UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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REPLY TO THE ATTENTION OF

MEMORANDUM

SUBJECT: Final Agency Review Comments
Proposed Rule – Oil and Natural Gas Sector
Emission Standards for New, Reconstructed and Modified Sources Review
SAN 6616

FROM: Edward Nam
Director, Air and Radiation Division

TO: Wanda Farrar
OAR Regulatory Steering Committee Representative
Office of Air and Radiation

Region 5 has reviewed the Final Agency Review (FAR) package for the Notice of Proposed Rulemaking (NPRM) for the Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, SAN 6616, informally known as the NSPS Subpart OOOOa "Policy" package.

We are providing more detailed comments included as an attachment to this memorandum and acknowledge that Region 5's position will be recorded as Concurrence with Comment. We understand that portions of the draft proposal text may have changed since the draft was provided to workgroup members for review. Region 5's comments summarized in the attachment are based on the draft document "Oil and Natural Gas Sector Emission Standards for New Reconstructed and Modified Sources Review_02252019.docx" that was circulated for review on February 27, 2019.

Please note that for this rule, Regional and Office workgroup members were not included in the Early Guidance or Options Selection meetings as they are described in EPA's Action Development Process[1]. Therefore, this action proposes policy decisions that were made independent of Regional and Office workgroup members.

[1] "*EPA's Action Development Process: Guidance for EPA Staff on Developing Quality Actions*" Revised September 2015 http://intranet.epa.gov/adplibrary/documents/adp09-24-15.pdf

The proposal includes two main policy options: *Option 1*) revise the source category to remove transmission/storage from the source category and rescind methane standards from remaining emissions sources in the source category; or *Option 2*) maintain the source category but rescind the methane standards for all emissions sources. Region 5's review is limited to evaluating any technical assertions made in the proposal as they may relate to the rationale on which OAR relied to support either Option 1 or 2.

cc: William Wehrum, Assistant Administrator, OAR
Amy Hambrick, Workgroup Chair, OAQPS
Darryl Adams, RMD Desk Officer, OP
Sara Breneman, R5

Attachment

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Attachment

Region 5 Comments on SAN 6616, Oil and Natural Gas Sector: Emission Standards for New and Modified Sources Review

Option 1: Removal of Transmission and Storage from Source Category

Distinction Between Transmission and Storage and the Rest of the Source Category

In Section III.A.1, the proposal aims to make a distinction between the Transmission and Storage portion of the oil and gas sector and the production and processing portion. The proposal makes the following statements:

"The pipeline quality gas, which is comprised of 93 percent methane, does not undergo any more chemical change after processing is complete; instead, this final product leaves processing operations and is transmitted to storage and/or distribution to the end user."

- Factually, the gas never undergoes a chemical change throughout the entire process of production through processing and storage. The refinements to the gas are simply physical changes of separating the gas stream into its component parts or phase changes related to pressure of the gas.
- The proposal describes the lifecycle of the gas as a linear, step-wise process, beginning with production at the wellhead, separation at gas processing plants using a variety of techniques, and then transmission to the end-user or to storage facilities prior to transmission to the final end-user. The proposal characterizes the gas stream as becoming increasingly more refined (e.g. becoming lower in VOC) until the pipeline quality gas is 93% methane. This characterization of the life cycle and VOC/methane ratio is used to make the distinction between the Production and Processing portion of the sector, and the Transmission and Storage portion.
    - Region 5 emphasizes that this characterization depicts the system *on average*, but in reality there are wider and overlapping ranges of VOC/methane content in each portion of the sector. Also, VOC/methane content in pipeline gas is determined primarily by contract specifications set by the pipeline company, and is not automatically an inherent result of technical processes in the sector. Sometimes, gas in the Transmission and Storage portion of the sector may have higher VOC content than gas in the Production and Processing portion of the sector. Similarly, separation processes that are most frequently characterized as occurring in the Production and Processing portion may also be present in the Transmission and Storage portion. In short, the distinction between Transmission and Storage and the rest of the source category is not clearly defined by technical standards. This lack of a clear distinction may make justification of the excision of Transmission and Storage from the source category more difficult. If the excision of Transmission and Storage is finalized as proposed, this may cause confusion

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regarding applicability of specific sites that may appear to exist in the Transmission and Storage portion but share gas characteristics and processes more closely related to those in the traditional Production and Processing portion of the sector.

Options 1 & 2:

Rescission of methane requirements

The proposal's stated rationale for rescinding methane from the source category entirely is, in summary, "*...the EPA has reviewed the 2016 NSPS OOOOa with attention to whether the rule "unduly burden[s] the development of domestic energy resources beyond the degree necessary to protect the public interest...*" [p. 9]

In Sections IV and Section V., the proposal emphasizes the redundancy of methane requirements:

"From this review, the EPA has determined that the 2016 NSPS OOOOa imposes redundant requirements..."[p.37]

"The current NSPS requirements as applied to methane are redundant with the NSPS requirements as applied to VOCs. Indeed, for each emission source in the source category subject to the NSPS, the requirements overlap completely." [p.58]

"...rescinding the applicability of the NSPS requirements to methane emissions will have no impact on the amount of methane emissions." [p.58]

The proposal omits an explanation of how redundant requirements are burdensome to regulated entities, and instead states:

> *"...the EPA has to date assumed that methane, if subjected to a standard of performance for new sources, would trigger the application of section 111(d). Accordingly, given this assumption, the EPA recognizes that rescinding the applicability of the NSPS to methane emissions for the sources in the Crude Oil and Natural Gas Production source category that are currently covered by the NSPS will mean that existing sources of the same type in the source category will not be subject to regulation under CAA section 111(d). This is a legal consequence that results from the application of the section 111 requirements."* [p.64]

- Region 5 notes that without an explanation of how redundant requirements are burdensome, the resulting omission of the source category from CAA 111(d) requirements appears to be the driver of the proposed action, rather than a "legal consequence." Additionally, Region 5 notes that although existing sources may be eventually pulled into the new source category if the source does not shut down but rather

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makes modifications or reconstructs, CAA 111(d) intends for those sources to be regulated under existing source provisions for the source's remaining useful life. At this time, Region 5 believes that there is insufficient data to assess the rate at which existing sources are transitioning to new sources through modification.

- Specifically, the proposal states:

  "Storage Vessels. Production throughput at large condensate storage vessels without controls increased by 65% from 2011 to 2016. The growth is faster than the growth in production throughput of all types of condensate storage vessels, which was 31 percent. In general, if many storage vessels were undergoing modification, becoming subject to 2016 NSPS OOOOa and then installing controls, we would expect production throughput at large uncontrolled storage tanks to decline, with corresponding increases at controlled tanks." [p.69]

- Because increasing the throughput to tanks by connecting new wells or refracking a well does not affect the modification status of the storage vessel (*40 CFR § 60.5365(a)(3) - Except as provided in §60.5365a(i)(3)(iii), refracturing of a well, by itself, does not affect the modification status of other equipment, process units, storage vessels, compressors, pneumatic pumps, or pneumatic controllers*), this trend of increased throughput does not indicate that storage vessels are being modified (and therefore being brought under NSPS OOOOa).

Option 2:

Rescission of Methane from Transmission and Storage

- Optical gas imaging (OGI) cameras can "see" hydrocarbons, both VOC and methane. If sources in the Transmission and Storage portion of the oil and gas sector are using an OGI camera to conduct their fugitive emissions surveys, EPA may be faced with claims that the emissions seen are only methane (standards for which would have been rescinded). Region 5 has already encountered sources subject to the requirements of NSPS OOOO (VOC only) which have tried to claim this in defense of violating emissions. EPA inspectors have successfully countered this claim by simultaneously using a secondary instrument such as a PID or FID during inspections to confirm that the OGI imaged gas stream contains VOC. However, emissions points are not always safely or readily accessible with an instrument probe. Without a specific requirement to simultaneously monitor for VOC, sources will likely not do so. Further, the necessity of using a secondary method of verification negates the benefit of the option to conduct the fugitive emissions survey with only an OGI camera. At minimum, if methane is rescinded from this portion of the oil and gas sector, it should be clarified that emissions detected by OGI are presumed to contain VOC.

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Market Incentives:

Background information, in III.A.2 states: *"The industry has profit incentives to capture and sell emissions of natural gas (and methane)..."* [p. 18]

"...operators have market incentives to reduce emissions and the loss of valuable product to the atmosphere." [p.70]

- EPA has concluded several enforcement cases against both large operators (Noble, Slawson, PDC Energy) and small operators (Savoy Energy, West Bay Exploration) which address failures to control emissions of the company's product. EPA also has several enforcement cases in negotiation for the same issues. These enforcement actions have already demonstrated that profit incentives are not great enough to ensure that emissions of product will be adequately controlled. Region 5 is not aware of any evidence or indicators that future operations will be incentivized to reduce emissions based on profit.

Voluntary Programs

- Voluntary programs such as Natural Gas Star, Methane Challenge, Environmental Partnership and the Climate and Clean Air Coalition (CCAC) Oil & Gas Methane Partnership are important programs that highlight and publicize best practices in emissions reductions. However, participants in these programs are typically the best actors in the field, and voluntary programs do not provide any measure of guaranteed emissions reductions as would come with federally enforceable requirements.

State Programs

- State programs: EPA has acknowledged that *"multiple states have programs in place to control assorted emissions from the industry."* [p.18] The requirements of these state rules vary widely. Some states have developed these rules subsequent to EPA's NSPS OOOO and OOOOa rulemakings, and have strived to closely align their state rules with the NSPS or incorporate the NSPS by reference. If EPA makes changes to the NSPS, states may simply realign their rules to the NSPS. Therefore, similar to voluntary programs, these state requirements are not necessarily guaranteed to stay in place for future emissions reductions, and so it is important to have national, federally enforceable rules for consistency.

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