



TORABRIEF

**EPA'S AUGUST 2019 PROPOSAL
REMOVING METHANE & REDEFINING THE O&G SECTOR**

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EXECUTIVE SUMMARY

Last September, the EPA proposed major revisions to 40 CFR Part 60, Subpart OOOOa (NSPS OOOOa).¹ Most of the changes, if finalized, would result in a general “loosening” of the standard (e.g., semi-annual monitoring for compressor stations instead of quarterly). While the EPA is still working to finalize those changes, they are taking another approach to shakeup regulation of the oil and gas (O&G) industry under Section 111 of the Clean Air Act (CAA).

On 29 August 2019, the EPA proposed to: 1) Remove the transmission and storage (T&S) segment from the regulated source category, which would impact 40 CFR Part 60, Subpart OOOO (NSPS OOOO) and NSPS OOOOa and 2) Remove methane as a regulated pollutant under NSPS OOOOa. Under its alternative proposal, the EPA would remove methane as a regulated pollutant under NSPS OOOOa but retain the T&S segment within the regulated source category.

REMOVAL OF THE T&S SEGMENT

The CAA of 1970 required that the EPA publish a *list of categories of stationary sources that may contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare*.² The “Crude Oil and Natural Gas Production” source category was added to the “list” in 1979.³ Once a source category is listed, the CAA requires the EPA to propose and promulgate standards of performance for new, modified, and reconstructed affected facilities. In 1985, the EPA promulgated new source performance standards (NSPS) to address volatile organic compound (VOC) emissions from equipment leaks at onshore natural gas processing plants (40 CFR Part 60, Subpart KKK) and sulfur dioxide (SO₂) emissions from onshore natural gas processing plants (40 CFR Part 60, Subpart LLL).

In the 1984 preamble associated with the proposal for NSPS KKK, the source category was described as:

*The crude oil and natural gas production industry encompasses the operations of exploring for crude oil and natural gas products, drilling for these products, removing them from beneath the earth’s surface, and processing these products from oil and natural gas fields for distribution to petroleum refineries and gas pipelines.*⁴

Clearly, EPA did not initially intend for the “Crude Oil and Natural Gas Production” source category to extend past the processing plant. In 2012, when the EPA promulgated 40 CFR Part 60, Subpart OOOO (NSPS OOOO), it interpreted the listed

source category as being “sufficiently broad” so as to encompass “production, processing, transmission, storage and distribution”.⁵ Based on the historic record, this was an erroneous inference. To correct the misstep, the EPA formally broadened the category to include the T&S segment when it promulgated NSPS OOOOa in 2016.⁶ At that time, the EPA assigned the finding of “endangerment” from the 1979 source category listing to the expanded source category, a prerequisite for regulation under §111 of the CAA.⁷

In its August 29, 2019 proposal, EPA claims that the prior administration acted in error. Specifically:

- 1) The listed source category was never “sufficiently broad” to cover the T&S segment.
- 2) The 2016 “endangerment” finding was for the expanded source category as a whole and was not specific to the T&S segment; therefore, the prerequisite for listing of the T&S segment under CAA §111(b)(1)(A) was never satisfied.

On this basis, under its primary proposal, the EPA is proposing to remove the T&S segment from the list of source categories subject to regulation under §111 of the CAA.

REMOVAL OF METHANE

The EPA is proposing to remove methane from NSPS OOOOa on the grounds that inclusion of methane in the rule is unnecessary. Reductions in methane are achieved through the VOC standards of NSPS OOOOa, regardless of whether or not methane is specifically regulated. While this may seem simple on the surface, it is only the outer layer of a very complex regulatory “onion”.

Peeling back all of the layers of the onion is well beyond the scope of this ToraBrief, as doing so would make this document anything but “brief”. It would suffice to say that at the core of EPA’s removal of methane appears to be the goal of preempting any future regulation of methane emissions from the source category under §111(d), the section of the CAA that requires EPA to develop standards of performance for existing sources within the listed source category. This objective is camouflaged in the proposal by dense legal-speak in which EPA explores every potential rabbit-hole down which various interpretations of §111(b)(1)(A) might lead. In the end, the very few firm positions taken by the EPA are overwhelmed by the number of questions and requests for comments. An extensive analysis of legislative history, past positions, and case law ends with a simple shoulder shrug.

¹ Refer to the ToraBrief dated 19 September 2018 for additional information. <https://www.toraconsulting.com/torabrief>.

² CAA §111(b)(1)(A), 1970.

³ 44 FR 49222, August 21, 1979.

⁴ 49 FR 2637.

⁵ 76 FR 52738.

⁶ 81 FR 35840.

⁷ 81 FR 35833.



MAJOR IMPLICATIONS OF THE CO-PROPOSAL

The primary proposal would remove the T&S segment from the source category in both NSPS OOOO and NSPS OOOOa and remove methane from NSPS OOOOa. The alternative proposal would simply remove methane from NSPS OOOOa, keeping the T&S segment a part of the regulated source category under both the NSPS OOOO and NSPS OOOOa.

Impacts of the primary proposal on NSPS OOOO would be limited to those associated with regulation of storage vessel affected facilities. Currently, storage vessels located throughout the O&G industry (including the T&S segment) may be considered affected facilities under NSPS OOOO. With the removal of the T&S segment, storage vessel affected facilities would be limited to those located between the wellhead and point of custody transfer to the T&S segment. Removal of methane under the primary and alternative proposals would not impact NSPS OOOO since it does not regulate methane.

The implications of the primary and alternative proposals on NSPS OOOOa are summarized in Table A.

OTHER CONSIDERATIONS

The proposal was published as a “co-proposal”, the assumption being that one of two options will prevail. However, based on the level of uncertainty in EPA’s analysis evidenced by the number of solicitations for comment, it would be surprising if the final rule remotely resembles the proposal. Some notable solicitations for comment include:

- Differentiation between a traditional natural gas processing plant and a plant with similar operations (e.g., removal of natural gas liquids) within the T&S segment (e.g., a dew point plant or “straddle plant”).
- Whether the EPA is required to make a methane-specific significant contribution finding as a prerequisite for promulgating a NSPS for that pollutant under §111(b)(1)(A) of the CAA.
- The “turnover rate” of high-bleed pneumatic controllers.
- The “turnover rate” of wet seal centrifugal compressors (i.e., the number of wet seals converted to, or replaced with, dry seals).

CONCLUSION

Tora Consulting, LLC (Tora) is an environmental consulting firm that specializes in air quality issues impacting the oil and gas industry. Through our industry-leading expertise, we provide our clients with strategic environmental and engineering advisory services that add value to all aspects of their business. Tora professionals closely follow regulatory activity at the state and federal levels so that we can advise our clients on key issues that may impact their operations. This

ToraBrief contains notes from our ongoing analysis of EPA’s proposed revision to NSPS OOOO and NSPS OOOOa. We encourage readers of this document to closely review the proposed rule to determine how it may impact their operations.

If you have any questions regarding the proposed rule, we would love to hear from you. Contact Brandon Mogan at Bmogan@toraconsulting or by phone at (803) 422-5251. You can visit our website at www.toraconsulting.com.

Tora Highlights From 2019

- Tora was the first to negotiate approval for the use of the alternative work practice (optical gas imaging camera) in lieu of Method 21 for a new source review (NSR) leak detection and repair program in Texas. The result is significant cost savings, better emission reductions, and reduced time on site.
- We completed a study of wet- and dry-seal centrifugal compressor emissions which indicates that, as whole (all makes/models used in the O&G industry), wet seal centrifugal compressor emissions may actually be lower than dry seal units.
- **Our value-added project solutions resulted in recurring annual cost savings in excess of three (3) times our (one-time) fees.**

Table A: Implications of Proposed Changes to NSPS OOOOa (Primary Proposal – Removing T&S and Methane)

Affected Sources	Current Scope	Proposed Changes
Well Affected Facility	Each well affected facility, which is a single natural gas well that conducts a well completion operation following hydraulic fracturing or refracturing.	No change in scope of well affected facility by the removal of T&S segment.
Centrifugal Compressor Affected Facility	Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.	Wet-seal centrifugal compressors in the T&S segment would cease to be centrifugal compressor affected facilities under the proposed regulations. In effect, the scope of NSPS OOOOa would revert to the scope of NSPS OOOO for centrifugal compressor affected facility.
Reciprocating Compressor Affected Facility	Each reciprocating compressor affected facility, which is a single reciprocating compressor. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.	Reciprocating compressors in the T&S segment would cease to be reciprocating compressor affected facilities under the proposed regulations. In effect, the scope of NSPS OOOOa would revert to the scope of NSPS OOOO for reciprocating compressor affected facility.
Pneumatic Controller Affected Facility	(1) Each pneumatic controller affected facility not located at a natural gas processing plant, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh. (2) Each pneumatic controller affected facility located at a natural gas processing plant, which is a single continuous bleed natural gas-driven pneumatic controller.	The continuous bleed natural gas-drive pneumatic controllers throughout the T&S segment (at compressor stations, metering and regulating stations, etc.) would no longer be considered affected facilities under NSPS OOOOa.
Storage Vessel Affected Facility	Each storage vessel affected facility, which is a single storage vessel with the potential for VOC emissions equal to or greater than 6 tpy as determined according to NSPS OOOOa.	Storage vessels in the T&S segment would cease to be storage vessel affected facilities under the proposed regulations, irrespective of their potential for VOC emissions.
Collection of Fugitive Emission Components at Onshore Natural Gas Processing Plants as Affected Facility	The group of all equipment within a process unit, associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit, located at an onshore natural gas processing plant, is an affected facility. Equipment not located at the onshore natural gas processing plant site are exempt from the provisions of NSPS OOOOa.	No change.
Sweetening Unit Affected Facility	Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells. - Each sweetening unit that processes natural gas is an affected facility; and - Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.	No change. Sweetening units located in T&S segment (if any) are not regulated under NSPS OOOOa to begin with.
Pneumatic Pump Affected Facility	Each pneumatic pump affected facility: (1) For natural gas processing plants, each pneumatic pump affected facility, which is a single natural gas-driven diaphragm pump. (2) For well sites, each pneumatic pump affected facility, which is a single natural gas-driven diaphragm pump.	No change. Pneumatic pumps located in T&S segment are not regulated under NSPS OOOOa to begin with.

Collection of Fugitive Emissions Components at a Well Site as Affected Facility.	The collection of fugitive emissions components at a well site, as defined in § 60.5430a, is an affected facility.	No change.
Collection of Fugitive Emissions Components at a Compressor Station as Affected Facility.	The collection of fugitive emissions components at a compressor station, as defined in § 60.5430a, is an affected facility. Per § 60.5430a, a Compressor Station means any permanent combination of one or more compressors that move natural gas at increased pressure through gathering or transmission pipelines, or into or out of storage. This includes, but is not limited to, gathering and boosting stations and transmission compressor stations. The combination of one or more compressors located at a well site, or located at an onshore natural gas processing plant, is not a compressor station for purposes of regulation under this section of NSPS OOOOa.	The “collection of fugitive emissions components at a compressor station” that is located in the T&S segment would cease to be an affected facility under NSPS OOOOa.

Please note that the EPA’s ‘alternative proposal’ to rescind the methane standards would possibly not result in any changes to the scope of affected facilities under NSPS OOOOa. This is one of the principal arguments that the EPA has made in the above-mentioned proposal, in favor of removing the methane standards.

The EPA has stated that the rescission of the Methane Requirements of NSPS OOOOa applicable to sources within the production and processing segments stands to reason because the methane standards are entirely redundant of the existing NSPS for VOC. Requirements under methane standards provide no additional health protections and are unnecessary. The EPA further comments that methane and VOC have identical emissions profiles and source control technologies, making any additional regulations on methane superfluous.