December 17, 2018

Submitted via regulations.gov

The Honorable Andrew Wheeler,
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

RE: New Source Performance Standards for the Oil and Natural Gas Sector: Emission Standards for New and Modified Sources (0000a) Docket ID No. EPA-HQ-OAR-2017-0483

Dear Acting Administrator Wheeler:

Western Energy Alliance (Alliance) appreciates the opportunity to comment on the proposed revisions of the New Source Performance Standards for the Oil and Natural Gas sector. The Alliance believes that EPA has made significant positive changes to the regulation, but a few clarifications would help prevent a disproportionate impact on the independent oil and natural gas companies we represent.

Western Energy Alliance represents over 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.

EPA is on the right track in revising O000a, as the changes proposed are designed to fix many of the technical issues with the rule, but more importantly there is a recognition of the role of the oil and natural gas industry as the number one reason the United States has reduced greenhouse gas emissions more than any other country. Largely because of fuel switching from coal to natural gas which has significantly reduced emissions in the electricity sector, the United States’ CO₂ emissions have decreased 14% since 2005.¹

EPA’s analysis of the proposed O000a revision indicates it could lead to 1.4 million metric tons of CO₂ equivalents to be released each year compared to the previous rule. This small amount represents just 0.02% of total U.S. greenhouse gas emissions, even taking into account the higher potency of methane. In comparison, Energy Information Administration (EIA) data show that last year fuel switching to natural gas in the electricity sector resulted in a savings of 348 million metric tons of carbon dioxide equivalents, many

¹ EPA GHG Emissions, 2016
times more than that leakage. In fact, power plants switching from coal to natural gas since 2005 have reduced 2,360 million metric tons, 61% of the fuel-switching reductions in the electricity sector, while wind and solar have delivered only a 1,494 million metric ton reduction, representing 39%.\(^2\) We believe that the added flexibility in the proposed rule would enable better utilization of new methane detection technologies that could indeed drive that miniscule number even lower.

**Positive Changes**

The Alliance would like to commend EPA for listening to industry concerns with the initial implementation of OOOOa. Many of those concerns were addressed in these revisions and will allow the continued environmentally responsible development of oil and natural gas in our country. We specifically support the following revisions:

- The proposal to extend technical infeasibility to control pneumatic pumps to all sites, including to “greenfield” or new sites.

- The proposal to amend the well-site definition to exclude third-party equipment from leak detection and repair (LDAR) requirements, an example being custody meters.

- The exclusion of salt water disposal wells from the well site definition and LDAR requirements.

- The change to the proposed definitions and time frames for the repair of leaks found during LDAR inspections. The 30-day deadline for the first attempt at repair and 60-day deadline for actual repair are reasonable time frames from when a leak is first detected. We also strongly support the proposed option for the repairs to be delayed until the next plant shutdown.

- The proposed amendments to the rule regarding well completions including the clarification that the separator can be at a centralized facility or well pad.

- The proposed exclusions to the definition of flowback, including the definitions of screenouts, cleanouts, and drill-outs.

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\(^2\) US Energy Information Administration, pg. 12, September 2018
• The proposed simplification of the definition of startup of production for the purpose of LDAR for wells not hydraulically fractured. The previous definition was difficult to implement, and the proposed language gets closer to the clarity that industry desires.

• The option of accepting an in-house engineer in addition to a professional engineer (PE) for design certification, and extending such qualified engineers to third parties, since facility design is often conducted by qualified third-party contractors.

• The amendment to the definition of certifying official to remove reference to permits.

The positive changes detailed above address the regulatory burdens described by Executive Order 13783 on Promoting Energy Independence and Economic Growth, which initially directed a review of NSPS OOOOa.³

Suggested Changes

Western Energy Alliance recommends the following changes to recognize and facilitate best practices for controls and monitoring. Our suggested changes would continue to ensure or even enhance emissions reduction while streamlining recordkeeping and reporting. Listed below are our top concerns with the proposed revisions that should be changed to better comply with Executive Order 13783.

1.) **Storage Vessels**

   a.) **Averaging**

Western Energy Alliance do not believe that the proposed revisions to storage vessels are technically, legally, or economically justified. It appears that EPA has concerns about operators adding more tanks on a well pad to reduce the emissions of each individual tank to below the OOOO and OOOOa threshold of six tons per year (tpy) of volatile organic compounds (VOC). This does not reflect the reality of how new facilities are constructed. Ever since the initial OOOO was proposed in 2011, there has been a consistent method for determining if a storage vessel was considered an affected facility. The technical support

³ E.O. 13783 of Mar 28, 2017, Section 7
document (TSD) from the initial OOOO proposal tells explicitly how to average tanks from a battery:

“For purposes of evaluation NSPS impact, impacts were determined for an average storage vessel by calculating total VOC emission from all storage vessels and dividing by the total number of impacted storage vessels to obtain the average VOC emissions per storage vessel”.

The original OOOO proposal also allows “using any generally accepted model or calculation methodology” to calculate emissions from the storage tanks. Dividing the overall throughput and emissions by the number of storage tanks is a generally accepted method of determining PTE and therefore applicability, in accordance with OOOO, OOOOa, states, and consent decrees.

The current proposal seems to upend that tradition by assuming that the liquid flowing in the tank battery only goes to one tank. The ultimate destination of each liquid dump in the tanks is meaningless; in tank batteries sharing a common vapor capture system, tank headspaces are manifolded together and vapor pressure equilibrates across the battery. We request that EPA follows the traditional calculation methodology which is used by Colorado, Texas, and many other states, and is accepted by EPA as appropriate practice in consent decrees.

We recommend that the maximum average daily throughput definition be removed, because it does not accurately describe the production characteristics of most modern wells. Initial production data often does not give a good characterization of a well’s average production, which can often peak up to six months after first production. Attempting to use only the days on which there is production into a given tank to calculate the maximum average daily throughput value over predicts the emissions for the entire tank battery over the course of the year. It may also lead to oversizing of the control device(s) and subsequently to additional combustion emissions and the potential for visible emissions. Further, not all operations may be equipped with the means to measure flow into individual tanks, and certainly may not have data to retroactively apply the new methods to existing batteries.

b.) Legally and Practically Enforceable Controls

NSPS OOOO and OOOOa have provided clear methods in the past to exempt storage tanks from the rules by controlling tanks with less than six tons per year (tpy) of VOC emissions under a legally and practically enforceable state standard. Retroactively changing the way

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4 Oil and Natural Gas Sector: Emission Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution (EPA-HQ-OAR-2010-0505-0045), August 2011, Table 7-12, pg. 7-23
5 77 FR 49489, Pg 49545, October 2012
tank emission are calculated and what constitutes a legally and practically enforceable standard puts operators in a tenuous position related to compliance. Prescriptive enforceability is not needed at the federal level, as states have developed requirements to enforce compliance of their standards. EPA should respect the primacy granted to state air permitting programs.

**c.) Recordkeeping**

The proposed recordkeeping requirements around this new interpretation of determining storage tank applicability are unnecessary and infeasible for many reasons. Asking for individual tank volumes and throughputs for an entire tank battery is a paperwork exercise that is not effective at reducing emissions. For example, a common configuration of a tank battery is a series of bottom manifolded tanks. This configuration makes it impossible to segregate volumes for each individual tank. Furthermore, recycling of the stored liquids by pumping them through the battery is a common practice that comingles the volumes between tanks. Which tank the liquid flows to during recycling is dependent on the quality and quantity of the produced liquids. Another difficulty in the proposed rule is tying loadout slips to individual tanks, which is a burdensome task that not all operators have the capability to track, especially in operations where the production is sold through a lease automatic custody transfer (LACT) unit. Opening the thief hatches to gauge the liquid level increases emissions, is a safety concern, and introduces oxygen into the system which can affect control device performance. Finally, the recordkeeping requirements for determining non-applicability should not be required.

**2.) Leak Detection and Repair**

**a.) Monitoring Frequency**

We support the move from semi to annual for leak detection for well sites. Many fields are so spread out that there are not enough production wells to make this program cost effective and may make it cost prohibitive. We do support the biennial move for low production well sites but request a reinstatement of the complete exemption/off ramp from the original OOOOa proposal.

The lack of an LDAR complete exemption and off-ramp for wells that transition to low production is a top concern for the Alliance. We request that once a facility falls below the 15 barrel of oil equivalent (BOE) per day threshold for leak detection, there is an exemption from recordkeeping, and reporting requirements as if its initial production was less than 15 BOE.

**b.) Initial Monitoring**
The initial LDAR monitoring of facilities is the most onerous requirement for operators. For more remote facilities, the proposed 60-day timeline to complete the initial LDAR inspection after a new well is completed can be difficult to meet and we propose that the initial monitoring be required by the next annual inspection or within 180 days, whichever is first.

Also, many operators report multiple wells are hydraulically fractured sequentially on the same well site pad. When the completions for later wells continue through the 60 days of initial production for the earlier wells, it makes it unsafe to conduct the initial LDAR for the earlier wells during frac jobs of the later wells. We propose that initial monitoring of such a well site take place within 60 days after the last frac at these multiple well pads.

c.) Observation path

Finding and fixing leaks are a priority for industry. Spending time updating the observation path and sitemap with deviations from every inspection takes away from the time available to fix and repair leaks. Furthermore, the two proposed options to the observation path approach are more burdensome than the existing observation path method. A comprehensive description of the location of each fugitive emission component is an enormous undertaking that will disincentivize the adoption of this option. The other alternative proposed is utilizing the inventory requirement for Method 21; this is not necessary for an OGI survey, which EPA favors over Method 21 due to its efficiency. Deviations are often done to the observation path to perform a more effective inspection. However, the claim that such deviations “are not necessarily deviations from the requirements of the rule” leaves open the possibility that deviations from the observation path could lead to an enforcement action. Often these deviations are required to complete an OGI survey, and not deviating from the path could actually lead to not complying with the rule.

d.) Alternative Means for Emission Limitation (AMEL)

The ability to have emerging technologies qualify for AMEL is a necessary option to maintain the United States’ leadership in environmentally responsible oil and natural gas production. Unfortunately, the proposed method of gaining this certification is incredibly burdensome and will actually hamper not facilitate the development, approval, and implementation of technology that can more economically pinpoint leaks in the production equipment. Optical gas imaging (OGI) is an approved technology that can be utilized in all basins and by all operators, we request that other alternative methods be treated in the same manner. Concerns regarding site characteristics, or basin factors, affecting the accuracy of alternative technologies can be addressed through protocols in the approved procedures. For example, OGI monitoring protocols include making sure wind speed and temperature effects do not influence the results from the camera.

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6 FR 2018-20961, pg. 52078, December 2018
A more streamlined approval process is needed so that industry can continue its four-decade long track record of reducing methane emissions from the wellhead. We appreciate the option for technologies to be utilized by operators in an entire basin, but we request that technologies going through this process be approved for use by all operators in all producing basins. A clearinghouse for approved technologies is an alternative that would be acceptable. The vendors of these emerging technologies are the experts who can best demonstrate their efficacy, including compared to OGI, in a controlled environment such as at Colorado State University’s Methane Emissions Technology Evaluation Center.

The proposed rule brings a single-source perspective to AMEL. That narrow framework handcuffs EPA’s review of new leak detection methods and will result in slower and smaller emission reductions. Many of the emerging technologies improve leak detection by monitoring well fields instead of individual well sites. Instead of inspecting facilities one at a time with handheld cameras, tomorrow’s methane and VOC monitors will rapidly inspect many well sites and compressor stations with vehicles, aircraft, drones, fixed lasers that survey the landscape, or satellites. We encourage EPA to reframe its AMEL proposal. EPA should leave behind its laborious review of site-specific AMEL applications, embrace systems thinking, and entertain applications to inspect many facilities at once.

The Clean Air Act allows EPA to review AMEL applications and determine equivalence for source categories. AMEL is governed by Clean Air Act Section 111(h)(3), which says that if “any person establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such air pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source” (emphasis added). EPA appears to believe the words “by the source” require AMEL decisions to be site-specific.

This view is wrong for several reasons. First, the requirements of paragraph (1) apply to source categories. Reading the paragraphs together and in parallel, the paragraph (3) alternatives should also apply to source categories. Second, paragraph (3) requires an equivalent “reduction in emissions of such air pollutant,” not an equivalent “reduction in emissions from a source.” Third, EPA must interpret Section 111(h)(3) consistently with the AMEL provisions of Section 112(h)(3), which says that if “the owner or operator of any source establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source” (emphasis added). Although the italicized portions of Section 112(h)(3) could more easily be interpreted as limiting AMEL to individual sources, this statute’s implementing regulations state that EPA’s notice permitting the use of AMEL “will restrict
the permission to the source(s) or category(ies) of sources on which the alternative means will achieve equivalent emission reductions.”

EPA should interpret the two statutes consistently by entertaining applications to use AMEL on categories of sources under Section 111(h)(3). The categories of sources for AMEL should be the same categories established elsewhere in NSPS OOOOa, namely the collection of fugitive emissions components at a well site and at a compressor station. In other words, EPA should approve AMEL for industry-wide use.

e.) State Equivalency

States have been in the lead on developing methods to control emissions from oil and gas operations for decades and have robust methods for achieving emission reductions that are effective and responsive to industry. The proposed state equivalency process in OOOOa attempts to allow those state programs to substitute for complying with the federal regulations, but still requires OOOOa monitoring plan, reporting, and recordkeeping. This proposal for state equivalency should be revised to a true equivalency and allow a complete exemption from OOOOa LDAR, if the equivalent state program includes monitoring of the same fugitive components as required by OOOOa.

Based on Table 2 of EPA’s “Equivalency of State Fugitive Emissions Programs for Well Sites and Compressor Stations to Proposed Standards at 40 CFR Part 60, Subpart OOOOa” document, EPA does not seem to understand the scope of applicability of the state requirements. For example, Colorado Regulation 7 LDAR requirement define component as “each pump seal, flange, pressure relief device (including thief hatches or other openings on a controlled storage tank), connector, and valve that contains or contacts a process stream with hydrocarbons, except for components in process streams consisting of glycol, amine, produced water, or methanol.” Based on this definition, storage tanks, closed vent systems, covers, and thief hatches are clearly included in the scope of Colorado’s LDAR program. This fact is not reflected in EPA’s analysis and suggests that Colorado’s program is equivalent, and EPA should not require operators to comply with the additional monitoring plan and reporting requirements in the current proposal.

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7 40 C.F.R § 61.12(d)(1), e-CFR, December 2018
8 EPA-HQ-OAR-2017-0483, August 2018
We suggest reconsideration of the proposed 90-day notice requirement for an owner or operator electing to comply with an alternative program. Given that the initial LDAR inspection under OOOOa is due within 60 days of startup of production, it is not feasible for operators to file 90-day notice prior to the initial inspection deadline. We propose that owners or operators should be able to file notice with the initial annual report that the facility is being monitored under an alternative program.

3.) Definitions

a.) Segment Clarification

The Alliance requests clarification on how the standards apply to each segment within the Oil and Natural Gas Source Category, specifically the distinction between the Production and Processing segments. In Chapter 2 of the NSPS OOOOa Background Technical Support Document (TSD), EPA states:

“The final rule covers emission sources within the oil and natural gas source category, which includes onshore crude oil production and natural gas production, processing, transmission and storage.”

These are three discreet segments that EPA defined and analyzed for the best system of emission reduction (BSER). The production segment includes everything from the wellhead through gathering system and ends at the refinery or natural gas processing plant. EPA describes the division of these segments as:

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9 Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Background Technical Support Document (EPA-HQ-OAR-2010-0505-7631), May 2016
“The oil refinery sector is considered separately from the oil and natural gas sector. Therefore, at the point of custody transfer at the refinery, the oil leaves the oil and natural gas sector and enters the petroleum refining sector.”

and

“Natural gas processing consists of separating certain hydrocarbons and fluids from the natural gas to produced “pipeline quality” dry natural gas. While some of the processing can be accomplished in the production segment, the complete processing of natural gas takes place in the natural gas processing segment.”

and

The pipeline quality natural gas leaves the processing segment and enters the transmission and storage segment.

EPA states that some processing of natural gas can occur in either the Production or Processing segments. It is our understanding from the TSD that a Natural Gas Processing Plant (gas plant) can only exist in the Processing Segment, which begins at the end of the gathering system and ends when pipeline quality dry gas is delivered into the Transmission and Storage Segment. Additionally, any processing activity that happens before the end of the gathering system or custody transfer at a refinery is in the Production Segment. Therefore, those standards that have been established for natural gas processing plants (e.g., pneumatic controllers, pneumatic pumps, sweetening unit, etc.) only apply to affected facilities in the Natural Gas Processing Segment.

In cases where there are temporary midstream gas takeaway constraints, operators of oil and natural gas production facilities have installed temporary portable natural gas liquid processing skids to limit the waste of resource and to minimize VOC emissions. These temporary portable natural gas liquid processing skids are typically leased units and onsite for less than a year and are removed from service when the midstream constraints have been resolved, and all the natural gas can be gathered. Further burdening this proactive approach to reduce VOC emissions with terms and conditions applicable to the natural gas processing sector is a disincentive to their use.

The Alliance would like clarity in the final rule that requirements applicable to natural gas processing pertaining to the natural gas processing sector do not extend to temporary portable natural gas liquid processing skids in the natural gas production sector.

b.) Pneumatic Pump Definition Clarification

The Alliance requests clarification of the definition of Natural Gas Driven Diaphragm Pumps.

NSPS OOOOa defined Natural Gas-Driven Diaphragm Pumps as:

*Natural gas-driven diaphragm pump means a positive displacement pump powered by pressurized natural gas that uses the reciprocating action of flexible*
diaphragms in conjunction with check valves to pump a fluid. A pump in which a fluid is displaced by a piston driven by a diaphragm is not considered a diaphragm pump for purposes of this subpart. A lean glycol circulation pump that relies on energy exchange with the rich glycol from the contactor is not considered a diaphragm pump.  

There are three pumps described in this definition:

- **Pump #1** - Natural gas-driven diaphragm pump means a positive displacement pump powered by pressurized natural gas that uses the reciprocating action of flexible diaphragms in conjunction with check valves to pump a fluid.
- **Pump #2** - A pump in which a fluid is displaced by a piston driven by a diaphragm is not considered a diaphragm pump for purposes of this subpart.
- **Pump #3** - A lean glycol circulation pump that relies on energy exchange with the rich glycol from the contactor is not considered a diaphragm pump.

The NSPS OOOOa supporting documentation discusses these pumps and refers to other EPA documents (i.e., Research and Development, Methane Emission from the Natural Gas Industry, Volume 13: Chemical Injection Pumps, Volume 15: Gas-Assisted Glycol Pumps) for descriptions of Pumps #2 and #3 discussed above. However, for further information on the first pump (i.e., Pump #1 above), EPA refers to a website called GlobalSpec (owned by Institute of Electrical and Electronics Engineers).

The Alliance believes it is inappropriate to use a private website to provide the definition for an affected facility since EPA has no control over the content of that website, and requests EPA to provide a more reliable definition and reference. When possible EPA should use naming conventions that are common to the industry.

The proposed definition of major production equipment is too expansive, pneumatic devices and pumps should not be included as major equipment. There should be at a minimum, separators, heater treaters, or storage tanks to qualify as production and processing equipment.

c.) Modifications

We support the changes made for what is considered a modification that requires LDAR. When a well is refracked, it almost always is accompanied by a change in equipment and the number of fugitive components. There could, however, be a refrack that is not accompanied by any change in equipment and in that case the fugitive emissions would not change according to EPA’s accepted way of calculating emissions. The accepted

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10 [60.5430a](https://e-CFResisviewer.cfr.gov/app/viewer.html#viewDocument=60.5430a,201812&sectionId=60.5430a&locale=en), e-CFR.gov, December 2018
11 [Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Background Technical Support Document (EPA-HQ-OAR-2010-0505-7631), May 2016](https://cfpub.epa.gov/CFR/query?c=CFR&q=60.5430a&d=201812&b=60.5430a)
practice of calculating fugitive emission from a facility is solely based on component counts and associated emission factors based on the type of fluid passing through. Throughput does not affect the calculations for facility fugitives. We request that an investment threshold be included to clarify when a capital expenditure qualifies as a modification.

4.) Other Issues

The original OOOOa proposal did not quantify VOC co-benefits due to data limitations, and the same reasoning is given in this proposal: “data limitations prevent the EPA from quantifying forgone VOC-related benefits.” Prudent rulemaking needs to properly account for both the costs and benefits of regulations, which includes emissions reductions of VOCs. The current proposal is focused on methane reductions while ignoring the VOC co-benefits that have a much larger impact on criteria air pollutants. We request that future revisions take the opposite approach and focus on VOC reductions while accounting for methane co-benefits.

The compliance and emissions data reporting interface (CEDRI) used for demonstrating compliance with recordkeeping provisions is a duplicative and burdensome process that needs streamlining. Loading all individual sites into CEDRI first in order to get facility IDs assigned, then re-entering the site information for use in the template is duplicative. We request that the template only include information that is required to be reported per the rule.

The Alliance appreciates the opportunity to comment on the revised OOOOa rule. We request that EPA adopt our proposed changes in order to better comply with Executive Order 13783.

Sincerely,

Kathleen M. Sgamma
President

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12 EPA Protocol for Equipment Leak Emission Estimates
13 RIN 2060-AT90 Regulatory Agenda