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Kirkland Alert

Biden Administration Proposes Stricter Standards for Oil and Gas Methane Emissions

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In November 2021, the U.S. Environmental Protection Agency (EPA) [announced](#) proposed standards intended to cut methane emissions from both new and existing oil and gas sources, and stated that a supplemental proposed rule would follow in 2022. At the U.N. Climate Change Conference (COP27) on November 11, 2022, President Biden announced the anticipated updates to the proposed methane standards.¹ As discussed in greater detail below, this November 2022 supplemental proposal removes an emissions monitoring exemption for small wells and creates a new third-party monitoring program to flag large emission events, referred to in the proposed rule as “super-emitters.”²

The newly proposed rules will also interplay with the Inflation Reduction Act (IRA) that became law in August 2022, which we analyzed in a [previous series of Alerts](#). In particular, the IRA imposes fees intended to serve as incentives to improve monitoring and mitigation of methane leaks, but provides an exemption to such fees for facilities that demonstrate compliance with EPA’s emissions plan standards, once EPA’s regulations are finalized and in effect. The supplemental proposed methane standards announced by President Biden are currently anticipated to be finalized in May 2023.

EPA’s Proposed Methane Rules for Oil and Natural Gas Sources

The November 2022 supplemental methane emission proposal includes two distinct rulemaking actions under the Clean Air Act (CAA). First, EPA is proposing specific changes to tighten the proposed requirements under CAA section 111(b) for methane

and VOC emissions from sources that commenced construction, modification, or reconstruction after November 15, 2021. These proposed revisions would be promulgated in a new subpart to the rule and would include proposed standards for emission sources previously not regulated for this source category. Second, pursuant to CAA section 111(d), EPA is proposing specific revisions to strengthen the first nationwide emission guideline for states to limit methane pollution from existing facilities in the crude oil and natural gas source category, which would also appear in a new subpart to the rule.³

In addition, the November 2022 proposal: (1) aims to reduce emissions by adding proposed standards for certain sources that were not addressed in the November 2021 proposal, by revising the proposed requirements for fugitive emissions monitoring and repair, and by establishing a “super-emitter” response program to target timely mitigation of “super-emitter” emissions events; (2) encourages the deployment of innovative technologies and techniques for detecting and reducing methane emissions by providing additional options for the use of advanced monitoring; (3) modifies and refines certain aspects of the proposed standards in response to concerns and information submitted in public comments; and (4) provides additional information not included in the November 2021 proposal for public comments, such as content for the new subparts that reflects the proposed standards and emission guidelines, and details of the timelines and other implementation requirements that apply to states to limit methane pollution from existing designated facilities in the source category under CAA section 111(d).⁴ Notable timelines include the required submission of certain state plans to EPA under the new subparts within 18 months after publication of the final emission guideline, with state plans required to impose a compliance timeline on designated facilities no later than 36 months following the state plan submittal deadline.

Changes to Proposed Emissions Standards: 2021 to 2022⁵

The November 2022 supplemental proposal reflects public input on the November 2021 proposal and new information and analyses. Multiple areas of the proposal were changed, ranging from fugitive emissions to the use of Optical Gas Imaging (OGI) for leak detection. Key relevant changes are broken out into subtopics below:

Fugitive Emissions at Well Sites

- EPA is proposing a monitoring approach that will ensure all well sites are regularly monitored for leaks, also known as “fugitive emissions.” Wellhead-only sites would

no longer be excluded.

- The supplemental proposal would base the type and frequency of monitoring on the amount and types of equipment at a site, rather than on estimated emissions from a site, which EPA previously proposed in its November 2021 proposal.
- Control devices would be subject to continuous monitoring and regular inspections to ensure continuous operation rather than being considered “fugitive emissions components.”
- EPA is proposing requirements for owners/operators subject to OGI monitoring to follow prescribed protocol and procedures, with updated scope and applicability.

Preventing Abandoned and Unplugged Wells

- EPA is proposing to require continued monitoring at all well sites for the life of the applicable site, including until the wells are properly plugged and a final monitoring survey using OGI shows that there are no emissions.
- Well site owners and operators would also have to submit a well closure plan, including the necessary steps to close the wells at the site, the plugging of all wells, documentation of financial assurance to complete the well closure, and scheduling for completing closure activities. Owners and operators would further have to submit annual reports documenting ownership.

Methane Detection Technology

- EPA proposed a matrix approach that ties the frequency of required monitoring surveys to the detection capability of the technology used for such monitoring. The matrix also sets deadlines for repairs that are tied to the type of monitoring technology used. The supplemental proposed matrix allows the use of a broader range of alternative technologies.
- The proposal would also give owners and operators a pathway to use continuous monitoring technologies to check for methane leaks, and owners or operators would be required to determine the cause of a leak and take corrective action whenever emissions exceed either of two proposed action levels at the boundary of a facility. Continuous monitoring technologies would be subject to the same EPA approval as other advanced technologies.

Creation of a “Super Emitter” Response Program

- EPA is proposing a “Super-Emitter” Response Program to quickly identify large leaks for mitigation. A “super-emitter” is a large emissions event in which there is a release of 100 kg/hr or more of methane. The program would enable EPA-proposed

entities that properly document a “super-emitter event” to notify owners and operators and provide them the data about the event. The owners and operators would be required to determine the cause of the event and correct it if needed. EPA would post the complete notices, including data about the event and the owner and operator’s response, to a public website.

Flares

- EPA is proposing to limit the use of flares for eliminating venting of associated gas from oil wells. The supplemental proposal would require owners or operators to route associated gas to a sales line, use the gas for fuel or another beneficial purpose, or reinject it into a well for enhanced oil recovery.
- The supplemental proposal only allows flaring if the owner or operator submits a demonstration, certified by a professional engineer or other qualified individual, that a sales line is not available and other beneficial uses are not feasible for technical or safety reasons.
- Separately, EPA is proposing additional compliance requirements to ensure that flares used in oil and natural gas operations meet all applicable performance requirements, including requirements to continuously monitor the flare to ensure that a pilot flame burns at all times.
- In addition, under the proposed Super-Emitter Response Program, owners and operators would be required to take immediate corrective actions to bring flares into compliance if a super-emitter emissions event is caused by a flare.

Pneumatic Pumps and Controllers

- EPA is proposing a zero-emissions standard for all pneumatic pump-affected facilities, disallowing most natural gas-driven pumps. At sites that do not have access to electricity, owners and operators would be allowed to use natural gas-driven pumps if they demonstrate that it is not technically feasible to use pumps that are not driven by natural gas, but in such cases may have to implement emissions controls.
- The supplemental proposal would update the definition of “affected facility” for pneumatic controllers to be the collection of all natural gas-driven controllers at a well site, centralized production facility, onshore natural processing plant or compressor station.
- The proposal would remove exemptions for natural gas-driven controllers with emissions that are routed to a process, as well as for self-contained controllers. The proposal clarifies that these controllers, which should not emit methane and VOCs if they are properly maintained, can be used to meet a zero-emissions standard.

Liquids Unloading

- The supplemental proposal no longer considers all liquids unloading at existing wells to be a modification, and instead solicits comments on what actions should be considered a modification.
- EPA is proposing a presumptive standard of zero methane emissions for liquids unloading events at existing wells, which aligns with the standard for liquids unloading at new and modified wells. The standard would require liquids unloading to be constructed with zero methane and VOC emissions. Where it is not technically feasible nor safe to meet the zero emissions standard, EPA is proposing to require that owners and operators employ best management practices to minimize venting of emissions to the maximum extent possible.
- In addition, EPA is proposing reporting requirements for well liquids unloading operations. Owners and operators who use methods that vent to the atmosphere would have to document why it is not feasible to use a non-venting method for technical, safety or economic reasons, along with the best management practices used to minimize emissions during each liquids unloading operation.

Centrifugal Compressors

- EPA is proposing standards for new and existing dry seal compressors, which previously have not been regulated. Owners or operators of dry seal compressors would be required to maintain the volumetric flow rate at or below 3 standard cubic feet per minute to prevent emissions.
- EPA is also proposing to require that emissions from new, modified and reconstructed wet seal centrifugal compressors reduce methane and VOC emission by 95 percent. This can either be achieved by capturing and routing emissions from the wet seal degassing system to a combustion device or by routing the emissions to a process.
- For existing wet seal compressors, EPA is proposing a presumptive standard of a volumetric flow rate of 3 standard cubic feet per minute. As a compliance alternative, EPA is proposing to allow owners and operators to reduce methane emissions by 95 percent or greater by routing emissions to a control device or to a process.
- Self-contained wet seal centrifugal compressors would have to comply with the standard for dry seal compressors.

Changes to Protocol for using OGI for Leak Detection (Appendix K)

- EPA is proposing several updates to “Appendix K,” the protocol for using OGI that EPA included in the November 2021 proposal. Under the November 2022 supplemental proposal, Appendix K would only apply if a rule specifies that it should be used. For the oil and natural gas rules, Appendix K would apply to OGI surveys used to detect leaks at onshore natural gas plants. EPA also proposed changes to several aspects of training requirements.

Looking Ahead

EPA’s supplemental proposed rulemaking reflects the Biden Administration’s continued focus on reducing methane emissions from existing, modified and new oil and gas sources over the long term. The supplemental proposed rule will be subject to a 60-day comment period upon publication in the Federal Register (likely within the next few weeks), with the potential for additional changes in the finalized version, expected in May 2023.

Investors and operators in the oil and gas sector should continue to closely review, and consult with technical environmental consultants and counsel with respect to, these developments in order to understand implications for compliance and operational requirements, as well as the potential to reduce IRA fees under the compliance-based exemption.

1. Biden-Harris Administration Strengthens Proposal to Cut Methane Pollution to Protect Communities, Combat Climate Change, and Bolster American Innovation. ↩

2. EPA’s Supplemental Proposal to Reduce Pollution from the Oil and Natural Gas Industry to Fight the Climate Crisis and Protect Public Health: Overview. ↩

3. Supplemental Notice of Proposed Rulemaking, available at <https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/epa-issues-supplemental-proposal-reduce#:~:text=November%2011%2C%202022%20%2D%2D%20EPA,existing%20oil%20and%20gas%20operations> (prepublication version). ↩

4. *Id.* ↩

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Suggested Reading

- 04 August 2022 Kirkland Alert Manchin-Schumer Inflation Reduction Act: Proposed Environmental and Climate Policy Initiatives
- 05 November 2021 Energy Blog Biden Administration and Congress Focus on Methane Emissions
- 02 August 2022 Kirkland Alert Schumer and Manchin's Inflation Reduction Act Includes Significant Tax Incentives to Combat Climate Change

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