



REGULATORY ALERT

Mandatory Federal Greenhouse Gas Reporting October 2009

Facilities emitting Greenhouse Gases (GHG) in excess of 25,000 metric tons must begin tracking emissions in 2010 and begin reporting in 2011.

While the Congressional debate over the American Clean Energy and Security Act (ACES or cap and trade) bill continues, USEPA has finalized and issued (on September 22, 2009) the **Final Mandatory Reporting of Greenhouse Gases Rule** as 40 CFR Part 98 that will require GHG reporting starting in calendar year 2011.

It is vitally important to understand the "GHG footprint" of your operations to determine whether they will be subject to these reporting requirements. Further, understanding your facility's emissions may be important to your business expansion decisions and the key to understanding the financial exposure associated with a possible need to obtain emission allowances, should a cap and trade program be enacted.

Due to its scope and complexity, the final rule is difficult to summarize: the preamble and text of the proposed regulations are over 1,300 pages in length. From a planning perspective, potentially affected facilities should immediately begin a GHG inventory to estimate their current annual emissions and forecast future emissions to determine if they will be subject to the final rule and also determine the alternative scenarios that could require reporting. For example, although the rule specifies an emission threshold of 25,000 metric tons of carbon dioxide equivalent emission (MTCE), that threshold could be lowered, possibly by individual states.

KEY DATES

- **January 1, 2010** - Initiate thorough GHG recordkeeping that conforms to the rule.

- **March 31, 2011** - Calendar year 2010 inventories are due, except for vehicle and engine manufacturers, who are required to begin reporting for the 2011 model year.

- **Year 2011** - Possible allocation of emission allowances.

- **Year 2012** - GHG emission allowances must be secured by affected sources if cap and trade is enacted.

WHO MUST REPORT?

In general, the final GHG reporting rule applies to facilities that emit more than 25,000 metric tons (27,588 short tons) of "carbon dioxide equivalents" (CO₂-e) per year and to fuel suppliers, importers, or exporters. These are direct emissions only and do not include rolling stock or electricity / indirect emissions.

CO₂-e includes carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and certain fluorinated compounds,

each of which have different global warming potentials (e.g., N₂O as a GHG is 310 times more potent than CO₂). These are gases that are not usually inventoried under current air operating permits.

The rule also requires that once a facility or supplier becomes subject to the requirements of Part 98 (is a covered source category or emits ≥25,000 MTCE), the facility or supply operation must continue for each year thereafter to comply with all requirements of the rule, including the requirement to submit GHG emission reports, even if the facility or supplier does not meet the applicability requirements in a future year. If the reported emissions are less than 25,000 MTCE for 5 consecutive years or less than 15,000 MTCE for 3 consecutive years, the facility may discontinue complying with the rule once the proper notification has been submitted.

USEPA has proposed four groups of reporters:

1. Facilities that contain one or more specific source categories, *usually regardless of actual emissions*:

- **Electricity Generation Facilities** - Part 75 affected units; stations with units that collectively emit ≥25,000 MTCE/yr
- **Industrial** - Aluminum, Cement, Lime, and Various chemicals, including Adipic acid, Ammonia, Nitric acid, Phosphoric acid, Silicon Carbide, Soda ash, Titanium dioxide, HCFC-22 production, and certain electronics manufacturers
- **Oil & Gas** - Petrochemical production, Petroleum Refineries
- **Other** - Certain Municipal Landfills, certain HFC-23 destruction facilities
- **Agriculture** - Manure management ≥25,000 MTCE

2. Any facility that emits ≥25,000 metric tons CO₂-e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and from specific source categories that are located at the facility in any calendar year starting in 2010. Categories include:

- Ferroalloy Production
- Hydrogen Production
- Glass Production
- Pulp & Paper Manufacturing
- Iron, Steel, Lead, & Zinc Production

3. Any facility that in any calendar year starting in 2010 meets all three of the following conditions: (i) the facility does not contain any source category listed above; (ii) the aggregate heat input capacity is ≥30 mmBtu/hr; and (iii) the facility emits ≥25,000 metric tons CO₂e per year from all stationary fuel combustion sources.

4. Suppliers of any of the following products or fuels in any calendar year starting in 2010:

- Coal & Coal-based liquid fuels
- Natural gas & natural gas liquids
- Petroleum products
- Certain producers, importers, & exporters of industrial GHGs

Exempt sectors and categories include: mobile source fleet operators; indirect emissions from electric purchases; emergency generators; and portable combustion sources.

CALCULATIONAL REQUIREMENTS

Records of annual fuel combustion and other key parameters (e.g., refrigerant usage) combined with GHG emissions factors will, in many instances, provide an acceptable GHG emissions report for complying with Part 98. The rule provides explicit calculational methodologies and emission factors for a variety of conventional fuels, processes, and source categories. For most facilities that will be subject to the reporting rule, only direct emissions from fuel combustion (e.g., natural gas, propane, oil, diesel, gasoline, coal) from stationary sources (do not include rolling stock) at a facility as well as evaporative losses of refrigerants or other regulated gases will be reportable. Blends of biofuels will require unique analyses.

REPORTING AND RECORDKEEPING

Entities covered by the rule will be required to electronically file their annual reports which will be signed by a "Designated Representative" of the owner or operator, certifying under penalty of law that the report has been prepared in accordance with the requirements of the rule. This is similar to the reporting provisions of USEPA's Acid Rain rules at 40 CFR Part 75. USEPA would verify the data submitted.

The extent of recordkeeping will vary dramatically with the nature of the source category. For example, facilities with sources limited to commercial and industrial boilers burning only natural gas or fuel oil would have very limited documentation requirements. Other facilities may need to use and maintain continuous emission monitors to calculate emissions and also keep detailed records of raw materials used and production of product.

Affected facilities will be required to maintain records for three years in electronic or hard copy format. This will include fuel and raw material use, emission factors used, calculations, methodologies, operational data, names of personnel involved in calculating and reporting the GHG emissions, logbooks, and written quality assurance performance plan.

HOW TO PLAN FOR GHG REGULATIONS?

Because of the final rule's complexity, its extensive recordkeeping requirements, and the importance of accuracy (especially if cap and trade is enacted), every facility potentially subject to this rule should initiate inventory planning now to ensure that its emissions accounting system is complete, tested, and in place no later than December 31, 2009. We suggest the following:

- Review source types and facilities that will be subject to GHG reporting and to a lesser extent, emerging GHG cap and trade legislation;
- Review Part 98 recordkeeping, monitoring, and reporting regulations that pertain to affected source categories;
- Draft GHG Monitoring Plan and Quality Assurance / Quality Control Plan;
- Review the legal and contractual requirements of the Designated Representative (and Alternate) and identify candidates for these positions;
- Assure the necessary and appropriate hardware (CEMS, fuel meters, etc.) is in place and functioning;
- Prepare initial GHG emissions inventories for each facility;
- Based on the initial inventories, evaluate options that may allow facilities to become exempt from reporting; and
- Given the continued interest in sustainability and carbon footprints, consider participation in voluntary GHG management and reporting programs like USEPA Climate Leaders.

USEPA CLIMATE LEADERS PROGRAM

Facilities that do not become subject to Part 98 may voluntarily report their GHG emissions under an existing program. Climate Leaders is an industry-government, non-regulatory partnership that works with companies to voluntarily develop comprehensive corporate climate change strategies. Partner companies voluntarily commit to reducing their impact on the global environment by completing a corporate-wide inventory of their greenhouse gas emissions based on a quality management system, setting reduction goals, and annually reporting their progress to USEPA. Through program participation, companies create a credible record of their accomplishments and receive USEPA recognition as corporate environmental leaders.

Quite different from the Part 98 rules, Climate Leaders Partners estimate GHG emissions from (1) direct combustion from mobile and stationary sources; (2) indirect emissions from energy (electricity) purchases; and, optionally, (3) upstream GHG emissions associated with production of raw materials, business travel, employee commuting, and downstream GHG emissions associated with distribution and use of products by customers.

Many leading US firms participate in this voluntary program as an element of their sustainability efforts.

For information or assistance in estimating GHG emissions and potential impacts on your operations, please contact Liberty Environmental, Inc. at (610) 375-9301 or contact:

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