

Reducing Methane Emissions from the Oil and Natural Gas Industry

March 10, 2016 – As part of the Obama Administration’s commitment to addressing air pollution and climate change, EPA announced its next step in reducing emissions of methane from the oil and natural gas industry: moving to regulate emissions from existing sources. The agency will begin with a formal process to require companies operating existing oil and gas sources to provide information to assist in the development of comprehensive regulations to reduce methane emissions.

An Information Collection Request (ICR) will enable EPA to gather important information on existing sources of methane emissions, technologies to reduce those emissions and the costs of those technologies in the production, gathering, processing, and transmission and storage segments of the oil and gas sector.

There are hundreds of thousands of existing oil and gas sources across the country; some emit small amounts of methane, but others emit very large quantities. Through the ICR, EPA will be seeking a broad range of information that will help us determine how to effectively reduce emissions, including information such as how equipment and emissions controls are, or can be, configured, and what installing those controls entails.

EPA will also be seeking information that will help the agency identify sources with high emissions and the factors that contribute to those emissions. The ICR will likely apply to the same types of sources covered by the current and proposed New Source Performance Standards for the oil and gas sector, as well as additional sources.

Stakeholder outreach -- In the next few weeks, EPA will be reaching out to stakeholders about the ICR process. We’ll be talking with industry, environmental groups, state, local and tribal air agencies, and communities to walk them through the process and to hear feedback and insights on our plans.

Seek public comment on the draft ICR -- The ICR process, which is governed by the Paperwork Reduction Act, provides the public opportunities to review drafts of the information collection request. EPA will begin the ICR process next month, signing a draft information collection request that will be made available for public comment. The agency will revise that draft as necessary based on comment and send it to the Office of Management and Budget for additional review and input. Once the collection request is approved– which can include surveys and required emissions monitoring – it will go to industry, which is required to respond and attest that the information it provides is accurate. EPA’s goal is to receive the first phase of information later this year.

EPA’s progress addressing methane from the oil and gas industry

Methane, the key constituent of natural gas, is a potent greenhouse gas with a global warming potential more than 25 times that of carbon dioxide. Methane is the second most prevalent greenhouse gas emitted in the United States from human activity – and nearly 30 percent of those

emissions come from oil production and the production, processing transmission and distribution of natural gas. Methane from the oil and gas industry comes packaged with other pollutants, including volatile organic compounds (VOCs) that help form harmful smog, and a number of harmful pollutants known as air toxics.

Since 2012, EPA has taken a number of important steps to reduce air pollution from the oil and gas sector, while allowing continued responsible development in this industry that is important to the economy and energy security, and to improve measurement of methane emissions from this dynamic and diverse industry. These steps include:

April 2012: EPA issues rules to reduce smog-forming VOCs that also yield significant reductions in methane -- These rules include the first federal air standards for hydraulically fractured and re-fractured natural gas wells, along with requirements for several other sources of pollution in the oil and natural gas industry that were not previously regulated at the federal level. The 2012 rules are expected to achieve significant methane reductions as a co-benefit of reducing volatile organic compounds: EPA estimates the rules will reduce 1 to 1.7 million short tons of methane when they are fully implemented in 2015– the equivalent of about 19 to 33 million metric tons of carbon dioxide.

March 2014: Obama Administration releases Climate Action Plan: Strategy to Reduce Methane Emissions -- The Methane Strategy sets out the Administration’s plan to reduce both domestic and international methane emissions through voluntary programs and existing regulatory authorities, and outlines efforts to improve measurement of this potent greenhouse gas. The Strategy calls on EPA to build on the success of its voluntary programs and regulations in reducing methane emissions from the oil and gas sector, and to improve data collection and measurement.

April 2014: EPA releases technical white papers -- As noted in the Methane Strategy, EPA releases for peer and public review five technical white papers on significant sources of emissions in the oil and gas sector. The papers focus on technical issues covering emissions and mitigation technologies and practices that target reductions in methane and VOCs. EPA indicates that it will use the papers, along with input from peer reviewers and the public, to determine how best to pursue additional reductions from these sources.

January 2015: EPA outlines strategy for making progress toward a new Administration methane reduction goal – The agency outlines a series of steps it will take to address methane and VOCs from the oil and gas industry. The strategy targets actions aimed at reducing methane emissions from new and modified sources in this sector, reducing ozone-forming pollutants from existing sources in areas that do not meet federal ozone health standards, and building on work that states and industry are doing to address emissions from existing sources elsewhere.

August 2015: EPA proposes rules to reduce methane and VOCs from new and modified oil and gas sources, and issues draft guidelines to reduce VOCs from existing sources in areas with smog problems – The proposed rules are a part of a suite of commonsense requirements that together will help combat climate change, reduce air pollution that harms public health, and provide greater

certainty about Clean Air Act permitting requirements for the oil and natural gas industry. The proposals include:

- Updates to the agency's New Source Performance Standards that would set methane and VOC requirements for additional new and modified sources in the oil and gas industry. The proposal would require methane and VOC reductions from hydraulically fractured oil wells, extend emission reduction requirements further "downstream" than the 2012 rules, and require owners/operators to find and repair leaks, which can be a significant source of both methane and VOC pollution. The updates are expected to reduce up to 400,000 short tons of methane in 2025, the equivalent of cutting up to 9 million metric tons of carbon dioxide.
- Draft guidelines for reducing VOC emissions from existing oil and gas sources in certain ozone nonattainment areas as well as in the mid-Atlantic and northeastern states in the Ozone Transport Region. EPA estimates these Control Techniques Guidelines would reduce about 82,000 short tons of VOCs a year – and yield about 220,000 short tons of methane reductions as a co-benefit.
- Updates to clarify the agency's air permitting rules as they apply to the oil and natural gas industry; and
- A Federal Implementation Plan to implement minor New Source Review permitting in Indian country.

October 2015: EPA publishes new Greenhouse Gas Reporting Program Oil & Gas Activity Data --

The Greenhouse Gas Reporting Program's publication of annual greenhouse gas data includes, for the first time, activity data from oil and gas facilities (for 2014 and for previous years) that had previously been deferred. This information includes equipment counts, operational parameters, and other data that are used to calculate GHG emissions. This new information, along with additional new data that will be submitted starting in 2016 and 2017, supports the goals outlined in the Methane Strategy to improve the completeness, quality, accuracy and transparency of data from this sector, and improve the ability of agencies and the public to use the GHG data to analyze emissions and understand emission trends.

January 2016: EPA finalizes Best Management Practices Commitment Framework for the Voluntary Natural Gas STAR Methane Challenge Program --

Based on extensive stakeholder feedback, EPA finalizes this framework, which provides a new mechanism through which oil and gas companies can make and track ambitious commitments to reduce methane emissions. The Program, which will cover onshore oil production and the entire natural gas value chain from onshore production through distribution, has the capability to comprehensively and transparently reduce emissions and realize significant voluntary reductions in a quick, flexible, cost-effective way. The program will be launched March 30, 2016 with founding partners.

February 2016: EPA releases Public Review Draft of the U.S. Inventory of Greenhouse Gas

Emissions and Sinks: 1990-2014 -- The draft inventory contains a number of important updates reflecting new and improved data that have become available on the oil and gas sector through

EPA's Greenhouse Gas Reporting Program and studies by government, academic, and industry researchers, and industry organizations. The new information shows that methane emissions from existing sources in the oil and gas sector are substantially higher than we previously understood.