

EPA's Final Rule to Reduce Methane and Other Harmful Pollution from Oil and Natural Gas Operations

Tribes & Tribal Environmental Professionals

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Oil and Natural Gas Air Standards Home Basic Information Actions and Notices Implementation

EPA's Final Rule for Oil and Natural Gas Operations Will Sharply Reduce Methane and Other Harmful Pollution.

December 2, 2023 -- EPA has issued a final rule that will sharply reduce emissions of methane and other harmful air pollution from oil and natural gas operations — including, for the first time, from existing sources nationwide. The final action includes New Source Performance Standards to reduce methane and smog-forming volatile organic compounds from new, modified and reconstructed sources. It also includes Emissions Guidelines, which set procedures for states to follow as they develop plans to limit methane from existing sources. Oil and natural gas operations are the largest industrial source of methane pollution in the U.S.

Methane is a climate "super pollutant" that is more potent than carbon dioxide and is responsible for approximately one third of current warming resulting from human activities. Rapid, sharp cuts in methane can generate near-immediate climate benefits and are a crucial addition to cutting carbon dioxide in slowing the rate of warming of Earth's atmosphere.

Go to:

https://www.epa.gov/controlling-airpollution-oil-and-natural-gasoperations/epas-final-rule-oil-and-naturalgas

Regulatory Documents

- Final Rule and Regulatory Text (pdf) (5.9 MB)
- Regulatory Impact Analysis (pdf) (3.3 MB)
- o Supplementary Material for the Pegulatory Impact Analysis: Penort on the Social Cost

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- Final Rule and Regulatory Text (pdf) (5.9 MB)
- Regulatory Impact Analysis (pdf) (3.3 MB)
 - Supplementary Material for the Regulatory Impact Analysis: Report on the Social Cost of Greenhouse Gases (pdf) (8.8 MB)

Note: EPA reposted this file on 12/5/23 to correct bookmark errors.

o Additional Information on the Social Cost of Greenhouse Gases Report

Fact Sheets

- <u>Key Things to Know About EPA's Final Rule for Oil and Natural Gas Operations (pdf)</u> (184.1 KB)
 - La EPA publica una norma final para reducir el metano y otros agentes contaminantes de las operaciones de petróleo y gas natural (pdf) (173.3 KB)
- EPA's Final Rule for Oil and Natural Gas Operations: Overview (pdf) (183.7 KB)
 - <u>Cuestiones importantes a saber sobre la norma final de la EPA para reducir el metano</u>
 y otros agentes contaminantes de las operaciones de petróleo y gas natural (pdf) (184.7
 KB)
- <u>Technical Fact Sheet: Appendix K: Requirements for Using Optical Gas Imaging, Applied to Natural Gas Processing Plants (pdf)</u> (180.9 KB)

Tables

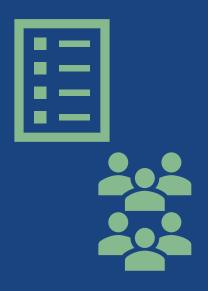
- Table of Covered Sources by Site: EPA's 2012, 2016 and 2023 Rules (pdf) (227.7 KB)
- Summary of Requirements: Final New Source Performance Standards and Emissions Guidelines (pdf) (248.2 KB)

Presentation

• EPA's Final Rule for Oil and Natural Gas Operations (pdf) (370.5 KB)



Tribal Consultation Process During Rulemaking



During the development of this rulemaking, EPA determined that there would be tribal implications associated with this rulemaking

- 112 unique tribal lands are located within 50 miles of an affected oil and natural gas source
- 32 tribes have one or more oil or natural gas sources on their lands
- While many of the affected and designated facilities on Tribal lands are owned by private entities, some Tribes also own affected and or designated facilities

Tribal Consultations were held after both the 2021 proposal and the 2022 supplemental proposal

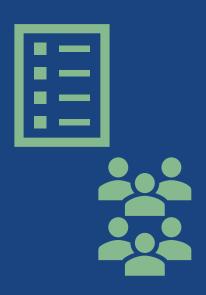
- EPA sent letters to all 574 Federal Recognized Tribes inviting Tribes to participate in Tribal Consultation
- 2021: Tribal Consultations were completed at the request of Northern Arapahoe Tribe, MHA Nation, and Eastern Shoshone Tribe
- 2022: Tribal Consultations were completed at the request of MHA Nation and an informational meeting was held with the Ute Tribe

Snapshot of Some Tribal Technical Comments



Tribal Technical Comments	Final Rule
Marginal wells should be included in regular fugitives monitoring as well as all wells with equipment known to malfunctions (e.g. tanks, flare)	All wells are required to be monitored until documented well closure
Support of monitoring for all sites until well closure	
Support to transition to zero emissions for process controllers and pumps	 EPA finalized zero emission standards for process controllers and pumps. Some exceptions apply to process controllers in Alaska
Support for the super-emitter program; ask that Tribes be notified directly of event; public accessibility of information Concern about unauthorized access to Tribal lands	 Finalized the super emitter program defining a super-emitter event which represents an emission that is >100 kg/hr EPA will provide a strong oversight role and ensure the program operates with a high degree of integrity. Transpagators are and accounts hilitated.
	integrity, transparency, and accountability
Minimize flaring, and specifically flaring of associated gas from oil wells prioritizing the option to route gas for beneficial use	 Owners/operators are required to perform periodic OGI monitoring of control devices (flares) for additional compliance assurance Rule eventually prohibits routine flaring of associated gas from new wells; existing wells with associated gas over 40 tpy methane must route to sales, onsite fuel use, other useful purpose, or flare if other options are not technically feasible

Snapshot of Some Tribal Technical Comments



Tribal Technical Comments	Final Rule
Some supported the storage tanks threshold as proposed, some supported a lower threshold	 Finalized storage vessel standards of 95% reduction for single storage vessels or tank battery with potential to emit (PTE) of 6 tpy or more of VOC or PTE of 20 tpy or more of methane
Support standards for dry seal centrifugal compressors	 EPA finalized work practice standards for dry seal centrifugal compressors to monitor and repair of seal to maintain volumetric flow rate at or below 10 scfm per compressor seal
EPA should consider a timely Federal Plan to provide Tribes with regulatory certainty	 EPA is obligated to develop a federal plan for any area without a Tribal or state plan
Request for EPA to share cost of compliance of rules	 This information is provided in the final Technical Support Document and the final Regulatory Impact Analysis
EPA should recognize challenges faced by small Tribal operators	 The final regulatory flexibility analysis examined the impact of NSPS OOOOb on small entities and described regulatory alternatives EPA examined and finalized

Addressing Tribal Communities' Concerns from Comments



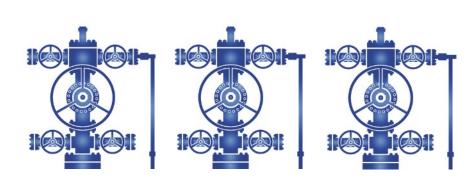
The EPA believes that the suite of regulatory protections established in this rule, and the resulting reductions in harmful air pollution from new and existing oil and gas sources, will have a range of significant benefits for Tribal communities

Tribal Community Comments		Final Rule
Health effects (e.g. asthma, reduction of hospital visits, etc.) of air pollution associated with oil and gas facilities	•	This rule will reduce an estimated 590,000 tons of hazardous air pollutants from the air, thus mitigating potential adverse health effects associated with hazardous air pollutants
The implications of climate change and associated extreme weather events for health and well-being in overburdened and vulnerable communities	•	Methane is a "super-pollutant" and is roughly 25 times more potent than CO ₂ . The rule estimates that 58 million tons of methane (equivalent to 1.5 billion tons of CO ₂) will be reduced from oil and natural gas facilities and therefore is estimated to reduce the implications of extreme weather events driven by climate change
Accessibility to data and information regarding sources near Tribal communities	•	The Super-Emitter program leverages 3 rd party expertise to find large leaks and releases from oil and natural gas sources. The data the EPA receives from 3 rd parties will be made publicly available on EPA's website



NSPS 0000b & EG 0000c Standards: Affected & designated facilities with Alaska-specific provisions/exemptions





OOOOb & OOOOc: Fugitive Emissions



Affected Source/ Designated Facility	Final Best System of Emissions Reduction (BSER)	Emissions Standard/ Presumptive Standard
Well Sites and Compressor Stations on Alaska North Slope	Monitoring and repair based on annual monitoring using OGI.	Annual OGI monitoring. (Optional annual EPA Method 21 monitoring with 500 ppm defined as a leak).
		First attempt at repair within 30 days after detecting fugitive emissions. Final repair within 30 days after first attempt.

0000b & 0000c:

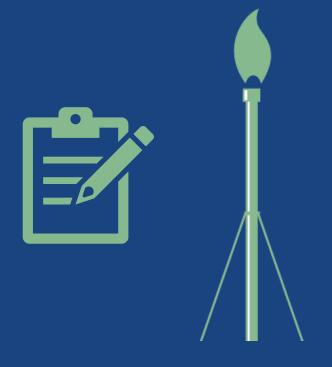
Summary of Process Controllers Emissions



Location of Site	Site Has Access to Electrical Power	Emission Standard/ Presumptive Standard	Emissions Standard Compliance Method
Outside Alaska	Yes or No	Zero GHG and VOC emissions	Use process controllers not driven by natural gas, Or Route natural gas-driven process controller emissions through a closed vent system to a process, Or Use self-contained natural gas-driven process controllers, Or Other means to achieve zero-emissions standard
In Alaska	Yes Zero GHG and VOC emissions		Use process controllers not driven by natural gas, Or Route natural gas-driven process controller emissions through a closed vent system to a process, Or Use self-contained natural gas-driven process controllers, Or Other means to achieve zero-emissions standard
In Alaska	No	95 percent emissions control Or Emissions achieved by use of low- emitting controllers	Route natural gas-driven process controller emissions through a closed vent system to a control device that reduces emissions by ≥ 95 percent, Or Use low-bleed or intermittent vent natural gas-driven process controllers with monitoring for intermittent process controllers

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OOOOb & OOOOc: Summary of Process Controller Inspection and Monitoring Requirements



Equipment Type	Monitoring Requirement	Monitoring Frequency
Natural gas-driven self- contained controllers	 Use OGI or EPA Method 21 to demonstrate no identifiable emissions from the process controller 	Initially and quarterly
Natural gas-driven intermittent vent controllers (Alaska-only sites without electrical power)	 Use OGI or EPA Method 21 to demonstrate no identifiable emissions occur during idle periods 	Initially and quarterly
Closed vent system on a natural gas-driven process controller	 Use OGI or EPA Method 21 to demonstrate no identifiable emissions from the closed vent system AVO monitoring Inspection for defects that could result in air emissions 	Initially and quarterlyInitially and bi-monthlyAnnually
Control device for a natural gas-driven process controller (Alaska-only sites without electrical power)	 Parameter monitoring Visible emissions inspections for enclosed combustion devices and flares Surveillance camera monitoring 	ContinuouslyMonthlyContinuously

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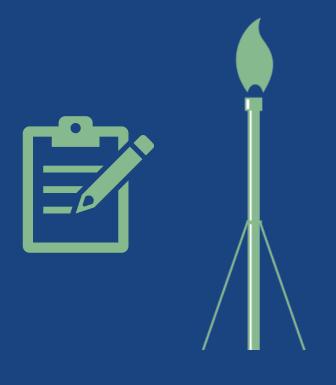
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OOOOb & OOOOc: Wet Seal Centrifugal Compressors



Affected Source/ Designated Facility	Final Best System of Emissions Reduction (BSER)	Emission Standard/ Presumptive Standard
Wet Seal Centrifugal	(Optional) Monitoring	Monitoring and repair
Compressors (except	and repair to maintain	to maintain volumetric
for those located at	volumetric flow rate at	flow rate at or below 9
well sites): Alaska	or below 9 scfm.	scfm per compressor
North Slope centrifugal		seal.
compressors equipped		
with a seal oil recovery		
system.		

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Basic Mechanics of OOOOc Implementation (Emission Guidelines)





40 CFR Part 60 Subpart OOOOc Emissions Guidelines (EG):



In accordance with CAA section 111(d) and subpart Ba, OOOOc establishes EG and compliance schedules for the control of greenhouse gas (GHG) emissions from designated facilities in the crude oil and natural gas source category

- States must submit a state plan that implements the EG, or submit a letter of negative declaration if there are no designated facilities in state
- Federally recognized Tribes have the opportunity, but not the obligation, to develop their own plans
- Electronic submission for plans according to subpart Ba
- Plan submittal deadline: 24 months after publication of the EG

Is my state or
Tribe required
to engage with
me as they
develop their
plan?





States and Tribes can choose to leverage aspects of their existing programs for purposes of their plan submission

For a state or Tribal plan to be approved, the plan must include certain elements such as:

- Documentation of meaningful engagement as required by the Implementing Regulations (published November 17, 2023)
- Certification that a public hearing on the state or Tribal plan was held

Note: EPA is obligated to issue a federal plan that meets these same engagement requirements if an approvable state plan is not submitted

Emissions Guidelines: States and Tribes May Apply a Less Stringent Standard Taking Into Consideration Remaining Useful Life and Other Factors (RULOF)

A plan may apply a standard of performance to a designated facility that is less stringent than otherwise required by the EG, provided requirements specified in Subpart Ba are met

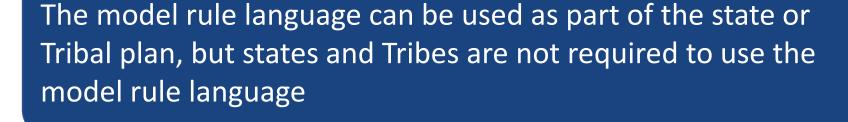
OOOOc (EG) Does Not Directly Regulate Designated Facilities



Designated facility owners and operators must comply with their state, Tribal, or federal plan

States and Tribes may choose to incorporate the model rule text directly in their state or Tribal plan

EG OOOOc Includes a Model Rule





State or Tribal plans must be at least as protective as the model rule, or comply with RULOF requirements

The model rule contains the nine major components listed

EG OOOOc Compliance Schedule



Each plan must include compliance schedules

- OOOOc compliance schedule is "as expeditiously as practicable" but no later than 36 months after the deadline of the state plan submittal
 - Longer compliance schedule requires RULOF
- The plan must include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities

In Summary: Roadmap to EG OOOOc Implementation

State, Tribal Final State & State & **EPA Review Emission** and/or Increments Tribal Plans **Tribal Plans** Compliance & Approval **Guidelines** Federal of Progress Developed Submitted **Process Deadline** Plan

More information is available on EPA's website



Website for the final rule:

https://www.epa.gov/controlling-air-pollution-oiland-natural-gas-operations/epas-final-rule-oil-andnatural-gas

If you have questions about the rule, please email:

O&GMethaneRule@epa.gov