

What Midstream Businesses Need To Know About EPA's Proposed Methane Air Emissions Rules

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EPA's recently proposed New Source Performance Standards for methane and volatile organic compound ("VOC") emissions from the oil and gas sector would place time-consuming and expensive new requirements on midstream businesses, including ongoing emissions monitoring and equipment replacement requirements at compressor stations.

Businesses concerned about this proposed rule or interested in participating in EPA's decision-making process have only 60 days after the proposed rule is published in the Federal Register to submit comments to the agency. Submitting comments is the best way to raise concerns about technical issues that are likely to have significant costs to businesses. Because these comments form part of the record that a court reviews when evaluating a regulation, submitting comments is also an important way to preserve these arguments for litigation if businesses later decide to challenge EPA's final rule. The midstream industry can also provide EPA with important insights into the real world implications for some of its proposals, and serve as a counter-balance to environmental advocacy groups that are likely to push for more stringent regulations. EPA is accepting comments on any aspect of the new rule but has specifically requested comments on particular requirements of the proposed rule.

Background

EPA already has established standards for VOC emissions for several select operations in the oil and gas sector through the "Subpart OOOO" regulations which applies to upstream and gas plant operations. Now EPA is proposing to expand the existing VOC standards to cover additional equipment, including from midstream operations, and establish new methane standards for the covered equipment. Under the proposal, the current VOC best system of emission control standards found in Subpart OOOO will apply for both methane and VOC emissions for the expanded list of equipment, including certain equipment at compressor stations. The new rules impose requirements related to fugitive emissions at compressor stations and on the seals used in compressors.

Fugitive Emission Monitoring

Under the proposal, operators of new and modified compressor stations will be required to conduct initial and semi-annual monitoring surveys using optical gas imaging ("OGI") technology or EPA's Method 21. The initial survey must be done 30 days of site startup or a modification. A source is "modified" when one or more compressors is added to a compressor station after the effective date of the final rule, or when a physical change is made to an existing compressor that increases compressor capacity.

If a survey detects leaks, repairs must be completed within 15 days, and then a resurvey of the compressor must be completed within 15 days of the repair. EPA's proposed rule would relax the frequency of subsequent surveys from semiannually to annually if the data shows fugitive emissions from less than one percent of their components. Conversely, the frequency would increase from semiannually to quarterly for sites with fugitive emissions from three percent or more of their components.

EPA has asked for comment on a number of topics related to fugitive emissions including whether this monitoring should be of the compressor or the facility as a whole. EPA also asked for comment on the frequency of surveys. Midstream businesses may also want to comment on whether 15 days is enough time for them to complete repairs.

In addition, midstream businesses may wish to comment on whether OGI or Method 21 should be used for the surveys. Method 21 can be far more time-consuming than the use of OGI cameras. OGI uses a camera type device that is pointed at components or groups of components while the display is monitored to determine whether there is a leak is present. Method 21 requires the operator to slowly move a probe from a hand held instrument in close proximity to the portion of a component that may leak. Studies have shown that OGI can monitor 1875-2100 components per hour, while Method 21 can only monitor about 700 components per day. Method 21 also detects leaks at a much lower level—500 ppm—than OGI, which may not detect fugitive emissions below 10,000 ppm. As a result, using Method 21 is more likely to result in additional equipment replacements and repairs. OGI surveys also present their own problems. Most midstream companies do not own OGI cameras, and EPA is concerned that there may not be enough contractors to perform the surveys. By contrast, EPA notes that many businesses already own the devices needed to perform surveys using Method 21.

Centrifugal And Reciprocating Compressors

The proposed rule requires wet seal centrifugal compressors to achieve 95% control efficiency by capturing and routing VOC and methane emissions to a combustion control device. Alternatively, the proposed rule will allow centrifugal compressors to use dry seal systems or capture gas from centrifugal compressor seals and route it

back to a low pressure fuel gas system. Costs from upgrading these seals can quickly add up, and midstream businesses should consider commenting on the cost and reasonableness of controls.

Conclusion

Midstream businesses can help EPA to make informed decisions about how to regulate methane emissions if they submit comments during the 60-day public comment period. By formulating responses to EPA now, midstream businesses may be able to save compliance costs down the road or be in a better position to challenge EPA's final rule.

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