

As Climate Changes So Does Focus On Methane Emissions

Law360, New York (August 26, 2014, 10:24 AM ET) --

While carbon dioxide emissions have garnered most of the attention in recent months due to the new U.S. Environmental Protection Agency utility regulations, the Obama administration has also turned its focus to emissions of another greenhouse gas: methane. In March, the administration released a 15-page interagency guidance document that laid out preliminary steps for reducing methane emissions. According to the document, methane currently accounts for approximately 9 percent of greenhouse gas emissions in the U.S. and is 20 times more potent as a greenhouse gas than carbon dioxide.

In the U.S., emissions of methane come from the following sectors: agriculture (36 percent); natural gas systems (23 percent); landfills (18 percent); coal mining (10 percent); petroleum systems (6 percent); and wastewater treatment systems (2 percent). This update focuses specifically on methane emissions from natural gas systems, but stakeholders from each of the above-referenced industries should closely monitor actions taken on methane in the coming months. The administration is already undertaking action to reduce methane emissions across multiple sectors and industries, which could impact regulatory compliance decisions to avoid enforcement action by federal regulators.

The administration's guidance document follows months of pressure from the environmental community on both the business community and EPA to address the leakage of methane from the oil and gas industry. For example, in 2012, the Natural Resources Defense Council issued a report, "Leaking Profits," which outlined a number of steps the oil and gas industry could take to reduce methane emissions while, according to the NRDC, saving the industry money.

Because the greenhouse gas potency for methane is greater than carbon dioxide there is a growing concern that the switch from coal to natural gas doesn't result in a greater climate impact. According to the NRDC, if the leakage rate from natural gas infrastructure is below 3 percent then a natural gas fired power plant performs better than a coal-fired plant in terms of its greenhouse gas equivalency. However, if the leakage from the natural gas infrastructure exceeds 7 to 8 percent then there is no discernable benefit over a coal-fired power plant.



Andrew R. Wheeler

Recent Actions

The administration convened a series of roundtables, led by Energy Secretary Ernest Moniz, to discuss ways to reduce methane emissions from the natural gas sector. After the fifth roundtable Secretary Moniz identified a number of benefits from methane reductions, including “job creation through pipeline and other equipment replacement, cost recovery for infrastructure investments that increase safety and save energy and opportunities for addressing climate change by reducing greenhouse gas emissions.”

In April, the EPA began reviewing several technical white papers looking at methane emissions from the oil and natural gas sectors and potential mitigation options. The EPA first reviewed the available data on emissions from five subsectors, assessed the current technologies and practices that can be used to reduce emissions and, finally, set out a series of “charge” questions to guide interested stakeholders in their responses. While not a formal regulatory proceeding, the agency did request stakeholder input on their nonregulatory docket.

In July, EPA Inspector General Arthur Elkins Jr. released a report claiming his agency had done an insufficient job of reducing methane emissions from natural gas pipelines. The report went on to say that voluntary programs at the EPA have not done much to reduce emissions, and argued that the agency should collect new data on the issue. The report also recommended that the EPA work with the U.S. Pipeline & Hazardous Materials Safety Administration to address the issue, particularly from the natural gas local distribution companies. An interesting note in the report is an estimate by Elkins that in 2011, more than \$192 million worth of natural gas was lost due to leaks in pipelines.

In late July, the U.S. Department of Energy announced several steps to prevent methane leaks from natural gas transmission and distribution systems based on their roundtables. For example, they are beginning the process of establishing energy efficiency standards for new natural gas compressor units, which according to their estimates consume more than 7 percent of natural gas. Second, they announced a new industry collaboration that will evaluate and establish a high-impact manufacturing research and development initiative to improve natural gas system efficiency and leak reduction. Third, they advised the Federal Energy Regulatory Commission to examine methods by which industry can achieve enhanced cost recovery, in order to modernize transmission infrastructure. Finally, they have joined the National Association of State Regulatory Utility Commissioners in a partnership to encourage investments for infrastructure modernization and repairs to the natural gas distribution networks. As part of this partnership DOE will provide grant funding and technical assistance to help the state utility commissioners for reducing methane emissions from the transmission and distribution systems.

Reactions

The Independent Petroleum Association of America responded to the EPA white papers on behalf of industry. While the white papers provided technical comments and answers to the “charge” questions, the IPAA criticized the timing of the process, stating the “truncated process implemented by the EPA and administration is unlikely to lead to sound policy decisions.” The IPAA also pointed out that “increased natural gas electricity generation is the primary reason the U.S. has reduced greenhouse gas emissions more significantly than any other industrialized country. Making natural gas development more expensive by expanding federal regulation could decrease that climate change success over time, as decreased supply drives prices that result in less natural gas power generation.” The IPAA also pointed out that industry has voluntarily reduced methane emissions by 40 percent between 2006 and 2012, without a federal mandate.

The Environmental Defense Fund, which early on praised the administration's process, also participated as a technical reviewer of the EPA's white papers. After their release the EDF applauded the "EPA's rigorous analysis through the white paper process [which] illustrates that methane leaks from oil and gas equipment and facilities are a problem, but one that sensible and cost-effective policy measures can help us overcome." They also stated that the "EPA has the strong foundation to move forward on direct regulation of methane emissions from the oil and gas sector to protect our climate and public health."

What's Next

This fall, after evaluating the technical white papers, the EPA will determine if regulatory action is necessary to reduce emissions. The EPA could utilize Sections 111 and 182 of the Clean Air Act, among other provisions of law. The EPA could set standards under Section 111 or 182, or the agency could issue control techniques guidelines. The EPA was also tasked with expanding their voluntary natural gas STAR Program to encourage more industry collaboration. The EPA was specifically charged to finalize any necessary regulatory actions by the end of 2016.

In addition to those regulatory actions contemplated by the EPA thus far, it is important to note that the agency is currently undertaking the ozone standard review under Section 109 of the CAA. While the EPA has not identified this particular rulemaking to address methane releases, the interagency white paper noted the role that methane plays in ozone formation. Methane is a precursor to ozone and tightening the ozone standard may encourage states to address methane production through their state implementation plans to assist in compliance.

In January 2015, the DOE will release its first installment of the Quadrennial Energy Review, which will identify abatement opportunities to reduce methane emissions from natural gas processing, transmission, storage and distribution. The department is charged to help identify the most cost-effective options working with the national labs, EPA, nongovernmental organizations and industry.

The EPA continues to build upon the data in the U.S. Greenhouse Gas Inventory through the Greenhouse Gas Reporting Program. In March 2014, the EPA proposed revisions to GHGRP calculation methods, monitoring and data reporting requirements that would enhance the quality of the reported data from petroleum and natural gas systems, such as for liquids unloading, completions and workovers and compressors. In addition, they have already announced plans in 2015 to make further improvements to the GHGRP regulatory requirements for petroleum and natural gas systems.

President Obama has placed a major focus on his Climate Action Plan to reduce the causes and impacts of climate change. The president's environmental legacy, in part, depends on completing many action items related to climate change before the end of 2016. Given methane's potency as a greenhouse gas, and the fact that the administration has focused almost entirely on carbon dioxide up to this point, stakeholders should be prepared for the administration to move forward aggressively and quickly on methane emissions from the natural gas sector in the coming months.

—By Christopher H. Dolan, Andrew L. Ehrlich, Andrew R. Wheeler and Luke S. Tomanelli, Faegre Baker Daniels LLP

Christopher Dolan is a partner in Faegre Baker Daniels' Minneapolis office.

Andrew Ehrlich and Andrew Wheeler are principals and Luke Tomanelli is a managing advisor in Faegre Baker Daniels' Washington, D.C., office.

The opinions expressed are those of the author(s) and do not necessarily reflect the views of the firm, its clients, or Portfolio Media Inc., or any of its or their respective affiliates. This article is for general information purposes and is not intended to be and should not be taken as legal advice.

All Content © 2003-2014, Portfolio Media, Inc.