

Technical Bulletin

Summary of Proposed Oil and Gas NSPS

On September 18, 2015, the U.S. Environmental Protection Agency (EPA) promulgated an amended Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (NSPS) under 80 Federal Register (FR) 56593. Specifically, EPA proposed amendments to 40 Code of Federal Regulations (CFR) Part 60, Subpart OOOO and proposed an entirely new Subpart OOOOa.

In addition, on September 18, EPA also promulgated a draft control technique guidelines (CTGs) document for the oil and natural gas industry. The CTG is intended to provide state, local and tribal air agencies with information to assist them in determining reasonably available control technology (RACT) for reducing volatile organic compounds (VOC) emissions from select oil and natural gas industry emission sources in ozone nonattainment areas.

The NSPS Subpart OOOO proposal includes “implementation improvements” including:

- Expanded storage vessel control device monitoring and testing provisions; and
- Clarification that flare design and operation standards must meet §60.18.

The new Subpart OOOOa does the following:

- Addresses new sources constructed, reconstructed, or modified after September 18, 2015. Also note that proposed changes to Subpart OOOO would clarify that it no longer applies after this proposal date.
- Includes requirements covering both VOCs and methane. Justification for methane regulation is based on EPA’s previous endangerment finding for greenhouse gases (GHGs).
- Expands applicability for source categories covered beyond the existing Subpart OOOO, most notably for Natural Gas Compressor Stations.

- Addresses emission sources not covered by NSPS Subpart OOOO, including:
 - Hydraulically fractured oil wells.
 - Fugitive emissions from well sites and compressor stations.
 - Reciprocating and centrifugal compressors at transmission and storage facilities.
 - Pneumatic pumps.
- Adds expanded testing and monitoring requirements for storage vessel combustion devices.

The draft CTG:

- Applies to existing sources in ozone nonattainment areas (moderate or higher and ozone transport region).
- Addresses:
 - Storage Vessels.
 - Compressors.
 - Pneumatic Controllers.
 - Pneumatic Pumps.
 - Equipment Leaks from Gas Processing Plants.
 - Fugitive Emissions from Well Sites and Compressor Stations.
- Includes model rule language. For the most part, the recommended RACT levels of control and all requirements in the model rule mirror proposed NSPS Subpart OOOOa.

Comments on the proposal are due November 17, 2015, and the final rules are slated to be promulgated in June 2016. Additional rule details are provided in the table below.

For copy of the rule and related documents:

<http://www3.epa.gov/airquality/oilandgas/>

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Summary of Proposed NSPS Subpart OOOOa Requirements and Draft CTG Recommendations in Relation to Existing NSPS Subpart OOOO		
Emission Source	Summary of Proposed NSPS Subpart OOOOa Requirements	Draft CTG Requirements
Completions from Hydraulically Fractured Wells	Same as existing Subpart OOOO, except it also applies to oil wells. Exempts oil wells with gas to oil ratio (GOR) of less than 300 standard cubic feet (scf) of gas per barrel of oil produced. Applies to emissions of VOC and methane.	N/A
Compressors	Same as existing Subpart OOOO, except it also applies to new transmission compressor stations downstream of gas processing plants. Applies to emissions of VOC and methane.	Same as existing Subpart OOOO, except applies only to VOC emissions. Unlike proposed Subpart OOOOa, CTG does not apply to transmission compressor stations.
Pneumatic Controllers	Same as existing Subpart OOOO, except it also applies to new transmission compressor stations downstream of gas processing plants. Applies to emissions of VOC and methane.	Same as existing Subpart OOOO, except applies only to VOC emissions. Unlike proposed Subpart OOOOa, CTG does not apply to transmission compressor stations.
Pneumatic Pumps	At locations other than natural gas processing plants, VOC and methane emissions from new natural gas-driven chemical/ methanol pumps and diaphragm pumps must be reduced by 95 percent if a control device is already available on site. At natural gas processing plants, emissions from new natural gas-driven chemical/methanol pumps and diaphragm pumps must be zero.	Same as proposed Subpart OOOOa, except applies only to VOC emissions.
Fugitive emissions from well sites and compressor stations	At new well sites and compressor stations (which include the transmission and storage segment and the gathering and boosting segment), conduct fugitive emissions surveys (details below). Excludes well sites that contain only wellheads and low production well sites (a low production site is defined by the average combined oil and natural gas production for the wells at the site being less than 15 barrels of oil equivalent [boe] per day). Applies to VOC and methane.	Similar to proposed Subpart OOOOa, except applies only to VOC emissions. Unlike proposed Subpart OOOOa, CTG does not apply to the transmission and storage segments.

<p>Fugitive emissions from well sites and compressor stations (continued)</p>	<p>Conduct surveys semi-annually with optical gas imaging (OGI) technology and repair the sources of fugitive emissions within 15 days that are found during those surveys.</p> <ol style="list-style-type: none"> 1. Initial monitoring survey. 2. Monitoring frequency: Increased to quarterly if two consecutive semi-annual monitoring surveys detect fugitive emissions at greater than 3.0 percent of the fugitive emissions components. Can be decreased to annual in the event that two consecutive semi-annual surveys detect fugitive emissions at less than 1.0 percent of the fugitive emissions components. Shall return to semi-annual if a survey detects fugitive emissions between 1.0 percent and 3.0 percent of the fugitive emissions components. 3. Develop a corporate-wide fugitive emissions monitoring plan as well as a site-specific fugitive emissions monitoring plan specific to each well site and each compressor station. Alternatively, develop a site-specific plan for each well site and each compressor station that covers the elements of both the corporate-wide and site-specific plans. 4. Annual reports shall be submitted for each well site and each compressor station. <p>EPA is also co-proposing OGI monitoring surveys on an annual basis for new and modified well sites, and requesting comment on OGI monitoring surveys on a quarterly basis for both well sites and compressor stations.</p>	<p>Similar to proposed Subpart OOOOa, except applies only to VOC emissions</p> <p>Same as proposed Subpart OOOOa, except applies only to VOC emissions from existing sources.</p>
<p>Equipment leaks at natural gas processing plants</p>	<p>Same as existing Subpart OOOO, except applies to VOC and methane.</p>	<p>Same as existing Subpart OOOO, except applies only to VOC emissions from existing sources.</p>
<p>Storage vessels</p>	<p>6 ton per year (tpy) VOC applicability threshold (methane is not regulated for storage vessels). Requires 95% reduction or 600 parts per million by volume (ppmv) (instead of 20 ppmv in current Subpart OOOO)</p> <p>For enclosed combustors:</p> <ul style="list-style-type: none"> --Initial and ongoing (every 60 months) performance testing --Monthly monitoring of visible emissions. <p>For flares:</p> <ul style="list-style-type: none"> --Clarifies that flares are subject to the design and operation requirements in §60.18 of the 40 CFR Part 60 General Provisions. 	<p>Same as proposed Subpart OOOOa, except applies to existing sources.</p> <p>Also, Subpart OOOO (and proposed Subpart OOOOa) includes the compliance option of maintaining actual uncontrolled VOC emissions under 4 tpy. This option does not exist in the CTG.</p>