

# WHAT THE MANDATORY GHG REPORTING RULE MEANS TO MANUFACTURERS

January 1, 2010, marked the starting date for collecting emissions data. Learn what this U.S. EPA mandatory rule means to you.

By Rich Hovan, Manager, Environmental Solutions, Rockwell Software

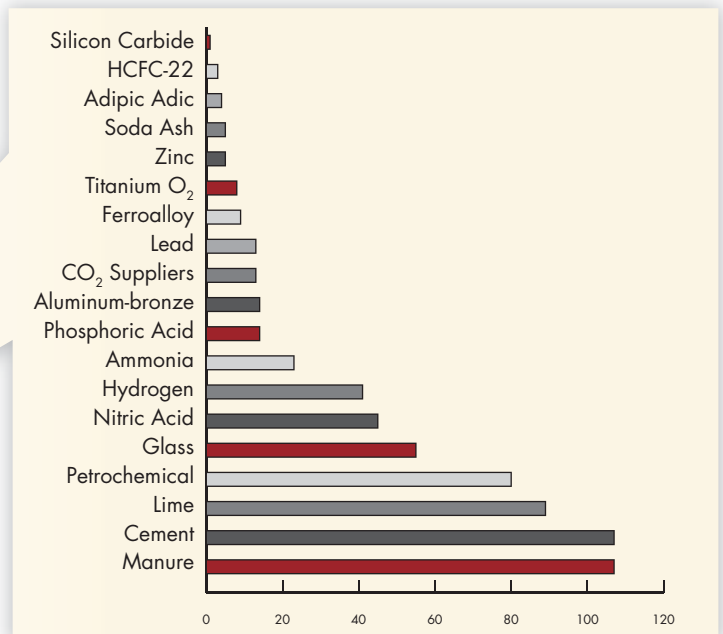
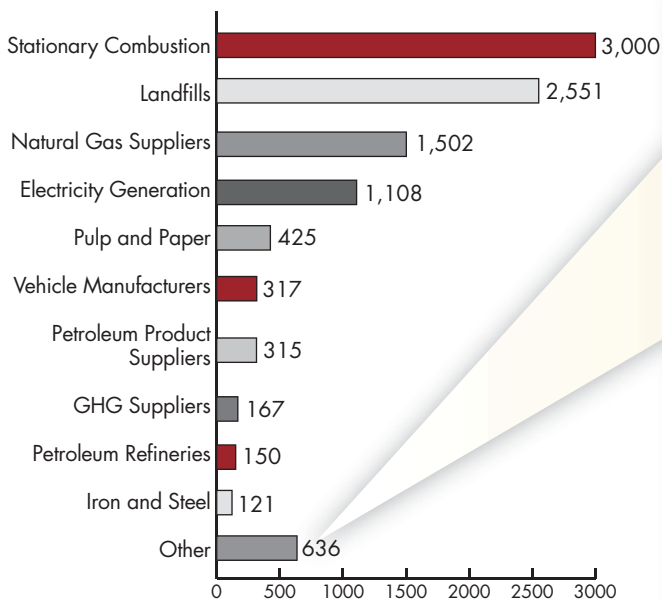
**>>** The U.S. EPA proposed the GHG reporting rule on April 10, 2009, culminating when the EPA's Administrator Lisa Jackson signed the "Mandatory Greenhouse Gas Reporting Rule" on September

22, 2009. Under the rule, suppliers of fossil fuels or industrial greenhouse gases (GHG), manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG, are required to submit

annual reports to the EPA. This article discusses how this affects North American manufacturers.

Facilities and suppliers began collecting data on January 1. The first emissions report is due on March

## >> About 10,000 U.S. Facilities Covered



The U.S. EPA estimates that 85% of U.S. GHG emissions and 10,000 companies will be covered under the Mandatory GHG Reporting Rule that took effect January 1.

31, 2011, for emissions during 2010. Manufacturers of vehicles and engines outside of the light-duty sector will begin reporting carbon dioxide (CO<sub>2</sub>) for model year 2011 and other GHGs in subsequent model years as part of existing EPA certification programs.

## Who is Covered Under the GHG Reporting Rule

The rule covers 85% of U.S. GHG emissions and 10,000 facilities, according to EPA estimates. It requires all reporters to self-certify the data prior to submittal, and third-party verifica-

tion isn't required.

The following source categories, or operations types, are covered under the GHG reporting rule:

- Electricity generation if they report CO<sub>2</sub> year-round through Part 75.
- Adipic acid production.
- Aluminum production.
- Ammonia manufacturing.
- Cement production.
- HCFC-22 production.
- HFC-23 destruction processes that are not collocated with a HCFC-22 production facility, and that destroy more than 2.14 metric tons of HFC-23 per year.
- Lime manufacturing.
- Nitric acid production.
- Petrochemical production.
- Petroleum refineries.
- Phosphoric acid production.
- Silicon carbide production.
- Soda ash production.
- Titanium dioxide production.
- Municipal solid waste landfills that generate methane (CH<sub>4</sub>) equivalent to 25,000 metric tons CO<sub>2</sub>e or more per year.
- Manure management systems with combined CH<sub>4</sub> and nitrous oxide (N<sub>2</sub>O) emissions in amounts equivalent to 25,000 metric tons of equivalent carbon dioxide (CO<sub>2</sub>e) or more per year. CO<sub>2</sub>e is a measure of the instantaneous value of the radiative forcing of the GHG concentration in the atmosphere.

In addition, the rule applies to any facility that contains a source category listed below and emits ≥ 25,000 metric tons of CO<sub>2</sub>e in a year from stationary fuel combustion units and miscellaneous use of carbonates:

- Stationary combustion units.  
Stationary fuel combustion sources are devices that combust any solid,

- liquid, or gaseous fuel generally to: 1) produce electricity, steam, useful heat or energy for industrial, commercial, or institutional use; or 2) reduce waste volume by removing combustible matter. These devices include boilers, combustion turbines, engines, incinerators and process heaters.
- Ferroalloy production.
- Glass production.
- Hydrogen production.
- Iron and steel production.
- Lead production.
- Pulp and paper manufacturing.
- Zinc production.

## What GHGs Must Be Reported?

Facilities must report annual CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions from each fuel combustion unit. For each unit, these emissions must be reported separately for each type of fuel combusted, including biomass fuels.

Facilities also must report any CO<sub>2</sub> emissions from sorbent use in air-pollution control equipment.

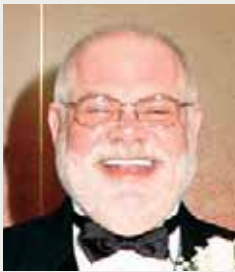
## How are Emissions Monitored?

Emission sources such as manufacturing facilities that are subject to the GHG reporting rule can use a hybrid approach to GHG monitoring. Some companies might already be required to collect and report emission data using continuous emissions monitors (CEMS) under other EPA program, such as the Acid Rain Program (ARP), New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP) and State Implementation Plans (SIP). Manufacturers have the option to use CEMS for other source categories not subject to these EPA programs.

The EPA is allowing companies to

## >> About Rich Hovan

Rich Hovan has more than 34 years of international experience in the combustion, safety, environmental instrumentation and air-pollution control equipment field. He has served on the U.S. EPA's



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technical review boards for Compliance Assurance Monitoring (CAM), Open Market Trading Rule (OMTR) and Medical Waste Incinerators (MWI). He participated in the Opacity Performance Specification rewrite, and has developed the first Conditional Performance Specification (CPS) for the EPA. He currently serves as manager of environmental solutions at Rockwell Software.

Hovan is an active member of the Institute of Clean Air Companies (ICAC); Air and Waste Management Association (A&WMA); Instrumentation, Systems and Automation Society (ISA); American Society of Mechanical Engineers (ASME); ASTM International Steel Manufacturer's Association; and American Society of Hospital Engineers.

use a source category-specific GHG-calculation method. Monitoring is based upon other parameters and fuel use, which could vary based on the specific source category (such as mass balance, site-specific emissions factor or default emissions factor).

### Special Provisions for 2010 Reporting Year

During the first calendar quarter of 2010, manufacturers can use best available monitoring methods for any parameter that can't be reasonably measured per the QA/QC requirements of the applicable rule subpart.

The GHG reporting rule allows facilities and suppliers to cease annual reporting by reducing their GHG emissions.

Examples of such parameters include fuel use or daily carbon content of feedstock by a process line.

The EPA is allowing this flexibility for manufacturers that otherwise are unable to install and operate a required piece of monitoring equipment. Facilities can request an extension beyond March 2010, but the EPA won't grant extensions beyond April 2010. Companies must submit their GHG emissions reports annually unless they're subject to acid rain provisions; those companies should continue to comply with quarterly reporting, and submit annual GHG emission reports.

**When Can Reporting Companies Exit the Program?**  
The GHG reporting rule allows fa-

cilities and suppliers to cease annual reporting by reducing their GHG emissions. Facilities can cease reporting after five consecutive years of emissions below 25,000 metric tons CO<sub>2</sub>e/year, or after three consecutive years of emissions below 15,000

metric tons CO<sub>2</sub>e/year. Companies also can cease reporting if the GHG-emitting processes or operations are shut down.

For more information about the new rule visit <http://bit.ly/7iSKK8>. □

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