

Final Greenhouse Gas Reporting Rule:

Subpart W: Petroleum and Natural Gas Systems

Frequently Asked Questions

General Information on Rule

What is the action being taken?

On November 8, 2010, the U.S. Environmental Protection Agency (EPA) signed a final rule for the reporting of greenhouse gases (GHG) from petroleum and natural gas systems. This rule amends the 40 CFR Part 98, the regulatory framework for the Greenhouse Gas (GHG) Reporting Program. This program requires reporting of GHGs from large emissions sources and suppliers in the United States. This rulemaking requires petroleum and natural gas facilities emitting 25,000 metric tons of carbon dioxide equivalent (mtCO₂e) or more report their GHG emissions to EPA annually. Industry segments include: onshore petroleum and natural gas production, offshore petroleum and natural gas production, onshore natural gas processing, natural gas transmission, underground natural gas storage, liquefied natural gas (LNG) storage, LNG import and export, and natural gas distribution.

What is the purpose of this rulemaking?

As one of the top sources of human-made methane emissions in the United States, petroleum and natural gas systems are an important addition to the GHG data that EPA is already collecting under the GHG reporting program. This final rule will provide important data on the location and magnitude of GHG emissions from petroleum and natural gas systems. Data collected from this source category are critical to fully understanding the complete picture of U.S. emissions and will also allow facilities to compare their emissions to other facilities of similar size.

When will the reporting requirements go into effect?

Reporting will be at the facility level with data collection beginning on January 1, 2011. Reporters will submit annually with the first report due to EPA by March 31, 2012, for emissions during 2011.

Will petroleum and natural gas facilities be allowed to use Best Available Monitoring Methods?

Yes. For specified time periods during the 2011 data collection year, reporters may use best available monitoring methods for certain emissions sources in lieu of the methods prescribed for specific sources in the rule. This is intended to give reporters flexibility as they revise procedures and contractual arrangements during early implementation of the rule. Best available monitoring methods are any of the following methods: monitoring methods currently used by the facility that do not meet the specifications of a relevant subpart; supplier data; engineering calculations; or other company records.

The final rule lays out the specific instances where best available monitoring methods may be used in the petroleum and natural gas industry segments. In general, best available monitoring methods are available for three specific instances: 1) well related emissions sources; 2) activity data (component counts) that are required to begin on January 1, 2011; and 3) acquisition and implementation of leak detection and monitoring equipment. In addition, EPA retains the right to consider on a case by case basis petitions to

use best available monitoring methods for all sources in the case of unanticipated issues and extreme or unique circumstances. In all cases, the owner or operator must use the equations and methods set forth in 40 CFR 98.233, but may use best available monitoring methods to estimate the parameters in the equations as specified in the rule.

How did EPA engage stakeholders in the development of the rule?

EPA conducted targeted outreach to the petroleum and natural gas industry after release of the April 2010 proposal, and through this process met with all major petroleum and natural gas industry trade associations, many petroleum and natural gas companies, and States. EPA incorporated many of the public comments received into this final rule.

Coverage

Who is required to report under this rule?

This rulemaking requires reporting from the following petroleum and natural gas industry segments: onshore petroleum and natural gas production, offshore petroleum and natural gas production, onshore natural gas processing, natural gas transmission compression, underground natural gas storage, liquefied natural gas (LNG) storage and LNG import and export. Facilities that contain petroleum and natural gas systems that emit 25,000 metric tons or more of CO₂ equivalent per year are required to report annual GHG emissions to EPA.

How many facilities are required to report?

EPA estimates that approximately 2,800 facilities will be required to report under this rule. Just less than half of these facilities will already be reporting to EPA beginning in 2011 under other subparts of the GHG Reporting Program (e.g., subpart C, General Stationary Fuel Combustion).

What percentage of GHG emissions from the oil and gas industry are covered by the rule?

EPA estimates that this rule will cover approximately 85 percent of total GHG emissions from the petroleum and natural gas industry.

Which GHGs are covered under the rule?

This final rule requires petroleum and natural gas facilities to report annual methane (CH₄) and carbon dioxide (CO₂) emissions from equipment leaks and venting, and emissions of CO₂, CH₄, and nitrous oxide (N₂O) from flaring, onshore production stationary and portable combustion emissions, and combustion emissions from stationary equipment involved in natural gas distribution. Facilities covered by this rule might also be required to report emissions under other subparts of the GHG Reporting Program, if applicable. The GHG Reporting Program requires reporting of human-made GHG emissions: CO₂, CH₄, nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorochemicals (PFC), and sulfur hexafluoride (SF₆), as well as other fluorinated gases (e.g., nitrogen trifluoride and hydrofluorinated ethers). These gases are often expressed in metric tons of carbon dioxide equivalent (mtCO₂e).

Will EPA provide a tool to assist reporters in assessing their applicability under this rule?

Similar to what EPA has already provided for other subparts of the Greenhouse Gas Reporting Program, EPA plans to develop voluntary screening tools for the petroleum and natural gas source category to assist reporters in their applicability determinations. EPA anticipates that such tools would be based on easily determined inputs such as major equipment or operational counts. While the tools would be designed to provide help to potential reporters for complying with the rule, compliance with all Federal, State, and local laws and regulations remain the sole responsibility of each facility owner or operator subject to those laws and regulations. The tools would only serve as a guide to determine those facilities that are clearly well below the reporting threshold, those clearly above, and those close to the threshold who will need to collect further data to make a proper determination.

How is a Facility defined?

How does EPA define “facility” under the final petroleum and natural gas systems rule (Subpart W)?

The definition of “facility” for most of the reporting entities under this rule is the same as for most other sectors under the GHG Reporting Program which defines “facility” as any physical property, plant, building, structure, source, or stationary equipment located on one or more contiguous or adjacent properties in actual physical contact or separated solely by a public roadway or other public right-of-way and under common ownership or common control, that emits or may emit any GHG.

However, subpart W includes distinctive definitions of facility for two industry segments: onshore petroleum and natural gas production and natural gas distribution. These two segments, particularly onshore petroleum and natural gas production, are a significant source of petroleum and natural gas GHG emissions but defining a facility for these two segments is not as straightforward as other industry segments covered under subpart W. Therefore, EPA determined that it was necessary and reasonable to define a unique facility for each of these two segments in order to ensure that the reporting facility is clear, to avoid double counting, and ensure appropriate emissions coverage.

The definition of natural gas distribution facility for this subpart is the collection of all distribution pipelines, metering stations, and regulating stations that are operated by a Local Distribution Company (LDC) that is regulated as a separate operating company by a public utility commission or that are operated as an independent municipally-owned distribution system”. This facility definition for natural gas distribution will result in 90 percent GHG emissions coverage of this industry segment.

The definition of an onshore petroleum and natural gas production facility for this subpart is all petroleum or natural gas equipment on a well pad or associated with a well pad and CO₂ enhanced oil recovery operations that are under common ownership or common control including leased, rented, and contracted activities by an onshore petroleum and natural gas production owner or operator and that are located in a single hydrocarbon basin as defined in 40 CFR 98.238. Where a person or entity owns or operates more than one well in a basin, then all onshore petroleum and natural gas production equipment associated with all wells that the person or entity owns or operates in the basin would be considered one facility. This facility definition for onshore petroleum and natural gas production will result in 85 percent GHG emissions coverage of this industry segment.

Do the facility definitions in this rule affect other EPA reporting requirements?

No. The definitions of “facility” in this rule do not impact requirements under other EPA regulations.

Costs

What is the estimated cost to implement this rule?

Under this rule, EPA estimates the total cost for the private sector will be approximately \$62 million for the first year and \$19 million in subsequent years, including the costs for non-reporters to make a reporting determination. The compliance costs for facilities that meet the reporting threshold (\$43 million in year one and \$18 in subsequent years) translates to an estimated average cost of about \$16,000 per facility for the first year and \$7,000 per facility in subsequent years. EPA estimates that the average cost of reporting is less than one tenth of one percent of the average facility's annual revenue..

What impact does this rule have on small businesses?

EPA expects that the majority of small businesses will not be affected as most fall below the 25,000 metric ton threshold and will not be required to report.

Relationship to Other Programs

How does this final rule relate to EPA's Natural Gas STAR program?

Since 1993, through the Natural Gas STAR Program, the U.S. EPA has been partnering with petroleum and natural gas companies to advance the adoption of cost-effective technologies and practices that improve operational efficiency and reduce emissions of methane, a potent GHG and clean energy source. The GHG reporting rule for petroleum and natural gas systems will complement industry efforts to reduce methane emissions through the Natural Gas STAR Program.

The data submitted under the GHG reporting rule will provide important information on the location and magnitude of GHG emissions from petroleum and natural gas systems which will allow petroleum and natural gas facilities to better track their own emissions. While this is not an emission reduction rule, the information collected under this reporting rule could be used to aid companies in further identifying cost effective opportunities to reduce emissions in the future.