

## FINAL MANDATORY REPORTING OF GREENHOUSE GASES RULE

The U.S. Environmental Protection Agency (EPA) issued the proposed rule for mandatory reporting requirements (MRR) of greenhouse gases (GHGs) on March 10, 2009 and received comments from the environmental community. EPA subsequently issued the final MRR for GHGs on September 22, 2009, which requires at least 30 emission source categories to report GHG emissions on an annual basis. These emission sources are to begin collecting GHG data on January 1, 2010, with the first annual GHG report due to EPA on March 31, 2011.

The first step toward compliance with the new MRR is to determine the applicability of the rule for each site. The second step is to determine the information that needs to be collected for the report. This PROVIsion provides a brief summary of these issues and discusses the general aspects of the GHG MRR.

### Major changes from the proposed rule

Major changes from the proposed rule include the following:

- Allowed facilities and suppliers not specifically identified in the source categories of 40 CFR §98.2(a) that report less than 25,000 metric tons (MT) of Carbon Dioxide Equivalent (CO<sub>2</sub>e) for 5 consecutive years or less than 15,000 MT of CO<sub>2</sub>e for 3 consecutive years, to cease submitting annual reports to EPA.
- Excluded manufacturers of light-duty vehicles and passenger trucks from this rule.
- Excluded Research and Development activities from reporting requirements.
- Allowed revisions to annual GHG reports, if needed, to correct errors.
- Changed the general records retention period from 5 years to 3 years.
- Added a population threshold to reduce the burden of determining applicability for manure management systems.
- Added a provision to allow use of best available data in lieu of the required monitoring method for January through March 2010. Facilities can request a date extension beyond March 2010, but EPA will not approve any requests for an extension beyond 2010.
- Revised monitoring options, monitoring locations, or allowed engineering calculations to reduce the need for installing new monitors.
- Reduced the required frequency of sampling and analysis for fuel combustion and several other source categories.
- Added calibration requirements for flow meters and other monitoring devices, including a five percent accuracy specification.
- Required more data to be reported, rather than kept as records, to allow EPA to verify emissions.
- Added exemptions for unconventional fuels, flares, hazardous wastes, and emergency equipment.
- Reduced the need for mass flow monitors for some units or fuels.
- Allowed facilities to aggregate the reporting of emissions from multiple smaller units rather than report emissions for each individual unit.

## Who must report GHGs?

Generally, the rule affects everyone from upstream production (e.g., suppliers of coal-base liquid fuels, petroleum products, natural gas and natural gas liquids, industrial GHGs, CO<sub>2</sub>) to downstream sources (e.g., general stationary fuel, combustion sources, electricity generation). Table 1 in the Preamble of the rule provides a comprehensive list of affected facilities by North American Industry Classification System (NAICS) codes. Each facility should examine the criteria in 40 CFR Part 98, Subpart A to verify applicability of the MRR rule.

Most sites emitting more than 25,000 MT CO<sub>2</sub>e per year are required to report GHG emissions under this rule. This reporting threshold is applicable to the majority of downstream sources. Other listed source categories, who must report their GHG emissions to EPA under 40 CFR §98.2(a), are as follows:

(1) Listed source categories without minimum reporting threshold [40 CFR §98.2(a)(1)]: A facility that contains any source category, defined in Subparts C through JJ of the rule, which include: (i) electricity generation, (ii) adipic acid production, (iii) aluminum production, (iv) ammonia manufacturing, (v) cement production, (vi) HCFC-22 production, (vii) HFC-23 destruction processes, (viii) lime manufacturing, (ix) nitric acid production, (x) petrochemical production, (xi) petroleum refineries, (xii) phosphoric acid production, (xiii) silicon carbide production, (xiv) soda ash production, (xv) titanium dioxide production, (xvi) certain municipal solid waste landfills, and (xvii) certain manure management systems.

(2) Listed source categories with 25,000 MT CO<sub>2</sub>e or more per year [40 CFR §98.2(a)(2)]: A facility that contains any source category, defined in Subparts C through JJ of the rule, which include: (i) ferroalloy production, (ii) glass production, (iii) hydrogen production, (iv) iron and steel production, (v) lead production, (vi)

pulp and paper manufacturing, and (vii) zinc production.

(3) Facilities that are not included in either (1) or (2) above and emit 25,000 MT CO<sub>2</sub>e or more per year in combined emissions and that have an aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility of 30 MMBTU/hr or greater. These facilities have to report GHG emissions from stationary fuel combustion sources only.

(4) All suppliers of coal-to-liquid products, petroleum refineries, natural gas and natural gas liquids, industrial GHGs, and CO<sub>2</sub>. Also, importers and exporters of these products with 25,000 MT CO<sub>2</sub>e or more.

## How does the 25,000 MT CO<sub>2</sub>e translate into fuel consumption?

25,000 MT CO<sub>2</sub>e generally represents 456 million standard cubic feet per year (MMSCF/yr) of natural gas, 10,512 short tons/yr of bituminous, or 2.63 million gallons per year of diesel either imported, exported, or combusted. The CO<sub>2</sub>e was calculated using the CO<sub>2</sub>e calculation formula (Equation A-1 of the rule) and Tier 1 Calculation Methodology of General Stationary Fuel Combustion Sources (Equation C-1 in Subpart C of the rule).

## What are the general monitoring, reporting, recordkeeping, and verification requirements?

The GHG report due March 31 each year shall contain: (1) for facilities, aggregated emission in MT of CO<sub>2</sub>e for all GHGs; (2) for suppliers, annual quantities of GHGs in MT of CO<sub>2</sub>e that would be emitted from combustion or use of the products supplied, imported, and exported including aggregated GHGs, each individual GHG, and combined fluorinated GHGs.

The report must be signed, dated, certified by the designated representative of the owner or operator, and submitted electronically.

Special provisions for reporting year 2010 include the best available monitoring methods (BAMM), which allow owners or operators to decide by January 30, 2010 whether it is feasible to acquire, install, and operate a required piece of monitoring equipment by April 1, 2010. EPA will not approve BAMM beyond December 31, 2010. Therefore, owners or operators must identify currently used monitoring methods, supplier data, engineering calculations, or other records as BAMM to request an extension of the use of BAMM by January 30, 2010.

EPA indicates that data verification will be reviewed by the agency. Such records must be retained by the facility for at least 3 years and include: a list of all units, operations, processes, and activities; the data used to calculate the GHG emissions; the annual GHG reports; missing data computations; and a written GHG monitoring plan [40 CFR §98.3(g)(5)]. The owner or operator has 45 days to revise the GHG report after discovering or being notified by EPA of errors in the report.

## Conclusion

Each owner or operator should review current facilities and practices and compare these against the current MRR requirements to determine necessary actions needed to ensure compliance with the BAMM (January 30, 2010) and the first annual GHG report (March 31, 2011) deadlines. For additional information, please call one of the Providence personnel listed below.

The highlights discussed above are a summary of the Final Mandatory Reporting of Greenhouse Gases Rule signed by the EPA administrator on September 22, 2009. For details related to the rule, refer to 40 CFR Part 98 and related subparts at:

<http://www.epa.gov/climatechange/emissions/qhgrulemaking.html>

EPA will host a number of MRR training sessions (in-person and Web-based). More information on this training can be found at:

<http://www.ep.gov/climatechange/emissions/training.html>

*For further questions concerning this rule and other air quality management issues, please contact:*

*Nimish Katwala at (972) 550 -9326 or Dr. Yousheng Zeng at (225) 766-7400.*



**PROVIDENCE**

[www.providenceeng.com](http://www.providenceeng.com)

---

PROvision is a publication of Providence Engineering and Environmental Group LLC. Every effort has been made to remain consistent with official statutes, regulations, policy, and guidance. If this article conflicts with a state or federal regulation or standard, then the regulatory language or standard prevails.

Copyright © 2009 by Providence Engineering and Environmental Group LLC