

New Source Performance Standard (NSPS) OOOOa

Dates

- **Applicability Date- 9/18/2015**
- Pre-publication of the final rule was released on May 12, 2016.
- Publication in the Federal Register is expected in 2-4 weeks.
- **Effective Date - ~August 2016** (60 days after publication in the Federal Register) (however more time is given to comply with the oil well completions, pneumatic pump, and LDAR requirements)

Summary of the Proposed Changes

- Expands the pollutants covered by NSPS OOOO to **cover methane** in addition to VOCs and SO₂.
 - By directly regulating methane under Clean Air Act Section 111(b) with a NSPS, the EPA has the authority to set performance standards for existing stationary sources because methane is not regulated under a National Ambient Air Quality Standard (NAAQS).
- These regulations apply to sources covered by the rule constructed, reconstructed, or modified after 9/18/2015 (see definitions below for construction, reconstruction & modification).
- The rule will **become effective 60 days after the final rule is published** in the Federal Register.
- It also expands applicability to Natural gas Compressor Stations in the Transmission and Storage sector up to the city gate.
- It continues to cover the following sources from the August 23, 2011 version of the rule:
 - **Flowback from completions of hydraulically fractured gas wells** - reduced emissions completions of hydraulic fractured and refactored gas wells,
 - **Centrifugal compressors** – 95% reduction of wet seal fluid degassing system emissions
 - **Reciprocating compressors** – Replacement of rod packing every 3 years
 - **High bleed pneumatic devices** – Replace with zero bleed pneumatic devices at natural gas processing plants and replace pneumatic controller not at a gas plant (i.e. at a well production site) with a pneumatic controller with a bleed rate of 6 scf/hr or less.
 - **Storage vessels** – For storage vessels with VOC emissions > 6 TPY, reduce VOC emissions by 95%.
 - **Leak detection and repair at gas plants**
 - **Sweetening units at gas plants**
- The rule has been expanded to add requirements for:
 - **Flowback from completions of hydraulically fractured oil wells**
 - Reduced emissions completions are required for oil wells that are >300 scf of gas per stock tank barrel of oil that are flowed back following hydraulic fracturing and refracturing 180 days after the rule is published in the Federal Register.
 - **Flowback from completions of hydraulically fractured gas and oil wells**
 - Added the requirement to have a **separator on-site** through the entire flowback unless the well produces no liquids 180 days after the rule is published in the federal register.
 - **Leak detection and repair (LDAR) for well sites and compressor stations**
 - LDAR is effective 1 year after the rule is published in the federal register.
 - Requires optical gas imaging to find leaks at all **well sites** (with more than just well heads) **semiannually** and all **compressor stations quarterly**.
 - A well site is modified and will require LDAR if a new well is drilled at an existing well site, a well at an existing well site is hydraulically fractured, or a well at an existing well site is hydraulically refractured.
 - Repairs of the leak must be made within **30 calendar days** after a leak is detected. Resurvey of the leak is required 30 days after the rule is published in the federal register.
 - An extensive monitoring plan is also required that can be for an arear defined by the company.
 - Extensive recordkeeping and reporting requirements for each inspection and leak found including photographs of the monitoring survey and photographs are tagging of leaks that are found.
 - EPA has included a process to apply for alternative LDAR programs to be used.
 - **Pneumatic pumps at natural gas processing plants** must have zero emissions (i.e. air-powered, electric, or solar).

- **Natural Gas Diaphragm Pneumatic Pumps at locations other than natural gas processing plants that operate more than 90 days/year**
 - Pneumatic pumps located at sites **with a control device must route the pump emissions to the control device.**
 - If there is not a control device on-site, **a control device does not have to be installed just for the pump.**
 - The closed vent system from the pump to the control device must be designed to have no detectable emissions.
 - The control device must be certified by a professional engineer to be of sufficient design and capacity to accommodate all the emissions.
 - Do an initial and annual visual and Method 21 inspection with an organic vapor analyzer of the closed vent system and make an initial repair attempt in 5 days and complete it no later than 15 days from the inspection and resurvey to confirm the repair.
 - Records of all pumps installed, reconstructed, or modified after September 18, 2015 with the date, location, and manufacturer specifications must be kept.
 - Records of the control device used, including installation date, manufacturer's specifications, and if the control device is designed to achieve less than 95% emission reduction, a design evaluation or manufacturer's specifications indicating the percentage reduction the control device is designed to achieve must be kept.
- **Storage Vessels:** EPA added requirements for an initial performance test and ongoing performance tests every 60 months for control devices (other than 40 CFR 60.18 compliant flares) that are not certified by the manufacturer and operated in accordance with the manufacturer requirements. EPA also added requirements for a PE certification of the closed vent system and control device design to be of sufficient design and capacity to accommodate all the emissions. Due to these new requirements, try to keep emissions permitted below 6 TPY.
- **Recordkeeping and Reporting:** There are extensive recordkeeping and reporting for each of the sources including an annual report with all deviations that must be signed and certified by a Responsible Official. In the near future the deviation report will be required to be submitted electronically and made publically available by EPA.

Copy of Final Rule Pre-Publication Version

<https://www3.epa.gov/airquality/oilandgas/actions.html>

<https://www3.epa.gov/airquality/oilandgas/may2016/nsps-finalrule.pdf>

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Definitions

- **Affected facility** means, with reference to a stationary source, any apparatus to which a standard is applicable. (40 CFR 60.2)
- **Construction** means fabrication, erection, or installation of an affected facility. (40 CFR 60.2)
- **Reconstruction** means the replacement of components of an existing facility to such an extent that:
 - The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
 - It is technologically and economically feasible to meet the applicable standards set forth in this part.
- **Fixed capital cost** means the capital needed to provide all the depreciable components. (40 CFR 60.15(c))
- **Modification** means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant emitted into the atmosphere by that facility or which results in the emission of any air pollutant into the atmosphere not previously emitted. (40 CFR 60.2)

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Source Determination for the Oil and Gas Sector

Dates

- Prepublication of the final rule was released on May 12, 2016
- Publication in the Federal Register is expected in 2-4 weeks.
- Effective Date - ~August 2016 (60 days after publication in the federal register)

Summary

- Clean Air Act (CAA) requires
 - Title V operating permit for a major “stationary source” with the potential to emit 100 tpy of any regulated pollutant.
 - Prevention of Significant Deterioration (PSD) permit prior to construction or modification of a major “stationary source” that emits 250 tpy of any regulated pollutant or 100 tpy if within one of the 28 list source categories
 - Nonattainment New Source Review (NNSR) permit prior to construction or modification of a major “stationary source” in areas that are in nonattainment with a National Ambient Air Quality (NAAQS)
 - For ozone nonattainment, there are lower VOC and NO_x emissions thresholds for major sources depending on the severity of the nonattainment area.
 - Marginal – 100 TPY
 - Moderate – 100 TPY
 - Serious – 50 TPY
 - Severe – 25 TPY
 - Extreme – 10 TPY
- Under Title V, a **major source** includes any stationary source or group of stationary sources located within a contiguous area and under common control (42 USC 7661a(a) and 42 USC 7661(2))
 - EPA further defines a major source for Title V as:
 - located on one or more continuous or **adjacent** properties
 - under common control of the same person (or persons under common control)
 - belonging to a single major industrial grouping (meaning the same major two-digit code in Standard Industrial Classification Manual, 1987)
 (“3 Factor Test”) (40 CFR 70.2 and 40 CFR 71.2)
- **“Stationary Source” is defined under PSD and NNSR** in the CAA as any building, structure, facility or installation (42 USC 7411(a)(3), 40 CFR 165(a)(1)(i), 40 CFR 51.166(b)(5), 40 CFR 52.21(b)(5))
 - EPA further defined “any building, structure, facility or installation” “as all pollutant-emitting activities which:
 - Belong to the same industrial grouping (meaning the same major two-digit code in Standard Industrial Classification Manual, 1972 as amended by the 1977 Supplement)
 - Are located on one or more contiguous or **adjacent** properties, and
 - Are under the control of the same person”
 (“3 Factor Test”) (40 CFR 165(a)(1)(ii), 40 CFR 51.166(b)(6), 40 CFR 52.21(b)(6), 40 CFR 70.2, 40 CFR 71.2)
- Once a source is major under PSD or NNSR,
 - An air permit is required prior to construction of a location
 - It could take 1-2 years to acquire the air permit, greatly slowing down new development of oil and gas wells.
 - There will be significant additional cost for a permit application
 - Additional compliance requirements and cost could be put on all the emissions sources beyond what is required under NSPS OOOO
- If a source is major under Title V,
 - An operating permit must be acquired that includes all the facility’s permit requirements and state and federal regulatory requirements.
 - The site must submit **semiannual deviations reports** to the state outlining any time we deviated from the permit or regulatory requirements; these reports must be signed/certified by a responsible official.
- EPA added to the Title V, PSD, and NNSR major source definition for SIC Major Group 13: Oil and Gas Extraction that **“Pollutant emitting activities shall be considered adjacent if they are located on the same surface site; or if they are located on surface sites that are located within ¼ mile of one another (measured from the center of the equipment on the surface site) and they share equipment. Shared equipment includes, but is not limited**

to, produced fluids storage tanks, phase separators, natural gas dehydrators or emissions control devices. Surface site, as used in this paragraph, has the same meaning as in 40 CFR 63.761."

- The definition of "surface site" in 40 CFR 63.761 is "any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed"
- EPA has adopted this definition of "adjacent", but **states are not required to adopt this approach.**
- The rule only applies on permits issued 60 days after the rule is published in the Federal Register.
- This definition of "adjacent" for oil and gas basically deters companies from installing centralized facilities.
- Two well sites that feed a common pipeline would not be considered a single source if they do not share processing equipment.

Copy of Final Rule Pre-Publication Version

<https://www3.epa.gov/airquality/oilandgas/actions.html>

<https://www3.epa.gov/airquality/oilandgas/may2016/source-determination-finalrule.pdf>

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Federal Implementation Plan for Managing Air Emissions from True Minor Sources Engaged in Oil and Natural Gas Production in Indian Country

Dates

- Prepublication of the final rule was released on May 12, 2016
- Publication in the Federal Register is expected in 2-4 weeks.
- Effective - ~August 2016 (60 days after publication in the federal register)

Summary

- In lieu of complying with the preconstruction permitting requirements for true minor oil and natural gas production and processing facilities that are located in Indian Country that have no EPA-approved program in place administered by the Indian Tribe, EPA has finalized a **preconstruction registration** process for locations **constructed or modified on or after 10/3/2016** that are **not located in a designated nonattainment area**.
- Submit documentation demonstrating screening procedures were completed for **compliance with the Endangered Species Act (ESA) and National Historic Preservation Act (NHPA)** if not already completed by another federal agency. **Allow 30 days to receive written confirmation** from EPA stating screening procedures were satisfactorily completed **before submitting Registration Form Part 1**. The **Registration Form Part 1** must be submitted **30 days prior to beginning construction or modification** that includes:
 - A narrative description of operations
 - Identification and descriptions of emission units, pollution control equipment, and monitoring
 - Estimated operating schedule
 - Documentation demonstrating compliance with the ESA and NHPA has been completed by another federal agency or written confirmation from EPA stating satisfactory completion of screening procedures.
- The **Registration Form Part 2** must be submitted **60 days after the startup of production** that includes:
 - Actual, annual fuel use
 - Type of raw materials used
 - Actual, annual production rates
 - Actual operating schedule
 - Limitations on source operations affecting emissions
 - Estimates of total allowable and actual annual emissions
- The oil and natural gas facility must comply with all the applicable requirements of:
 - New Source Performance Standard (NSPS) Kb
 - NSPS IIII
 - NSPS JJJJ
 - NSPS OOOOa
 - National Emission Standard for Hazardous Air Pollutants (NESHAP) HH
 - NESHAP ZZZZ
 - NESHAP KKKK
 - NESHAP DDDDD

Copy of Proposal

<https://www.epa.gov/tribal-air/final-federal-implementation-plan-oil-and-natural-gas-true-minor-sources-and-amendments>

<https://www3.epa.gov/airquality/oilandgas/may2016/fip-final-rule.pdf>

Impact to L48

- **West BU** – The required registration forms would be required to be submitted 30 days prior to construction and 60 days after startup for any new construction or modification on Indian Country which includes the Navajo and Southern Ute tribes land on or after 10/3/2016. The BU will need to work closely with the RC&E team to ensure the required registration is completed and submitted on time 30-days before construction or modification commences and 60 days after startup. Further communications and implementation assistance will be provided to the West BU through Julie Best, Rebecca Robert, and Dana Wood.
- **Mid-Continent** – L48 has mineral rights on some Indian allotments; however, Oklahoma filed a lawsuit against EPA and won authority over all the allotment lands in Oklahoma; therefore, **this rule would not apply to the Oklahoma allotment lands**.

Definitions:

- The NSR Regulations (40 CFR 49.152) define “**Indian country**” as follows:
 - All land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent and including rights-of-way running through the reservation;
 - All **dependent Indian communities** within the borders of the United States whether within the original or subsequently acquired territory thereof and whether within or without the limits of a state; and
 - All Indian **allotments**, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- A true minor source must have not exceed the following emissions thresholds:

• Pollutant	• Minor Source NSR threshold for attainment areas (TPY)
• Carbon Monoxide (CO)	• 10
• Nitrogen Oxides (NO _x)	• 10
• Sulfur Dioxide (SO ₂)	• 10
• Volatile Organic Compounds (VOC)	• 5
• Particulate Matter (PM)	• 10
• PM ₁₀	• 5
• PM _{2.5}	• 3
• Lead	• 0.1
• Fluorides	• 1
• Sulfuric Acid Mist	• 2
• Hydrogen Sulfide (H ₂ S)	• 2
• Total Reduced Sulfur (including H ₂ S)	• 2
• Reduced Sulfur Compounds (including H ₂ S)	• 2

- **Modification** - any physical or operational change at a source that would cause an increase in the allowable emissions of a minor source or an increase in the actual emissions of a major source for any regulated NSR pollutant or that would cause the emission of any regulated NSR pollutant not previously emitted. Does not apply to:
 - Routine maintenance, repair, or replacement
 - Increase in hours of operation or in production rate unless prohibited by a permit condition
 - Change in ownership
 - Emissions units and activities listed in 40 CFR 49.153(c)

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