SCS ENGINEERS

Greenhouse Gases Reporting Rule and Regulatory Update

Presented by SCS Engineers:
George R. Namie
843-746-8525

Presentation Agenda

- Overview of the GHG Reporting Rule
- Applicability
- Reporting, monitoring, and recordkeeping requirements
- Light-Duty Vehicle Proposed Rule
- Tailoring Rule

Company Overview

- SCS Engineers has been Providing Environmental Consulting Services Since 1970
- 650 Staff Members in over 43 Offices Nationwide
- Four Offices Located in the Carolinas
- Recognized as a Leader in all aspects of Environmental and Engineering Consulting

Overview of the GHG Reporting Rule

- Provide accurate and timely data to inform future climate change policies and programs
- Better understand relative emissions of specific industries, and of individual facilities within those industries
- Better understand factors that influence GHG emission rates and actions facilities could take to reduce emissions
- Important note, the rule does not require control of GHG

Overview of the GHG Reporting Rule

- Final EPA Rule Issued Sept 09
- Affects Large GHG Sources
- 25,000 Metric Tons CO2eq
- Intended to Guide Future Policy to Reduce GHG Emissions
- Rule Includes Reporting for 31 Source Categories
- Estimated that over 10,000 Facilities are covered by this rule

Overview of the GHG Reporting Rule

What Gases are Reported?

- CO_2
- CH_4 (methane)
- N_2O (nitrous oxide)
- Fluorinated GHGs

  HFCs (hydrofluorocarbons)

  PFCs (perfluorocarbons)

  SF_6 (sulfur hexafluoride)

  Other Fluorinated gases

Overview of the GHG Reporting Rule

What is CO2e?

- GHGs have varying heat-trapping ability and atmospheric lifetimes
- Global warming potential (GWP) is a metric used to compare emissions among GHGs
- The GWP of CO_2 is 1.0, and the GWP of other GHGs are expressed relative to CO_2
- For example, CH_4 has a GWP of 21, each metric ton of CH_4 emissions would have 21 times as much impact on global warming as a metric ton of CO_2 emissions
- Mass emissions x GWP= CO_2e (metric tons)

Overview of the GHG Reporting Rule

What are the sources of GHGs?

- Fossil fuel and Biomass combustion (CO_2, CH_4, N_2O)
- Industrial Process, e.g., gas leaks (CH_4), calcination of minerals (CO_2), chemical process vents (CO_2, CH_4, N_2O)
- Anaerobic waste treatment, landfills (CH_4), manure management (CH_4, N_2O)

Overview of the GHG Reporting Rule

Timeline

- Rule published in the Federal Register Friday, October 30, 2009
- Final rule effective December 29, 2009
- GHG emissions inventory begins January 1, 2010
- Monitoring Plan in place by January 1, 2010
- EPA has granted extension of monitoring devices for one quarter (until March 31, 2010)
- GHG emissions tabulated on monthly basis
- Report due to EPA for year 2010 by March 31, 2011
- EPA to develop electronic reporting system
- Reporting to continue for 3-5 years

Applicability

- Source Category Specific
  - ‘All-in Source Categories’, ex. Aluminum production, cement production, municipal solid waste landfills
  - ‘Threshold Source Categories’, ex. Glass production, iron and steel production, pulp and paper manufacturing’
  - ‘Stationary Combustion Units’, ex. Boilers, process heaters, incinerators

Applicability

- If your source is listed as an ‘All-in Source’, the rule is applicable!!!
- If your source is listed as a ‘Threshold Source’, the rule is applicable if combined CO2e is greater than 25,000 metric tons/yr
- If your source is a ‘Combustion Unit’, the rule is applicable if the maximum rated heat input capacity is greater than 30 mmBtu/hr
- Applicability Tool (combustion calculator) provided by EPA

Reporting, Monitoring, and Recordkeeping Requirements

- Subpart A: General Provisions
- Schedule
- Reporting and Recordkeeping requirements common to all sources
- Definitions
- Report submission procedures
- Calibration procedures, monitoring plan, etc.

Reporting, Monitoring, and Recordkeeping Requirements

- Subparts C-PP Source Specific Requirements
- Calculation methods
- Monitoring and QA/QC
- Missing Data procedures
- Reporting and recordkeeping elements for each subpart

Reporting, Monitoring, and Recordkeeping Requirements

- General Monitoring Approaches
- Continuous emission monitoring systems (CEMS)
- Monitor process parameters, fuel use
- Mass balance calculation, site-specific emission factors, default emission factors

Reporting, Monitoring, and Recordkeeping Requirements

- For the period 1/1/10 through 3/31/10 Best Available Monitoring Methods can be used
- Applicable monitoring QA/QC requirements begin April 1, 2010
- Provision in place to request an extension, but must file by December 31, 2010

Reporting, Monitoring, and Recordkeeping Requirements

- Rule published in the Federal Register Friday, October 30, 2009
- Final rule effective December 29, 2009
- GHG emissions inventory begins January 1, 2010
- Monitoring Plan in place by January 1, 2010
- EPA has granted extension of monitoring devices for one quarter (until March 31, 2010)
- GHG emissions tabulated on monthly basis
- Report due to EPA for year 2010 by March 31, 2011
- EPA to develop electronic reporting system
- Reporting to continue for 3-5 years

Summary

- If you haven't determined your GHG Reporting Rule applicability, the time is now, the clock has started
- Subpart C- Stationary Fuel Combustion Sources may be your source for applicability
- 25,000 CO2e is really a small amount, please review your emission sources

Other GHG Proposed Rules

- Greenhouse Gas Emission Standards for Light Duty Vehicles- Proposed September 2009
- PSD and Title V Greenhouse Gas and Tailoring Rule- proposed October 2009