



EPA Issues Final Rule to Reduce Methane and Other Pollution from Oil and Natural Gas Operations Fact Sheet

Overview

- December 2, 2023 – The U.S. Environmental Protection Agency (EPA) has announced a final rule that will sharply reduce emissions of methane and other harmful air pollution from oil and natural gas operations, which represent the largest industrial source of methane pollution in the U.S. The final action includes updated and strengthened standards for methane and other air pollutants from new, modified, and reconstructed sources, as well as Emissions Guidelines to assist states in developing plans to limit methane emissions from existing sources.
- The final rule will deliver major climate and health benefits for all Americans by building on innovative technologies and solutions that leading oil and gas-producing states and companies are using, and have committed to use, to minimize or eliminate this harmful pollution. Among other things, the final rule will phase out routine flaring of natural gas from new oil wells, require all well sites and compressor stations to be routinely monitored for leaks and provide companies greater flexibility to use innovative and cost-effective methane detection technologies. It will also leverage data collected by certified third parties to identify and address “super emitting” sources and eliminate or minimize emissions from common pieces of equipment used in oil and gas operations such as process controllers, pumps, and storage tanks.
- Oil and natural gas operations are the source of nearly 30 percent of all methane emissions 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. The oil and natural gas sector is also a leading source of other harmful air pollution, including smog-forming volatile organic compounds (VOCs) and air toxics like benzene and toluene. These pollutants are emitted along with the methane and can affect the health of people who live and work near oil and natural gas facilities.
- The rule will avoid an estimated 58 million tons of methane emissions from 2024 to 2038, the equivalent of 1.5 billion tons of carbon dioxide – reducing methane emissions from regulated sources by nearly 80 percent relative to what they would be without the rule. By keeping methane from reaching the air, the rule will increase recovery of natural gas that

otherwise would be wasted. It will save enough gas from 2024 to 2038 to heat nearly 8 million homes for the winter.

- The rule will also avoid 16 million tons of smog-forming VOCs, along with 590,000 tons of toxic air pollutants like benzene and toluene, from 2024 to 2038. The ozone reductions that will result from cutting VOCs will have long-lasting benefits for public health, preventing up to 97,000 cases of asthma symptoms and 35,000 lost school days a year.
- EPA’s final rule reflects the Agency’s consideration of nearly 1 million comments on two proposals. This input helped EPA develop rigorous standards that will achieve significant reductions in methane and other air pollutants, promote technological innovation, and provide industry with sufficient time and flexibility to meet these standards in a cost-effective manner.

The rule recognizes and encourages innovation.

- The final rule recognizes and encourages innovation in the field of methane detection technology providing owners and operators the flexibility to use a range of advanced monitoring technologies — including combinations of different technologies — to identify leaks at well sites, centralized production facilities, and compressor stations.
- These advanced monitoring provisions enjoyed broad support from commenters, including industry, states, and environmental organizations.
- The rule also creates a streamlined pathway for owners and operators to demonstrate that new technologies meet the performance requirements in the rule, helping ensure that the rule keeps up with the pace of innovation in this sector. Many methane detection technologies and other cutting-edge solutions are being developed and deployed by small businesses providing good-paying jobs across the U.S.

The rule sets rigorous standards while providing industry with the time and flexibility needed to cost-effectively meet them.

- In response to industry feedback, EPA has adjusted several provisions of the rule to provide adequate time for compliance. For example:
 - The rule provides a two-year phase-in period for eliminating routine flaring of natural gas that is emitted from new oil wells. This gas is known as “associated gas.”
 - The rule provides a one-year phase-in for zero-emissions standards for new process controllers and most new pumps outside of Alaska. Process controllers were previously referred to as “pneumatic controllers.”
 - Where replacement components or parts required for leak repair cannot be obtained and installed by the repair deadline, the rule allows owners and operators additional time to repair leaks at well sites, centralized production facilities, and compressor stations.

- The final rule also updates the “applicability date,” which identifies which sources are subject to the New Source Performance Standards (NSPS) in the rule. The new date is December 6, 2022. This means that sources constructed prior to that date will be considered existing sources and will have later compliance dates under state plans.

The rule’s Super-Emitter Program will help detect large emissions events.

- The final rule leverages third-party expertise to find large leaks and releases known as “super emitters.” Recent studies show that emissions from a small number of sources are responsible for as much as half of the methane emissions from oil and natural gas operations. EPA expects that the final rule will reduce many sources of super emitters.
- The final rule reflects important changes, including features suggested by industry commenters, to provide a strong oversight role for EPA and ensure that the program operates with a high degree of integrity, transparency, and accountability.
- Under the final rule’s super-emitter program, EPA will certify third parties, will receive and evaluate the data the third parties provide, and send notifications to owners and operators.
- As the Agency proposed last year, only EPA-approved remote-sensing technologies, such as those used on satellites or in aerial surveys, may be used in the program. The rule does not allow the third parties to enter a well site or other facility.
- Once notified, owners and operators must investigate to find the source of the super emitter event. The responsible owners or operators must report the results of that investigation to EPA and repair any leaks or releases covered by an EPA standard.
- To keep the public informed, EPA will make the super-emitter data publicly available on a timely basis.

Other standards in the rule will contribute to significant methane reductions.

- Several other standards in the final rule will also reduce methane and VOC emissions. For example, the final rule:
 - Will ensure that all well sites, centralized production facilities, and compressor stations are routinely monitored for leaks. Monitoring requirements at well sites vary based on the type and amount of equipment at the site. The final rule also gives owners and operators flexibility to utilize a variety of advanced monitoring technologies to conduct monitoring at these sites.
 - Requires documentation that wells are properly closed and plugged before monitoring is allowed to end.
 - Requires owners and operators to monitor flares and other combustion control devices during routine leaks monitoring surveys, and to implement other compliance

assurance requirements to ensure that these control devices are operating properly on a continuous basis.

- Requires storage vessels (tanks), including groups of adjacent tanks known as “tank batteries,” to reduce emissions by 95 percent.
- Sets emissions standards for dry seal compressors, which were not previously regulated.
- Requires owners and operators to use best management practices to minimize or eliminate venting of emissions from gas well liquids unloading.

Other changes in the final rule will provide additional flexibility while ensuring emissions reductions.

- In addition to providing industry time to prepare for meeting the standards and secure equipment, the final rule includes a number of changes that will reduce burden for industry while ensuring necessary emissions reductions.
- For example, the rule recognizes that owners and operators of existing wells that produce lower amounts of associated gas may not have cost-effective alternatives to flaring. The final Emissions Guidelines for states provide greater flexibility to allow flaring at these lower-emitting wells.
- The rule also streamlines testing requirements for flares used for pollution control to ensure proper operation of these devices.

The rule includes requirements for state plans for existing sources.

- EPA’s final rule includes Emissions Guidelines for states to follow as they develop plans that establish, implement, and enforce performance standards for methane emissions from existing sources. EPA refers to existing sources as “designated facilities.”
- The Emissions Guidelines include “presumptive standards” for existing sources that cover the same types of facilities that are covered by the NSPS — except for well completions, which are always considered new or modified sources. The presumptive standards are intended to provide states with a starting point, much like a model rule, as they develop standards to include in their plans.
- The final rule provides states additional time to submit plans for reducing emissions from existing sources, with plans due 24 months after the effective date of the rule. EPA had proposed to provide states 18 months to submit plans.
- The final rule generally requires that state plans require compliance by no later than 36 months after the plans are due to EPA. This means that existing sources could have up to 5 years after the effective date of EPA’s final rule before they must comply with requirements in state plans.

- Federally recognized Tribes have the opportunity, but not the obligation, to develop their own plans establishing standards for methane for existing sources on their tribal lands. Tribes that choose to develop plans must follow the requirements for state plans.
- The final rule also clarifies ways states and Tribes can use aspects of their existing programs to meet planning requirements.
- EPA recently issued final “[Implementing Regulations](#)” that set timelines and other requirements for states’ development of plans under Emissions Guidelines issued under section 111(d) of the Clean Air Act. Requirements in the Implementing Regulations apply to the development of state plans for reducing methane from existing sources in the oil and gas industry, except where the final methane rule supersedes them. For example, states must follow requirements in the Implementing Regulations for meaningful engagement and the process for considering particular sources’ remaining useful life and other factors to apply a less-stringent standard of performance.

Benefits of the final rule far outweigh the costs.

- EPA estimates that the rule will yield net climate and ozone health benefits of \$97 to \$98 billion dollars from 2024-2038 (\$2019), the equivalent of \$7.3 to \$7.6 billion a year, after accounting for the costs of compliance and savings from recovered natural gas.
- EPA estimated the climate benefits using the Agency’s’ most recent analysis of the social cost of greenhouse gases (SC-GHG), a metric that represents the monetary value of avoided climate damages associated with a decrease in emissions of a greenhouse gas. Following peer review in May 2023, EPA finalized its technical report on the updated SC-GHG estimates reflecting recent advances in the science on climate change. This report, which also addressed recommendations of the National Academies of Science, Engineering, and Medicine, was used to value emissions reductions in the final rule.

For more information

- Read the final rule, the Regulatory Impact Analysis and additional fact sheets [at EPA’s website](#).