

Alaska Oil and Gas Association



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December 4, 2015

Environmental Protection Agency,
Attention Docket No. EPA-HQ-OAR-2010-0505
Mail code 28221T 1200
Pennsylvania Ave. NW.
Washington, DC 20460
Docket ID No. EPA-HQ-OAR-2015-0505-

Re: Comments on EPA's Proposed Rulemaking - Standards of Performance for New Stationary Sources: Oil and Natural Gas Production and Natural Gas Transmission and Distribution

Dear Sir/Madam:

The Alaska Oil and Gas Association (AOGA) appreciates the opportunity to submit comments in response to the EPA's proposal to revise the New Source Performance Standards (NSPS) 40 CFR part 60 Subpart OOOO and creation of 40 CFR Part 60 Subpart OOOOa. AOGA is a professional trade association whose members account for the majority of oil and gas exploration, development, production, transportation, and refining activities onshore and offshore in Alaska. AOGA and its members are longstanding supporters of environmentally responsible exploration and development. In accordance with those principles, AOGA submits this letter as both an offer of support to the American Petroleum Institute's (API) substantive comments and distinct comments that relate specifically to oil and gas operations in Alaska.

As an initial matter, AOGA is a consistent advocate for cost effective regulations that endeavor to reduce the impacts of oil and gas operations on ambient air quality. When evaluating any proposed regulatory program, AOGA's analysis focuses on the fundamental question of whether the proposed regulation is narrowly and appropriately tailored to a necessary goal. In addition to endorsing the broader issues articulated in the API comments, AOGA intends to highlight some Alaska-specific concerns related to: (1) definitional ambiguity; (2) de minimus fugitive emission threshold; (3) fugitive emission

repair requirements; and (4) well completion exemptions. In authoring any oil and gas related regulations, the EPA should account for the unique aspects of Alaska operations, particularly given the unique logistical and meteorological variables that are inescapable. The North Slope of Alaska is the area between the Brooks Range and the Arctic Ocean. It is entirely above the Arctic Circle and is located about 400 miles north of the closest major population center, Fairbanks. From a logistical standpoint, only one road connects the North Slope oil fields to population centers in the interior. Furthermore, many North Slope oil fields lack road access altogether, and, thus, the primary access for personnel is by air. These logistical realities are further complicated by frequent interruptions due to fog-grounded flights and road closures due to various weather-related complications, which can often last for weeks. As a result, operations must allow for an adaptive schedule to accommodate for these transportation interruptions and complications.

I. Compressor Station, Well Site, and Natural Gas Processing Plant Definitions

The unique structures and methodologies utilized for oil and gas production on Alaska's North Slope highlight potential flaws in the implementation of OOOOa provided the ambiguous definitions of both "well site" and "compressor station." Given the proposed definitions of those two terms, it is likely that there are many facilities in Alaska that could reasonably be captured by either definition, which surely runs contrary to the EPA's intent. As written there is no EPA provision that prohibits compressor stations from being defined as well sites, an issue discussed in more detail below.

Separation facilities in Alaska can operate as a gas gathering and boosting station, using compressors to move natural gas through gathering pipelines to a natural gas processing facility. As a result, such separation facilities meet Subpart OOOOa's definition of a "compressor station". However, these separation facilities also operate as tank batteries storing hydrocarbon and produced water liquids. Therefore, such separation facilities also meet Subpart OOOOa's definition of a "well site."

This dual-qualification of Alaska separation facilities is not without consequence. EPA expressly provides for the definition of "well site" to broadly include all ancillary equipment in the "immediate vicinity of the well" that are necessary for or used in production. As relevant to oil and gas operations on Alaska's North Slope, the ancillary equipment at the separation facility is customarily geographically removed from the well site, anywhere from one to twelve miles. This would not appear to meet the definition of "immediate vicinity" as it relates to a "well site."

AOGA contends that, for the purposes of the fugitive emission standards under §60.5397a, the definition of "well site" should not include tank batteries that collect oil or other hydrocarbon liquids, or produced water from wells not located on the same pad or site. AOGA encourages the EPA to consider defining "well site" as a site containing one or more oil wells, natural gas wells, or enhanced oil recovery injection wells, while also

providing that ancillary equipment only be considered as part of a “well site” if it is truly in the immediate vicinity of the well(s).

In addition, only sites with major equipment (such as compressors and storage vessels) should be subject. The proposed requirement to exempt sites with only wellheads is not adequate. §60.5365a(i)(2) exempts well sites that only contain one or more wellheads. AOGA believes an LDAR program at well sites with only wellheads and without process equipment is overly burdensome and has little benefit due to the small number of fugitive components and emissions.

Finally, under proposed Subpart OOOOa, a natural gas processing plant (gas plant) is defined as “any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. A Joule-Thompson valve, a dew point depression valve, or an isolated or standalone Joule-Thompson skid is not a natural gas processing plant”. EPA stated in the response to public comments addressing the original proposed Subpart OOOO that “the definition [of natural gas processing plant] was intended to exclude facilities that remove liquids from field gas by means other than a forced process (e.g., gravity or natural condensation)”. EPA also stated that a review of the GHG MRR definitions did not include this term, nor was the definition of a natural gas processing plant included. However, on December 23, 2011 EPA promulgated 40 CFR 98 Subpart W (GHG MRR), which included a revised definition of a natural gas processing to clarify that natural gas processing means “forced extraction”. Consistent with EPA’s response to public comments addressing proposed 40 CFR 60 Subpart OOOO and the definitions contained in 40 CFR 98 Subpart W, AOGA suggests the definition of a natural gas processing plant be revised to exclude facilities that remove liquids from field gas by means other than a forced process.

II. De Minimis Fugitive Emission Threshold

The definition of fugitive emissions in 60.5397a has too low of a threshold and includes de minimus fugitive emissions. For purposes of this section, fugitive emissions are defined as: any visible emission from a fugitive emission component observed using optical gas imaging (OGI). An OGI infrared camera will detect light hydrocarbon gases when there is a difference in temperature between the gas and the background. On the North Slope of Alaska in an enclosed module which is an atmospheric controlled environment, there is a greater ability for the OGI survey to detect fugitive emissions. An OGI survey conducted outdoors will be impacted by wind that will dissipate the accumulation of gas and reduce the detection capabilities. EPA should differentiate between de minimus “fugitive emissions” and “gas leaks,” especially if the OGI survey is conducted in an enclosed module or building.

III. Fugitive Emission Repair Requirements

AOGA believes that the proposed schedule for repair requirements relating to a source of fugitive emissions that is technically infeasible or unsafe to repair or replace during operation of the unit is unreasonable given the significant safety, integrity, and flaring consequences unique to oil and gas operations in Alaska. EPA's proposal mandates that the source of fugitive emissions shall be repaired or replaced during the next scheduled shutdown or within 6 months, whichever is earlier. Provided the geographic and seasonal realities of the Alaskan North Slope, oil and gas operators schedule large separation facilities shutdowns during the summer months. Given the litany of plausible scenarios that could result in a separation facility being required to shut down in order to fix a leak in late fall, winter, and early spring, AOGA is compelled to stress that such shutdowns will result in greater safety and integrity concerns. In addition, AOGA notes that the flaring of between 250,000 MMscf and 500,000 MMscf of gas during shutdowns may be an unintended and unavoidable consequence of the proposed rule. Simply stated, the emissions release associated with shutting down a production facility; shutting in and freeze protecting wells; and depressuring and purging the necessary equipment will result in far greater emissions than are being released from the leak that could be repaired during the next scheduled process shutdown. In addition to the increased safety concerns and counter-productive flaring, implementing the repair requirements as currently drafted will also result in severe economic repercussions. Every day of a non-summer shutdowns will result in millions of lost revenue for operators, which, in turn, will lead to substantial lost revenue for Alaska. It is not clear to AOGA whether the EPA accounted for the significant costs associated with this aspect of the proposed rule.

AOGA would advocate that the EPA include an exemption for North Slope operations, similar to such North Slope LDAR exemptions that the EPA has included in the past. For example, the EPA has included exemptions in: (1) NSPS Subpart GGG/GGGa: Standards of Performance for Equipment Leaks of VOC on Petroleum Refineries; (2) NSPS Subpart KKK: Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants; (3) NSPS Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution (exemption only for Natural Gas Processing Plants); and (4) MACT Subpart HH: National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities (exemption only for Natural Gas Processing Plants). The EPA has acknowledged the unique aspects of North Slope oil and gas operations in these prior exemptions, concluding that "that the costs to comply with the routine leak detection and repair requirements of the proposed standards may be unreasonable." In doing so, the EPA noted that North Slope operations "incur higher labor, administrative, and support costs associated with leak detection and repair programs because: (1) They are located at great distances from major population centers, (2) they must necessarily deal with the long-term, extremely low temperatures of the arctic, and consequently (3) they must provide extraordinary services for plant personnel. These unique aspects make the cost of routine leak detection and repair unreasonable"

One of our member companies currently spends approximately \$1MM annually on an LDAR program using OGI to identify de minimus fugitive emissions and gas leaks on the North Slope.

The annual cost of repairing the gas leaks (that are differentiated from fugitive emissions based on the Lower Explosion Limit) at one facility is an additional \$250,000. Based on the ambiguity of the definitions of “well site” and “compressor station” in the current rule, this company estimates the cost of the OGI survey requirements alone as a result of the rule could range from \$2MM - \$8MM annually.

Given that the realities of North Slope operations remain unchanged, it is reasonable for the EPA to follow the same reasonable and equitable approach that it has in past regulations.

IV. Verify Technically Infeasible Exemptions

The EPA concludes that “oil wells cannot perform a Reduced Emission Completion (REC) if there is not sufficient well pressure or gas content during the well completion to operate the surface equipment required for a REC.” In order to operate a two or three phase gas/liquid separator there must be both sufficient wellhead pressure and a sufficient quantity of gas in the flowback fluid. Lack of sufficient gas volumes results in the inability to operate a separator during flowback, which makes both a REC and combustion of emissions technically infeasible. To state this another way, if it is technically infeasible to use a separator, it is also technically infeasible to flare, because you cannot flare all the produced fluids. The regulation should not require operators to set up a separator on-site and attempt to utilize the separator when it is known that it will never be operated. This results in extraneous costs for no tangible emission reduction since there is insufficient gas to operate the separator. Therefore, there are several instances where EPA should provide exemptions for the proposed REC requirements.

AOGA believes that the EPA’s proposed regulations are flawed given an apparent assumption that reduced emission completions on oil wells are substantially similar to reduced emission completions on natural gas wells. This flaw is problematic for a number of reasons. First, it likely illustrates failings relating to any cost-benefit analysis the EPA might have undertaken. Intuitively, the price of natural gas dictates operational decisions on natural gas wells, while the price and volume of oil is the economic driver for oil wells. It is not clear to AOGA whether the EPA considered accurate and appropriate information regarding its evaluation supporting the cost-effectiveness of the proposed oil well reduced emission completion requirements. It is inarguable that the economics related to natural gas reduced emission completions are substantially different and fail to constitute sufficient support for mandating the proposed oil well reduced emission completion requirements.

Second, the more significant distinction relates to how the fundamental process of reduced emission completions differ, despite the EPA’s assumption to the contrary. Although there may be occasional instances of oil wells possessing relatively clear initial and separation flowback, it is possible that oil wells will lack a separation flowback stage given the lack of gas or quality of gas such that operation of a separator is not feasible. Quite simply, the EPA’s proposed regulations fail to account for the complexity of the

flowback process for oil wells. Generally speaking, flowback is routed to a separator almost immediately in order to route the gas to a secure location. Minimizing back-pressure on the well to ensure both maximum flow and cleanup is essential. Perhaps more so than with reduced emission completions on natural gas wells, the various stages of flowback on oil wells is difficult to clearly delineate and, as a result, a separator's optimal utilization is truly a function of engineering judgment. In practice, well-head pressure fluctuates greatly and unpredictably.

However, AOGA hopes that the EPA appreciates these issues and have provided the necessary flexibility with the inclusion of the "technically infeasible" exemption. As the EPA notes, "[t]here may be cases in which, for reason(s) not within an operator's control, the well is completed and flowback occurs without a suitable flow line available." The EPA appears to equate the lack of a gas flow line suitable for new production with technical infeasibility, and AOGA would encourage the EPA to be more emphatic with outlining this exemption so that it has the breadth and certainty to cover North Slope oil operations.

V. Conclusion

In addition to the concerns outlined above, AOGA also provides unequivocal support for API's comments, which provide thorough and persuasive support for its contentions and recommendations. In an effort to refrain from offering duplicative and redundant arguments, AOGA simply defers to the substantive positions and recommended modifications to the EPA's proposals outlined in the API comments.

Thank you again for the opportunity to comment and, should you have any questions, please contact Joshua Kindred at 907-222-9604 or kindred@aoga.org.

Sincerely,



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Alaska Oil & Gas Association