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Energy Blog

Biden Administration and Congress Focus on Methane Emissions

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In September, President Biden publicly announced the Global Methane Pledge. The pact, originally agreed by the United States and European Union, aims to reduce global methane emissions at least 30% below 2020 levels by 2030. Since its formal launch at the UN Climate Change Conference (COP 26) days ago, over 100 countries have joined the pledge. Additional countries are expected to join the pledge before COP 26 ends on November 12. In furtherance of this pledge, the Biden administration and Congress have recently taken significant actions intended to reduce methane emissions in the United States, in particular from the oil and gas sector. We summarize below several important developments on this front.

EPA Issues Proposed Methane Rules for Oil and Natural Gas Sources

On November 2, 2021, the U.S. Environmental Protection Agency (EPA) announced a proposed rulemaking intended to aggressively reduce methane emissions from oil and gas sources. Importantly, the proposed rule imposes emissions reductions standards on both new and existing sources in the oil and natural gas industry, expands the scope of Clean Air Act regulation, and imposes emissions reductions targets to meet the stated goals of the administration. The proposed methane rule is the chief element of a multi-agency action plan to reduce methane emissions.

Discussed further below, the proposed rule generally seeks to accomplish its objectives through two approaches. First, proposed "subpart 0000b" expands methane reduction requirements for new, modified, and reconstructed oil and gas sources, including standards focusing on certain source types that have never been regulated under the Clean Air Act (including intermittent vent pneumatic controllers,

associated gas, and liquids unloading facilities). Second, proposed "subpart 0000c" requires states (and incentivizes Tribal governments) to develop plans to reduce methane emissions from existing sources, and it proposes presumptive standards to assist in this process through established Emissions Guidelines. These new plans must be at least as effective as the Emissions Guidelines. Tribes who are eligible have the ability, but not an obligation, to also develop plans establishing emissions standards on their lands. The EPA has the authority to step in and develop plans for Tribes who do not wish to establish their own standards. This decentralized approach will likely lead to divergent and differing emissions standards across the country, but no state will have standards that are less stringent than the Emissions Guidelines established at a federal level. States would have three years to develop their compliance plan for existing sources, but the regulations for new sources would take effect immediately after publication of the final rule.

Supplemental Proposal and Final Rule Expected in 2022

Once the proposed rule is published in the Federal Register, it is expected to be open to a 60-day public comment period. According to the EPA, public comments will be critical as the EPA is specifically soliciting comments concerning a wide array of topics, including: fugitive emissions, further technological advancements in pneumatic controllers, eliminating venting of gas from oil wells, strengthening storage tank regulations, including additional pneumatic pumps in the rule, evaluating other pollution sources that could be covered by the rule, technologies that could assist a community monitoring program for emissions events, and the feasibility of state-level existing source standards implementation. EPA's specific stated areas of interest for potential rule expansion include abandoned and unplugged wells, flares, pipeline maintenance or "pigging," tank truck loading facilities, and the possible implementation of a community monitoring program for emissions events. Public comments on the above issues are expected to inform a supplemental proposal in 2022, which may expand and/or modify the current proposed rule. The EPA intends to issue a final rule before the end of 2022. These estimates and the scope of the rule may dramatically change with the supplemental proposal, and we will continue to monitor closely for future developments.

Key Elements of the Proposed Rule

 Methane Leaks and Fugitive Emissions. The proposed rule seeks to create a new monitoring program that would require operators to identify and repair leaks associated with new and existing well sites and compressor stations and address fugitive emissions. The program is targeted at monitoring sites and equipment deemed to likely have larger emissions. As currently proposed, the program encourages the use and development of advanced technologies to detect leaks rapidly and lessen the frequency of more prescriptive monitoring techniques (i.e., optical gas imaging and an EPA monitoring method known as Method 21) at well sites and compressor stations. In particular, the current framework would allow flexibility to choose advanced detection technologies that meet a minimum detection threshold, provided that surveys using such advanced technologies be deployed every two months and supplemented by annual monitoring using optical gas imaging or Method 21. The EPA is requesting public comment on the use of such advanced technologies, including how continuous monitoring technology might be used for leak surveys and whether the proposed advanced technology compliance pathway should be deemed the "best system of emission reduction" (BSER) for leak surveys at well sites and compressor stations.

In addition, well sites that have estimated methane emissions of three tons per year or more would be required to engage in leak monitoring on a quarterly basis using optical gas imaging or Method 21, and repair all identified leaks (as an alternative "co-proposal," the proposed rule would require sites with emissions between three tons and eight tons to be monitored semi-annually instead of quarterly). EPA estimates that this would require routine monitoring at approximately 300,000 well sites nationwide, which would cover sites responsible for 86% of all well site fugitive emissions. In addition, the proposed rule eliminates a regulatory exemption created by the Trump administration for low-production well sites and instead would require well sites with less than 3 tons of emissions to conduct a survey to confirm the absence of leaks and malfunctions, but impose no ongoing monitoring requirement. These sites would also be required to repair identified leaks. Finally, all new and existing compressor station sites would be required to monitor and repair any identified leaks every three months. Alaskan sources may have different monitoring schedules due to the weather.

Pneumatic Controllers. The proposed rule would require all new and existing
pneumatic controllers at production, processing, and transmission and storage
facilities (except for sites in Alaska without power) to have zero methane and volatile
organic compound (VOC) emissions. The proposed rule would also apply to
emissions from intermittent vent pneumatic controllers, which are currently not
regulated by the Clean Air Act. Operators would be free to select their preferred
emissions control technology as long as they achieve zero emissions.

- Venting. The proposed rule would also require owners and operators to capture vented natural gas and send it to a sales line, if available, or, when a sales line is not available, use the gas on site for a useful purpose (e.g., compression) or route the gas to a control device (including flares) that reduces methane and VOC emissions by at least 95%. Associated recordkeeping and reporting requirements in the proposed rule are designed to ensure the proper operation of flares and control devices.
- **Storage Tanks.** The proposed rule includes storage tank batteries within the scope of facilities that are required to reduce their methane and VOC emissions. Under the proposed rule, if a new, modified, or reconstructed tank battery has the potential to emit more than six tons per year, then it must reduce emissions by 95%, which is the same requirement for individual tanks under the current regulations. In addition, existing tanks or tank batteries that have the potential to emit 20 tons per year or more of methane must reduce their emissions by 95% under the proposed rule. The rule would also add tank hatches and openings to the list of equipment that must be monitored for leaks.
- **Pneumatic Pumps.** The proposed rule includes provisions for new and existing pneumatic pumps. The types of new pneumatic pumps subject to controls would be expanded to include all natural gas driven diaphragm and piston pumps used in production, and all diaphragm pumps used in transportation. The standards currently applicable to new pneumatic pumps require new pneumatic pumps that have access to a control device to reduce their emissions by 95%. Under the proposed rule, existing sources would be subject to these same standards with the exception of piston pumps.
- Methane and VOC Emissions Regulations. The proposed rule also contains several provisions that aim to reduce methane and VOC emissions in other contexts. For example, the proposed rule would establish nationwide methane and VOC emissions minimization requirements for liquids unloading operations, expand new natural gas processing facility leak detection and repair requirements and apply these same presumptive standards to existing sources, expand methane emissions requirements for new reciprocating compressors and apply these same presumptive standards to existing sources, and bring the standard for existing centrifugal compressors in line with current new source standards, which require 95% emissions control from wet seal degassing.

PHMSA Final Rule for Onshore Gas Gathering Pipelines

In another move to reduce methane emissions, on November 2, 2021, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety

Administration (PHMSA) issued a final rule that expands federal pipeline safety oversight to all onshore gas gathering pipelines. The rule does not apply to offshore gas gathering pipelines. PHMSA's action is the second part of a three-part rulemaking process initiated in April 2016 that the agency called the Gas Mega Rule. The first part, issued in October 2019, updated certain requirements for gas transmission lines. The final part, focused on inspection and repair of those transmission lines, is expected in early 2022.

The latest PHMSA rule expands the definition of a "regulated" gas gathering pipeline to apply federal pipeline safety regulations to thousands of miles of previously unregulated gas gathering pipelines. Gas gathering lines typically transport natural gas from production facilities to interstate gas transmission pipelines. Historically, gathering lines have been lower-pressure, lower risk, smaller-diameter lines, typically situated in lesser-populated, rural areas. PHMSA notes that with the increase in fracking over the last 15 years, the volume of gas extracted and transported through gathering lines has increased significantly and gathering lines with diameters, operating pressures, and associated risk factors similar to larger interstate transmission lines have become more common. PHMSA also states that many of these gathering lines pose an increased risk to the environment.

The final rule establishes a new category of regulated onshore gathering lines covering higher-pressure lines that pose a heightened risk in rural areas, and applies existing pipeline safety requirements. Specifically, it provides for a new Type C regulated gathering line, defined as a line in Class 1 locations that have outer diameters of 8.625 inches or greater and operate at higher stress levels or pressures. The safety requirements for Type C lines are specified in the rule and vary based on the outer diameter of the pipeline and the potential consequences of a failure. Operators of regulated gathering lines will have one year after the effective date of the final rule to comply with these new requirements.

In addition, PHMSA will require operators to report safety information for all gas gathering lines. According to the agency, more than 425,000 additional miles will be covered by the new requirements, which include submittal of incident reports and comprehensive annual reports to PHMSA, and implementation of corrosion control measures, leakage surveys, and emergency response planning.

Proposed "Build Back Better" Legislation

Finally, although final passage remains uncertain, the House version of the "Build Back Better" Act includes several provisions targeting methane emissions, some of which are highlighted below.

Incentives to Reduce Methane Emissions

The proposed legislation amends the federal Clean Air Act and provides the EPA with \$775 million for: (i) grants, rebates, contracts and loans to provide financial and technical assistance to owners and operators of facilities that prepare and submit greenhouse gas reports; (ii) grants, rebates, contracts and loans for methane emissions monitoring; and (iii) grants, rebates, contracts and loans to provide financial and technical assistance to reduce methane and other greenhouse gas emissions from petroleum and natural gas systems, to mitigate legacy air pollution from petroleum and natural gas systems and to provide support for communities. This funding is intended to cover efforts to improve climate resiliency of communities and petroleum and natural gas systems, improve and deploy processes that reduce methane and other greenhouse gas emissions and waste, support innovation in methane and other greenhouse gas emissions and waste, mitigate health effects from greenhouse gas emissions and waste and legacy air pollution from petroleum and natural gas systems in low-income and disadvantaged communities, and support environmental restoration.

Fees for Methane Emissions

The EPA Administrator is required to establish waste emissions thresholds for petroleum and natural gas facilities required to report methane emissions as defined under subpart W of part 98 of title 40 of the Code of Federal Regulations, and to impose and collect a charge on waste emissions that exceed those thresholds. The proposed legislation imposes fees of \$900 per ton of excess methane in 2023, increasing to \$1,200 per ton of excess methane in 2024 and \$1,500 per ton of excess methane in 2025. The proposed legislation directs EPA to impose this charge on the reported tons of methane emissions from production facilities that exceed (i) 0.20% of the natural gas sent to sale from the facility or (ii) 10 metric tons of methane per million barrels of oil sent to sale from such facility if the facility did not send any natural gas to sale. The EPA must impose the charge on the reported tons of methane emissions from non-production facilities that exceed 0.05% of the natural gas sent to sale from the facility, and on transmission facilities for reported tons of methane emissions that exceed 0.11% of the natural gas sent to sale from the facility. The charge would not be imposed with respect to emissions caused by an unreasonable delay in environmental permitting of gathering infrastructure, and a facility's liability for payment of this

charge is not affected by emissions standards, permit fees, penalties or other legal requirements.

More Sources would be Subject to Greenhouse Gas Emissions Reporting

Under the proposed legislation, after two years of enactment, and as needed thereafter, the EPA must revise the requirements under subpart W of part 98 of title 40 of the Code of Federal Regulations to reduce the facility emissions threshold to 10,000 metric tons of carbon dioxide equivalent of greenhouse gases emitted per year (down from the existing threshold of 25,000 metric tons) and to ensure the reporting and calculation of charges are based on empirical data and accurately reflect methane and waste emissions from facilities. This change would increase the number of oil and gas facilities that are subject to federal annual greenhouse gas emissions reporting.

Looking Ahead

These actions across agencies and legislative branches demonstrate a concerted effort to reduce methane emissions from oil and gas sources. The EPA's proposed regulation of not only new and modified sources, but also existing sources, have the potential to impact the oil and gas industry over the long term. Companies in the oil and gas industry should continue to review these developments closely with a view to adapting operations and practices to meet compliance requirements. We will continue to closely monitor the actions by the Biden administration and Congress on these matters.

1. https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2021/09/18/joint-us-eu-press-release-on-the-global-methane-pledge/ ϵ

2. Gas Gathering Final Rule Submission - 11.2.2021↔

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- 22 June 2022 Energy Blog FERC Order Revokes Solar Facility's QF Status
- 11 May 2022 Energy Blog New Framework Announced for Assessing and Reporting Nature-Related Financial Risks

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