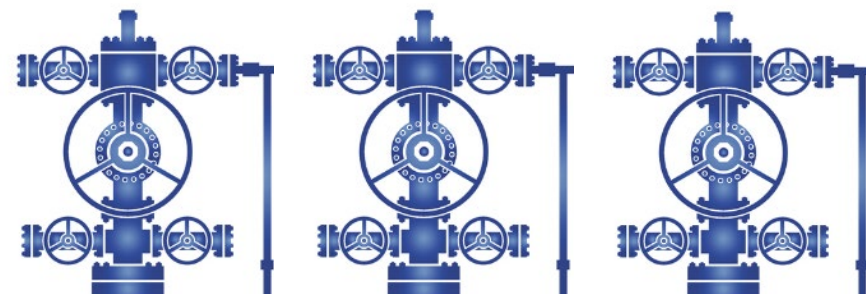




EPA's Final Rule to Reduce Methane and Other Harmful Pollution from Oil and Natural Gas Operations

December 2, 2023



Crude Oil and Natural Gas Operations: Where EPA's Rules Apply

Production & Processing

EPA's methane proposal covers equipment & processes at:

1. Onshore well sites
2. Storage tank batteries
3. Gathering & boosting compressor stations
4. Natural gas processing plants

Natural Gas Transmission & Storage

EPA's methane proposal covers equipment & processes at:

5. Compressor stations
6. Storage tank batteries

Distribution *(not covered by EPA rules)*

7. Distribution mains/services
8. City gate
9. Regulators and meters for customers

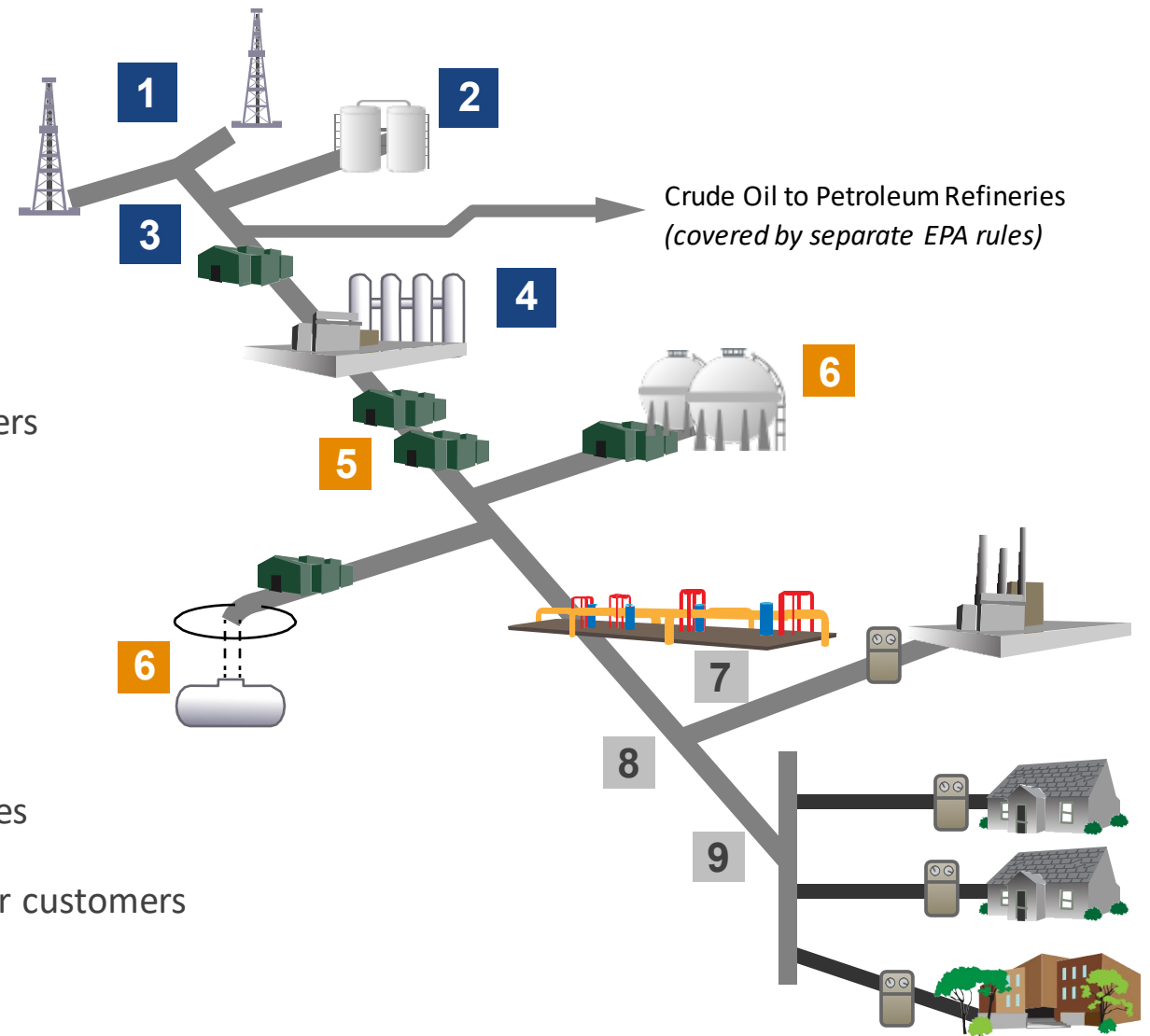


Figure adapted from American Gas Association and EPA's Natural Gas STAR Program

The rule will yield significant climate and health benefits



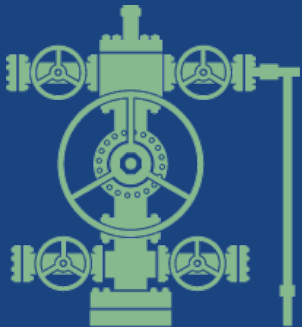
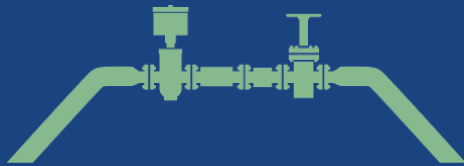
- The rule will achieve:
 - Historic reductions in methane pollution
 - Reductions in smog-forming VOCs
 - Reductions in air toxics like benzene.
- From 2024-2038 the rule will avoid:
 - 58 million tons of methane
 - Equivalent to 1.5 billion tons of carbon dioxide – nearly 80 percent lower than expected emissions without the rule
 - 16 million tons of VOCs
 - 590,000 tons of air toxics
- Net climate and ozone health benefits from 2024-2038 (\$2019)
 - \$97 to \$98 billion dollars
 - Equivalent of \$7.3 to \$7.6 billion a year
 - After accounting for the costs of compliance and savings from recovered natural gas.

**We considered
nearly 1 million
comments on
two proposals**



- Comments helped us develop workable, achievable standards that:
 - Will reduce even more methane than in the proposals
 - Promote technological innovation
 - Give industry time to plan and secure necessary equipment
 - Include important improvements to the Super Emitter Program

Standards in the rule contribute to dramatic reductions



Licensed images

The final rule:

- Ensures that all well sites, centralized production facilities and compressor stations are routinely monitored for leaks
 - Monitoring requirements vary based on type and amount of equipment at the site
 - Owners and operators have flexibility to use a variety of advanced monitoring technologies to monitor at these sites
 - Requires documentation that wells are properly closed and plugged before monitoring is allowed to end
- Adds zero-emissions standard for new process controllers and most new pumps outside of Alaska, after one-year phase in

Standards in the rule, cont.



The final rule also:

- Eliminates routine flaring of natural gas (methane) from new oil wells after the two-year phase-in
 - Reduces flaring of natural gas from existing wells
- Requires owners and operators to monitor flares and other combustion control devices during routine leaks monitoring surveys
 - Owners and operators must ensure that control devices are operating properly on a continuous basis
- 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

The final rule recognizes and encourages innovation



- The rule expands options for using advanced methane detection technologies to find leaks
- It encourages continued innovation by creating a streamlined pathway for owners and operators to use new technologies as they develop.

The rule gives industry time to prepare and secure equipment



- EPA updated several aspects of the rule to provide industry the lead time need to comply. Some examples:
 - Two-year phase-in period for eliminating routine flaring of natural gas from new oil wells
 - One- year phase in of zero-emissions standards for new process controllers and pumps outside of Alaska
 - Additional time to repair leaks at well sites, centralized production facilities and compressor stations if parts or components are not available

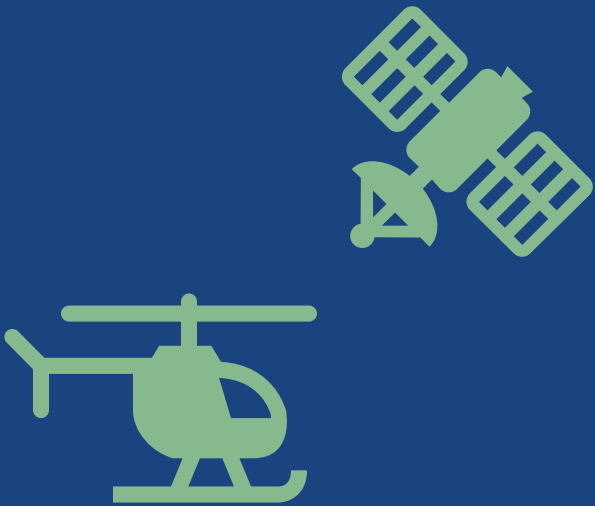
The rule gives industry time to prepare, cont.



- EPA also updated the “applicability date,” which identifies the sources that are subject to New Source Performance Standards
 - The new date is December 6, 2022.
 - Sources constructed prior to that date will be considered existing sources
 - Existing sources will have later compliance dates under state plans.

The Super Emitter Program will help detect large emissions

- The design of the final program reflects feedback from industry
- EPA will have a strong oversight role to ensure the program operates with a high degree of integrity, transparency and accountability
- EPA will:
 - Approve third-party notifiers
 - Receive and evaluate third-party data
 - Notify owners and operators
 - Make super emitter data public on a timely basis
- Only approved remote-sensing technologies like satellites and aerial monitoring will be allowed

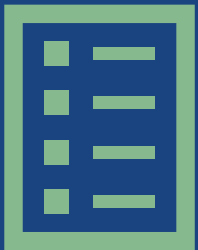


State Plans for Reducing Methane from Existing Sources



- Key dates:
 - State plans are due 24 months after the publication date of the rule
 - State plans generally must set compliance deadlines that are no later than 36 months after the plans are due to EPA
- Federally recognized Tribes have the opportunity, but not the obligation, to develop their own plans

State Planning Process, cont.



- The final rule clarifies ways states and Tribes can use aspects of their existing programs to meet planning requirements
- States/Tribes must follow requirements of the subpart Ba Implementing Regulations published November 17, 2023, for other plan requirements, such as:
 - Meaningful engagement
 - Applying a less-stringent standard to a source

**More
information is
available on
EPA's website**



Website for the final rule:

<https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-operations/epas-final-rule-oil-and-natural-gas>