

November 25, 2019

Submitted via regulations.gov

Andrew R. Wheeler Administrator U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

RE: Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources (OOOOa) Review, Docket ID No. EPA-HQ-OAR-2017-0757

Dear Administrator Wheeler:

Western Energy Alliance (Alliance) supports EPA's primary proposal to regulate methane as a co-benefit of controlling Volatile Organic Compounds (VOC), as it realigns Subpart OOOOa in a manner consistent with the Clean Air Act (CAA) while capturing the same amount of methane from the production and processing segments of the industry as the previous New Source Performance Standard (NSPS) rule did. The Alliance likewise supports EPA's proposed interpretation of CAA Section 111 as requiring a separate endangerment and Significant Contribution Finding (SCF) for each source category properly established under the CAA in order to regulate sources of emissions under Section 111(b)(1).

To Western Energy Alliance, the law matters. Were EPA to continue with the flawed 2016 Subpart OOOOa NSPS rule (2016 rule) approach, the government would be assuming broad powers that go far beyond what Congress intended when it passed the CAA in 1970 and again when it amended it in 1990. By aligning the OOOOa rule back to the original approach in OOOO of regulating methane as a co-benefit, EPA corrects its previous deviation from the CAA process.

The Alliance believes it is critically important for EPA to adhere to the law and does not condone the extra-legal expansion of the rule in 2012 and 2016 to a distinct and separate source category, the transmission and storage segment. The transmission and storage segment was not originally considered in the Crude Oil and Natural Gas Production Plant source category identified in 1979, was improperly added in the 2012 Subpart OOOO NSPS rule (2012 rule) and the 2016 rule, and has not undergone a proper SCF. With the primary alternative, EPA is correcting those deviations from the required CAA regulatory process under Section 111(b)(1).

Short circuiting the required process and overregulating is not only detrimental to the economy, but also detrimental to public health and the environment. By expanding regulation beyond what is specified in the CAA, EPA abuses its power and may suppress economic growth and job creation, which are the foundation for ensuring society has the

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resources to protect the environment and human health. It is well documented that individuals who have well-paying jobs, like the 10.3 million attributable to the oil and natural gas industry, whether directly, indirectly or induced,¹ have the economic means to ensure a healthy and safe environment for their families.² Likewise, societies with robust economic growth and job creation have the wherewithal to better protect their environment than do nations without strong economies.³ Adhering to the law ensures a balance is achieved that ultimately better protects public health and the environment.

Western Energy Alliance appreciates the opportunity to comment on this proposed policy rule. The Alliance represents 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. Alliance members are independents, the majority of which are small businesses with an average of fifteen employees. The majority of members therefore feel the weight of unnecessary and unduly burdensome regulations more acutely than do larger companies.

Climate Change Benefit

Additional red tape and the duplicative regulation inherent in the 2016 rule in particular add significant costs to oil and natural gas development, and "unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest."⁴ The extent to which the 2016 rule increases costs unnecessarily or without significant benefits results in a corresponding suppression of American energy production, also unnecessarily.

The oil and natural gas industry has delivered the largest reduction in U.S. greenhouse gas (GHG) emissions-more than any other industry or government climate change policythrough fuel switching in the electricity sector from coal to natural gas.⁵ Increased use of natural gas is the number one reason the United States has reduced greenhouse gas emissions more than any other developed country, achieving emission levels 12 percent lower than in 2005.⁶ As such, overregulation of the industry threatens to suppress a primary means for reducing GHG emissions.

¹ *Impacts of the Oil and Natural Gas Industry on the US Economy in 2015*, PWC prepared for the American Petroleum Institute, July 2017.

 ² <u>How Are Income and Wealth Linked to Health and Longevity?</u>, Center on Society and Health, April 2015.

³ See for example "<u>Confronting the Environmental Kuznets Curve</u>," *Journal of Economic Perspectives*, Dasgupta, LaPlante, Wang, Wheeler, Winter 2002.

⁴ Promoting Energy Independence and Economic Growth, Executive Order 13783, March 28, 2017.

⁵ <u>U.S. Energy-Related Carbon Dioxide Emissions, 2018</u>, Energy Information Administration (EIA), November 2019.

⁶ Ibid.

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The 2016 rule focused on relatively small amounts of methane from production and processing. Several academic studies indicate methane leaks from the production and sector are in the range of 1.2 to 1.7 percent of production,⁷ in line with EPA's GHG inventory and well below the 3.2 percent threshold believed to represent the point at which natural gas ceases to deliver an overall climate change benefit.⁸

Furthermore, GHG emissions from the entire production and processing sector are a small percentage of overall U.S. GHG emissions. Using EPA's GHG inventory published in April of 2019, methane emissions from the production and processing segment total 146.4 MMT CO_2 eq, which amounts to 2.2% of the 6,456.7 total U.S. GHG emissions.⁹ EPA displays similar data in Tables 7 and 8 of the preamble, relative to total U.S. and global GHG emissions. This low 2% and 0.3% contribution, respectively, is illustrative, but we would like to draw an additional comparison.

The electricity sector is responsible for 1,732 MMT CO_2 eq, an order of magnitude higher than the oil and natural gas production and processing sector, or 27% of U.S. emissions.¹⁰ As EIA shows in its analysis of EPA GHG emissions data, fuel switching from coal to natural gas reduced 365 MMT CO_2 eq In 2017, about 2.5 times more than the 146.4 MMT CO_2 eq emissions from the production and processing source category that is the subject of this proposed rule.¹¹ EPA's GHG inventory Executive Summary indeed highlights that fuel switching from coal to natural gas is a primary reason GHG emissions went down from 2016 to 2017.

The 2016 rule's focus on small leaks of methane, to the extent its redundant regulatory requirements added cost to the production and processing segment, actually jeopardizes the much greater GHG reduction benefit that the industry delivers, a paradoxical outcome

⁷ <u>Measurement of Methane Emissions at Natural Gas Production Sites</u>, Allen et. al., University of Texas, October 2012; <u>Methane Emissions from Process Equipment at Natural Gas Production Sites</u> <u>in the United States: Pneumatic Controllers</u>, Allen et. al., December 9, 2014; <u>Methane Emissions</u> <u>from Process Equipment at Natural Gas Production Sites in the United States: Liquid Unloadings</u>, Allen et. al., December 9, 2014; <u>Constructing a Spatially Resolved Methane Emission Inventory for</u> <u>the Barnett Shale Region</u>, Lyon et. al., July 7, 2015; <u>Synthesis of recent ground-level methane</u> <u>emission measurements from the U.S. natural gas supply chain</u>, Littlefield et. al., April 1, 2017; <u>Methane Emissions from United States Natural Gas Gathering and Processing</u>, Marchese et., al., August 18, 2015; Quantifying atmospheric methane emissions from the Haynesville, Fayetteville, and northeastern Marcellus shale gas production regions, Peischi et. al., February 18, 2015; <u>Reconciling divergent estimates of oil and gas methane emissions</u>, Zavala-Araiza et. al., November 10, 2015.

⁸ See a <u>summary</u> of the issue drawn from *World Energy Outlook 2017,* International Energy Administration, November 14, 2017.

 ⁹ <u>Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990 – 2017</u>, U.S. EPA, April 11, 2019.
¹⁰ Id., Table ES-3.

¹¹ EIA, Figure 9.

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counter to EPA's goal of reducing U.S. GHG emissions. Might we suggest that EPA use these data as further justification and rationale for this proposed rule.

We would also like to point out that since 2006, fuel switching from coal to natural gas in the electricity sector has reduced 2,823 MMT CO_2 eq, significantly more than the 1,799 MMT CO_2 eq attributed to noncarbon energy such as wind and solar.¹²

The benefits of increased consumption of natural gas exceed the relatively small fugitive methane emissions from the production and processing segments that were targeted by the 2016 rule. That forest gets lost in the trees when focusing on leaks while ignoring the much larger GHG reduction benefit to be gained on the consumption side. As this proposed rule removes an improper regulatory impediment to natural gas production, EPA should acknowledge the larger environmental and climate change benefit.

Methane Co-Benefit Rationale

Western Energy Alliance supports the approach adopted by EPA in the primary proposal for regulating methane as a co-benefit of controlling VOCs in the production and processing source category. Because of the nature of VOC control technologies, and due to the ubiquitous presence of methane and VOCs together in the emissions from this source category in particular, methane is captured along with VOCs. As such, removing the written word "methane" from the rule does not remove it from capture on the ground. While the rule on paper changes, every molecule of methane that was being captured by the 2012 and 2016 rules will continue to be captured at new, modified and reconstructed sources for the production and processing segment.

Besides continuing the environmental protection currently in place, the new rule has the advantage of removing regulatory redundancy.¹³ Western Energy Alliance strongly supports removing regulatory redundancy, and the rationale on p. 50246 is sound when choosing VOCs over methane. The requirements for VOC emissions are much longer standing and for many different sources, whereas methane was added only in 2016 for limited source categories. We suggest another rationale for choosing control of VOCs over a redundant methane requirement. VOCs are a regulated precursor to ozone, a NAAQs criteria pollutant. Methane is not a criteria pollutant, nor has an appropriate

¹² Ibid.

¹³ p. 50246 "The EPA recognizes that in proposing to rescind one set of standards in part for its redundancy with another set, the EPA is choosing to rescind the applicability of those standards to methane emissions and not VOC emissions, rather than vice-versa. Rescinding the methane-specific standards is reasonable because the requirements for VOC and correspondingly, sources' compliance with those requirements, are longer established than those for methane. As described earlier, the EPA regulated VOC first, beginning in 1985 and continuing in 2012, and then added regulation of methane for some sources in 2016."

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endangerment finding and SCF been conducted for this source category with respect to methane. In addition, the 1979 endangerment finding for the production and processing source category neither included nor was based on methane.

Pollutant-Specific Significant Contribution Finding

The Alliance does not agree with retaining the 2016 rule's approach regarding whether a pollutant-specific SCF for the oil and natural gas production and processing source category is required with respect to methane. EPA's examples of other provisions of the CAA, and EPA's own prior interpretations of CAA Section 111(b)(1)(A), supporting an interpretation of that section as requiring a pollutant-specific SCF are reasonable, and more consistent with Congress' intent. Thus, we believe that before EPA proceeds with any rulemaking in the future that directly regulates methane in this source category, a proper SCF rulemaking would need to occur.

In particular, we agree with much of the rationale set forth in Section VI of the Preamble regarding the parts of the primary proposal that identify the rationale for a pollutant-specific SCF being required under CAA Section 111(b)(1)(A). That rationale is founded upon; 1) other similar provisions of the CAA which require EPA to make an endangerment or cause or contribute finding; 2) the anomalous result that could occur from multi-pollutant SCF findings that require the control of a pollutant not ever found to cause or contribute significantly to air pollution reasonably anticipated to endanger public health or welfare; 3) the lack of criteria to guide and limit EPA discretion if simply left to a "rational basis" standard that applies to all rules developed by all agencies under the Administrative Procedure Act; and 4) legislative history which indicates Congress must have intended to require pollutant-specific SCF findings under Section 111(b)(1)(A). While the Alliance does not presuppose the outcome of such an SCF rulemaking, the CAA should be interpreted reasonably by EPA as clearly requiring such a regulatory process before regulating methane directly, or indeed any other pollutant not identified when establishing the source category under Section 111(b)(1)(A).

Existing Sources

Regarding Section VII of the preamble on "Implications for Regulating Existing Sources," we agree with EPA that regulating methane as a co-benefit of VOC control removes the statutory trigger for regulating existing sources in the oil and natural gas production and processing source category under CAA section 111(d). If a proper SCF with respect to methane is made in the future, that would be the time to address existing source methane control requirements under CAA Section 111(d). We also agree with EPA's rationale that because of the nature of the oil and natural gas industry, with the inevitable decline in production from existing wells and their associated facilities, many existing sources will be retired, fall below regulatory thresholds, or become subject to regulation under OOOOa due to modifications.

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EPA's analysis of compliance reports and Drillinginfo data seems reasonable, as they are the best available information. While we do not have data to add at this time, we would point out a general rule of thumb that today's wells produce about 80 percent of production within the first few years of production, and then slowly decline over a longer period. Since new wells must be drilled to maintain or increase production, the percentage of American production subject to OOOOa will increase steadily over a relatively short period of time. Thus the vast majority of production and its associated potential methane emissions will be subject to OOOOa in the near future. The amount of existing production subject to Subpart OOOOa requirements rather than just the number of existing wells could likewise be used as a rationale in support of EPA's approach.

Fortunately, the Department of Energy (DOE) is working on a marginal well study that will provide much of the data EPA seeks. The report will help to clarify the nature of marginal wells and their contribution to emissions. Further, the report will help quantify the impact of existing source regulation on marginal wells, which are particularly vulnerable to becoming shut in or plugged and abandoned at a point when regulatory compliance costs exceed the income generated by these wells.

Many marginal wells are operated by very small companies that do not have the means to absorb compliance costs above the income generated from those wells, meaning many would be abandoned. Even very large companies with legacy assets must assess the impact of compliance costs on each individual well to determine if they will continue to operate them. When wells are prematurely plugged and abandoned, not only do people lose their jobs and income, but the United States loses a source of energy. Marginal wells provide about 8.5% of U.S. oil and 7.0% of natural gas production.¹⁴ While that may seem like a relatively modest percentage, marginal wells taken together would rank as the third-largest oil producing state in 2015 with 292.5 million barrels.¹⁵ Stranding those assets is a waste of American energy resources, as well as a waste of equipment and infrastructure with remaining useful life. Besides following the CAA's SCF requirements before proceeding with a 111(d) existing source regulation, EPA is wise to wait for the results of DOE's marginal well study in order to understand the impact on marginal wells.

Alternative Technologies

It has become clear during the implementation of the 2016 rule and certain similar state rules such as Colorado's Regulation 7, that highly prescriptive regulations that effectively lock industry into using a particular technology for Leak Detection and Repair (LDAR), such as optical gas imaging technology and FLIR cameras in particular, may not be the most

 ¹⁴ <u>Marginal Wells: Fuel for Economic Growth</u>, Interstate Oil and Gas Compact Commission, 2015, p.23.

¹⁵ Ibid.

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effective and efficient means for finding and fixing leaks.¹⁶ The sooner leaks can be detected and fixed, the more VOCs and methane will be captured. But rules such as Colorado's ensure LDAR will remain locked into inefficient and labor-intensive methods.

Industry continues to innovate in the LDAR space, developing new technologies that enable remote or overhead detection of leaks much quicker than the model set by Colorado, which requires physical visits to the field at set intervals. We urge EPA not to fall into the same trap of locking in technological obsolescence, thereby stifling innovation and the power of this industry to compete and find more efficient and effective means to achieve the outcome of finding and fixing leaks.

Likewise, quantification and speciation of leaks is not a prudent path. Trying to quantify or speciate small leaks wastes time and resources chasing information of limited value and at great expense and difficulty, when the goal of LDAR should be to find leaks quickly and repair them as soon as possible. Repairing the source of the leak will deliver the greatest environmental benefit, whereas attempting to quantify mostly very small emissions delivers no additional benefit.

The Alliance appreciates the opportunity to comment on the proposed rule. We appreciate the Administrator's leadership in realigning this NSPS regulation with the law, and the clear articulation of a methane policy that EPA has accomplished in the proposed revision.

Sincerely,

Kathleen M. Sgamma President

¹⁶ Colorado's Air Quality Control Commission Regulation No. 7 purports to accommodate alternative Approved Instrument Monitoring Methods (AIMM), but the agency's failure to approve such alternative AIMM to date has effectively locked the industry into use of OGI.