

Final Mandatory GHG Reporting Rule: Overview



Outline



- Congressional Request
- Design Elements of Final Rule
- Other Major Changes from Proposed Rule
- Other Key Issues
- For More Information
- Appendices

Appropriations Language



FY08 Omnibus Appropriations, signed Dec 26, 2007:

“... not less than \$3,500,000 shall be provided for activities to develop and publish a draft rule not later than 9 months after the date of enactment of this Act, and a final rule not later than 18 months after the date of enactment of this Act, to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy...”

Accompanying Explanatory Statement:

The Agency shall "use its existing authority under the Clean Air Act" to develop a mandatory GHG reporting rule. "The Agency is further directed to include in its rule reporting of emissions resulting from upstream production and downstream sources, to the extent that the Administrator deems it appropriate. The Administrator shall determine appropriate thresholds of emissions above which reporting is required, and how frequently reports shall be submitted to EPA. The Administrator shall have discretion to use existing reporting requirements for electric generating units under Section 821 of the Clean Air Act....“

FY09 Omnibus Appropriations, signed March 11, 2009:

"Of the funds provided in the Environmental Programs and Management Account, not less than \$6,500,000 shall be used for activities to develop and publish a final rule not later than June 26, 2009, and to begin implementation, to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy of the United States, as required by Public Law 110-161."

Design Elements of Final Rule



- Source Category Coverage
- Level of Reporting
- Reporting Thresholds
- Reporting Methodology
- Reporting Frequency
- Verification

Source Categories in the Final Rule*



Upstream Sources	<ul style="list-style-type: none"> • Suppliers of Coal-based Liquid Fuels • Suppliers of Petroleum Products • Suppliers of Natural Gas and Natural Gas Liquids • Suppliers of Industrial GHGs • Suppliers of Carbon Dioxide (CO₂)
Downstream Sources	<ul style="list-style-type: none"> • General Stationary Fuel Combustion Sources • Electricity Generation • Adipic Acid Production • Aluminum Production • Ammonia Manufacturing • Cement Production • Ferroalloy Production • Glass Production • HCFC-22 Production and HFC-23 Destruction • Hydrogen Production • Iron and Steel Production • Lead Production • Lime Manufacturing • Miscellaneous Uses of Carbonates • Nitric Acid Production • Petrochemical Production • Petroleum Refineries • Phosphoric Acid Production • Pulp and Paper Manufacturing • Silicon Carbide Production • Soda Ash Manufacturing • Titanium Dioxide Production • Zinc Production • Municipal Solid Waste Landfills • Manure Management
Mobile Sources	<ul style="list-style-type: none"> • Vehicles and engines outside of the light-duty sector (light-duty in NPRM to <i>Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Fuel Economy Standards</i>)

* We delayed inclusion of the following source categories as we consider the comments and options: Electronics Manufacturing, Ethanol Production, Fluorinated GHG Production, Food Processing, Magnesium Production, Oil and Natural Gas Systems, Sulfur Hexafluoride (SF₆) from Electrical Equipment, Underground Coal Mines, Industrial Landfills, Wastewater Treatment, Suppliers of Coal

Level of Reporting



- Facility based reporting for all source categories for which there are methods
- Limited exceptions for a few reporters (e.g. fuel importers, vehicle and engine manufacturers outside of the light-duty sector)
- **No major changes from proposed rule**

Reporting Thresholds



- Emissions-based threshold of 25,000 metric tons of carbon dioxide equivalent (CO₂e) per year for most sources (other than mobile sources)
- Capacity-based threshold, where appropriate and feasible
- Approximately 85% of total U.S. greenhouse gas emissions covered by rule (about 10,000 reporters)
- **No major changes from proposed rule**

How much is 25,000 MTCO₂e?



- Equivalent to:
 - Annual greenhouse gas emissions from the energy use of approximately 2,300 homes
 - Annual greenhouse gas emissions from approximately 4,600 passenger vehicles
- Majority of commercial building owners not likely to meet reporting threshold
- Applicability Tool available online to help facilities assess whether they are required to report

Reporting Methodologies



- **Hybrid of direct measurement and facility-specific calculation**
 - Facilities already reporting and collecting emissions data (e.g., under the Acid Rain Program) must use direct measurement of emissions
 - Other source categories can use facility-specific calculations
 - Generally, vehicle/engine manufacturers will use existing certification and test protocols
 - Industrial gas and fossil fuel suppliers use direct reporting of gas produced, imported and exported
- **Major changes from the proposed rule**
 - Best available monitoring methods may be used during January 1, 2010 through March 31, 2010
 - Streamlined and reduced reporting burden regarding required methodologies

Reporting Frequency



- **Annual Reporting to EPA**
 - Data collection will begin January 1, 2010 with first reports submitted to EPA March 31, 2011.
 - Exception: Those facilities already reporting quarterly for existing mandatory programs (e.g., Acid Rain Program) will continue to report quarterly
- **Major changes from the proposed rule**
 - Added mechanism to allow facilities and suppliers that report less than 25,000 metric tons of CO₂e for 5 consecutive years, or less than 15,000 metric tons of CO₂e for 3 consecutive years, to cease submitting annual reporting to EPA
 - Added mechanism to allow facilities and suppliers that shut down GHG-emitting processes or operations covered by rule to cease annual reporting to EPA

Emissions Verification



- EPA verification
 - Reporters will self-certify and submit emissions and activity data necessary for verification
 - Electronic verification and targeted audits
- EPA can take enforcement action for non-compliance
- Approach consistent with most EPA Programs
- **No major changes from the proposed rule**

Mobile Sources



- Emissions from mobile sources will be captured by reports from fuel suppliers and manufacturers of vehicles and engines (outside of the light-duty sector)
 - No requirements for fleet operators or state and local governments
- Manufacturers of vehicles and engines – including heavy-duty trucks, motorcycles, and nonroad engines – will report CO₂ starting with model year 2011 and other GHGs in subsequent model years
- Rule amends existing mobile source regulations to integrate GHG reporting into long-standing criteria emissions testing and certification programs
- **Major changes from proposal:**
 - Manufacturers of light-duty vehicles and passenger trucks are not subject to this rule
 - More flexibility in CH₄ and N₂O requirements, including waiver provision
 - Postponed CH₄ and added NO_x requirement for aircraft engine manufacturers

Estimated Rule Costs



- Expected cost to the private sector to comply with the reporting requirements:
 - \$115 million for the first year
 - \$72 million annualized costs for subsequent years
- Estimated cost of reporting for small businesses will be less than 1% of the average annual sales

Confidential Business Information



- EPA will protect any information claimed as confidential business information (CBI) in accordance with regulations in 40 CFR Part 2, subpart B
- In general, emissions data collected under CAA sections 114 and 208 shall be available to the public and cannot be withheld as CBI
- EPA will undertake a separate notice and comment process next year on CBI status of data elements collected (comments received on the proposed rule will be considered as we develop the notice)

Relationship to Other EPA Actions



- Rule developed under CAA 114 and 208 in response to a Congressional mandate under the FY2008 Consolidated Appropriations Act
- Collecting this information under the CAA:
 - Does not require an endangerment finding
 - Does not make greenhouse gases a regulated pollutant under the Prevention of Significant Deterioration (PSD) program
- Other Actions:
 - NPRM to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Fuel Economy Standards (signed September 15, 2009)
 - “Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act” (74 FR 18886, April 24, 2009)
 - Reconsideration of “EPA’s Interpretation of Regulations that Determine Pollutants Covered By Federal Prevention of Significant Deterioration (PSD) Permit Program” (73 FR 80300, December 31, 2008)
 - Granted California’s request for a waiver for its GHG vehicle standard (74 FR 32744, July 8, 2009)

Relationship to State & Regional Programs



- Rule does not preempt States from regulating or requiring reporting of GHGs
 - EPA rule is a limited action developed in response to a specific request from Congress and is narrower in focus than many existing State programs that are coupled with reduction programs.
- No state delegation
- Reporting entities will report directly to EPA
 - To reduce reporting burden, EPA staff is working with States, The Climate Registry and the Exchange Network on a data exchange standard
 - EPA is committed to working with State and Regional programs to provide timely access to verified emissions data, establish mechanisms to share data efficiently, and harmonize data systems to the extent possible

Electronic Data System



- Electronic formatted system under development
- Web-based system
 - Will guide reporters through data entry and submission
- Mechanism to submit file directly using standard format (e.g., XML)
- Continued stakeholder input during system development
- Outreach, training, and hotline to assist reporters using the system

Technical Assistance



- On-line applicability tool:
 - Assists potential reporters in assessing whether they are required to report
- Technical assistance materials (e.g., Information Sheets on rule subparts and Technical Support Documents)
- EPA will host several trainings and webinars
- Telephone hotline
- For complete list of materials and training schedule, see: www.epa.gov/climatechange/emissions/ghgrulemaking.html

Technical Support Documents



- EPA has developed a technical support document for each subpart in the rule, as well as other general technical support documents

Subpart under 40 CFR part 98	Title
C	General Stationary Fuel Combustion Sources
D	Electricity Generation
E	Adipic Acid Production
F	Aluminum Production
G	Ammonia Manufacturing
H	Cement Production
I	Electronics Manufacturing
J	Ethanol Production
K	Ferroalloy Production
L	Fluorinated Greenhouse Gas Production
M	Food Processing
N	Glass Manufacturing
O	HCFC-22 Production and HFC-23 Destruction
Et Cetera	

Training Schedule



- Remaining Overview Webinars
 - October 27, 2009, 3:30 – 5:30 pm EDT
- Remaining Detailed Webinars
 - October 29, 2009, 3:30 – 5:30 pm EDT
- Applicability Tool Training Webinar
 - October 22, 2009, 3:30 – 4:30pm EDT
- Regional One-day Live Training Sessions
 - Region 4, Atlanta, GA: To be announced
 - Region 5, Chicago, IL: To be announced
 - Region 6, Dallas, TX: To be announced
 - Region 9, San Francisco: To be announced

Depending on interest, additional Webinars may be scheduled.

<http://epa.gov/climatechange/emissions/training.html>

For More Information



- Preamble and final regulatory text available at our website
 - www.epa.gov/climatechange/emissions/ghgrulemaking.html
 - After publication in the FR at www.regulations.gov
- Additional information including a training schedule:
www.epa.gov/climatechange/emissions/ghgrulemaking.html
- Hotline:
 - Telephone: 1-877-GHG-1188
 - Email: GHGMRR@epa.gov

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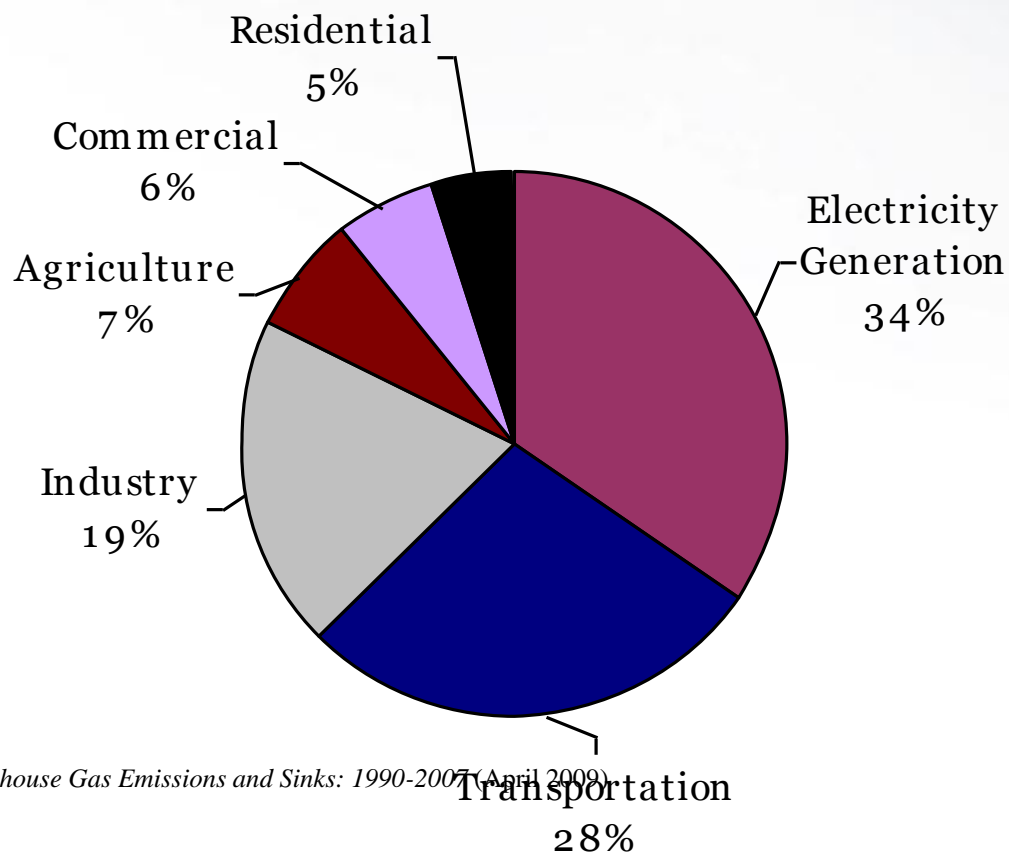


APPENDICES

Appendix A: U.S. GHG Emissions (2007)



Emissions (CO₂e) Allocated to Economic Sectors



Source: *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007* (April 2009)

Appendix B: Rule Summary



- Reporter:
 - Facility based reporting for all source categories for which there are methods
 - Limited exceptions for a few reporters (e.g. fuel importers, vehicle and engine manufacturers outside of the light-duty sector)
- Threshold:
 - A facility that meets the general emissions threshold of 25,000 metric tons or more of CO₂e/year reports all source categories for which there are methods in the rule
 - Capacity thresholds where feasible
- Methodology:
 - Direct measurement of stationary combustion source categories where data currently collected (e.g., CO₂ emissions from EGUs in Acid Rain Program)
 - Facility-specific calculation methods for other source categories at the facility
- Frequency: Annual
 - Facilities already reporting similar data more frequently to other mandatory programs (e.g., Acid Rain Program) continue current practice
- Verification: EPA verifies reports
 - Reporter self-certifies emissions data and other specified activity data and submits to EPA who performs verification of reports

Appendix C: Other Major Changes From Proposal



- **Sampling Frequency**. For fuel combustion and some other source categories, reduced the required frequency for sampling and analysis.
- **Exemption**. Excluded R&D activities from reporting.
- **Quality Assurance**. Added calibration requirements for flow meters and other measuring devices, including a five percent accuracy specification.
- **Report Revision**. Added provision to require submittal of revised annual GHG reports if needed to correct errors.
- **Records Retention**. Changed the general records retention period from 5 years to 3 years.
- **Verification**. In several subparts, required more data to be reported rather than kept as records to allow EPA to verify reported emissions.
- **Combustion Sources**. Added exemptions for unconventional fuels, flares, hazardous wastes, and emergency equipment. Reduced the need for mass flow monitors for some units or fuels. Allowed more facilities to aggregate reporting of emissions from smaller units rather than report emissions for each individual unit.
- **Manure Management Systems**. Added a population threshold to reduce the burden of determining applicability. Reduced the monitoring requirements. Provided lookup tables to ease reporting.

Appendix D: Clean Air Act Authority (1)



CAA Section 114

Recordkeeping, inspections, monitoring and entry: For the purpose of “...(iii) carrying out any provision of this chapter...(1) The Administrator may require any person who owns or operates any emission source, who manufactures emission control equipment or process equipment, who the Administrator believes may have information necessary for the purposes set forth in this subsection, or who is subject to any requirement of this chapter (other than a manufacturer subject to the provisions of section 7525(c) or 7542 of this title with respect to a provision of subchapter II of this chapter) a one-time, periodic or continuous basis to-(A) establish and maintain such records; (B) make such reports; (C) install, use and maintain such monitoring equipment and use such audit procedures, or methods; (D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods and in such manner as the Administrator shall prescribe); (E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical; (F) submit compliance certifications in accordance with subsection (a)(3) of this section; and (G) provide such other information as the Administrator may reasonably require.”

Appendix D: Clean Air Act Authority (2)



CAA Section 208

Information Collection: “ Every manufacturer of new motor vehicles or new motor vehicle engines, and every manufacturer of new motor vehicle or engine parts or components, and other persons subject to the requirements of this part or part C of this subchapter, shall establish and maintain records, perform tests where such testing is not otherwise reasonably available under this part and part C of this subchapter, make reports and provide information the Administrator may reasonably require to determine whether the person has acted or is acting in compliance with this part and part C of this subchapter and regulations thereunder, or to otherwise carry out the provision of this part and part C of this subchapter, and shall, upon request of an officer or employee duly designated by the Administrator, permit such officer or employee at reasonable times to have access to and copy such records.”

Appendix E: Outreach Meetings Held



Meetings held with over 250 different groups including:

- States, state- or regional-based groups: CA, CT, NM, IA, WA, IL, NJ, MA, TCR
- Tribes: Tribal Air Caucus, National Tribal Air Assoc.
- Trade Associations: Edison Electric Institute, American Chemistry Council, Portland Cement Assoc., National Petrochemical & Refiners Assoc., National Mining Assoc, American Forests and Paper Assoc.
- NGOs: WRI, Pew