Subpart OOOO wells exceed the 18 percent of the wells that the EDF 2020 Comments describe as being high production wells.

The importance of these facts is that the predominant emissions sources of large existing wells – storage tanks – are well regulated and would not be part of a Subpart OOOOa LDAR based Section 111(d) regulation, nor do they need to be. The issue then becomes whether there are real merits to compelling the 82 percent of existing wells that are low production wells averaging 2.8 barrels/day for oil and 20 mcf/d for natural gas to comply with the Subpart OOOOa LDAR requirements. Returning to the Alberta Study, it showed that leaks from processing equipment were a minor share of emissions at well sites; for low production wells they would likely be unmeasurable. At the same time a storage tank based maintenance program could provide a path

⁴ Independent Producer Comments filed November 25, 2019, to Docket ID No. EPA-HQ-OAR-2017-0757, page 10.

to manage those emissions. However, such a program is not the BSER technology that would be applied under a Section 111(d) regulation based on the 2016 Subpart OOOOa NSPS.

Third, the EDF 2020 Comments direct specific criticism toward the IPAA statements on low production wells. The Comments assert that the EDF Methane Policy Analyzer shows significant emissions from low production wells and that the Alberta Study supports regulations on low production wells. Each of these issues has been addressed above. However, to summarize our assessment of these allegations: (1) the EDF Methane Policy Analyzer is a contrived mechanism to generate emissions numbers based on a highly flawed manipulation of limited emissions data that has not been quality controlled, and (2) the Alberta Study concludes that the primary sources of well site emissions are storage tanks and its report did not include any low production wells.

Fourth, the EDF 2020 Comments allege the existence of health risks to those who live near oil and natural gas production facilities. This is a common Keep It in the Ground allegation. But, it is unsupported. Routinely, these allegations are made in thinly contrived analyzes passed off as health studies. The Energy in Depth Health & Safety project regularly reviews and assesses these studies and others that evaluate them. Many are local reports, but some are more national in scope. Following are links to two reports that are illustrative, showing that oil and natural gas production operations do not present health threats from normal operations:

Anti-Fracking Researcher Quietly Admits: Studies Show No Harmful Pollutants Near Oil And Gas Sites (<https://eidhealth.org/anti-fracking-researcher-quietly-admits-studies-show-no-harmful-pollutants-near-oil-and-gas-sites/>)

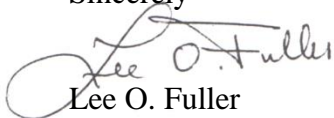
Study Finds Model Used In Activists' Research Doesn't Jibe with Real Air Monitoring (<https://www.energyindepth.org/study-finds-model-used-in-activists-research-doesnt-jibe-with-real-air-monitoring/?154>)

Conclusion

The EDF 2020 Comments continue the perpetual effort to use the federal regulatory system as a mechanism to end the operation of hundreds of thousands for small business, low production wells through the application of requirements that were never designed for their emissions profile and economics. EPA should not fall into this trap. It has options available to it that can allow for the development of sound low production well emissions management. If it chooses to change the regulated emission to VOC, the management of emissions from new sources will remain the same since both VOC and methane are emitted together and managed simultaneously. Existing sources would be regulated through Control Techniques Guidelines based on RACT. EPA also has the option of crafting a subcategory within the NSPS program for low production wells that would allow EPA to develop appropriate requirements for low production wells that reflect their emissions profile and their economics.

IPAA appreciates the opportunity to submit these comments. If there are any questions, please contact Lee Fuller at lfuller@ipaa.org or by telephone at 202-857-4722.

Sincerely



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