

Greenhouse Gas Reporting Program

Overview



Agenda



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 - Purpose of Rule
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Background



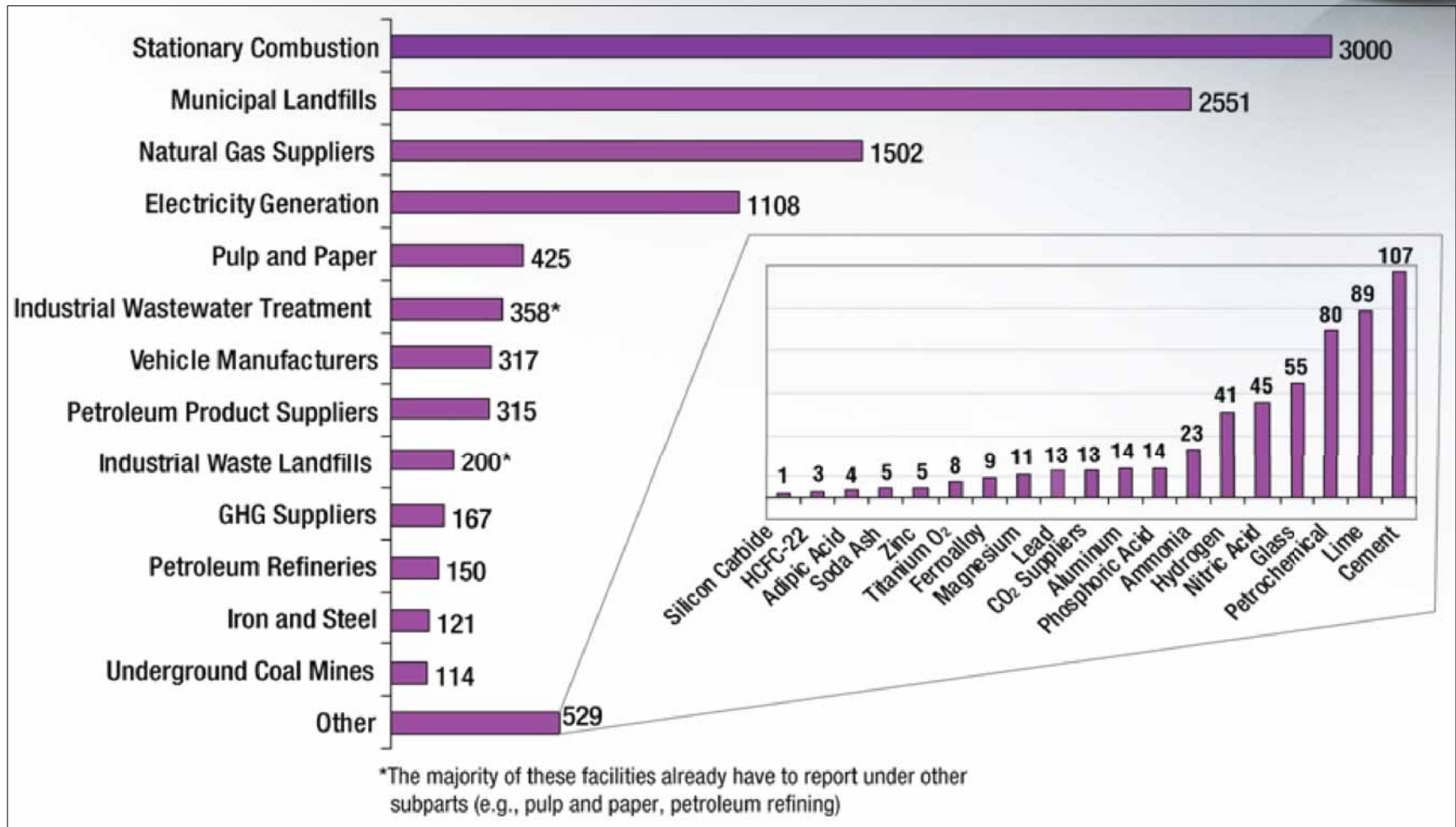
- Directed by Congress in 2008 Appropriations Act
- Proposed April 10, 2009
- 40 CFR Part 98 published in Federal Register October 30, 2009
- Additional source categories added on July 12, 2010 (affects reporting starting in 2011)

Purpose of the Rule



- Requires reporting of greenhouse gas (GHG) emissions from all sectors of the economy in the United States
- Provides accurate and timely data to inform future climate change policies and programs
- Does not require control of GHG

About 10,000 U.S. Facilities Covered



Key Elements of the Rule



- Annual reporting of GHG by:
 - 29 source categories
 - 5 types of suppliers of fuel and industrial GHG
 - Motor vehicle and engine suppliers (except light duty sector)
- 25,000 metric tons CO₂e per year reporting threshold for most sources; capacity-based thresholds where feasible
- Monitoring begins January 1, 2010; first reports due March 31, 2011
- Direct reporting to EPA electronically
- EPA verification of emissions data

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

What GHGs are Reported?



- CO_2
- CH_4 (methane)
- N_2O (nitrous oxide)
- Fluorinated GHGs
 - HFCs (hydrofluorocarbons)
 - PFCs (perfluorocarbons)
 - SF_6 (sulfur hexafluoride)
 - Other fluorinated gases

Who Reports?



- 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)

What is a facility?



A facility is defined as...

- Physical property, plant, building, structure, source, or stationary equipment located on one or more contiguous or adjacent properties;
- in actual physical contact or separated solely by public roadway or other public right of way;
- under common ownership or common control; and
- that emit or may emit GHGs.

Military installations may be classified as more than one facility.

How Does a Facility Assess Applicability?



- A facility can have multiple source categories.
- A facility must evaluate each source category to assess applicability to the rule.
 - “All-in” source categories: All of the facilities that have an “all-in” source category within their boundaries are subject to the rule.
 - Threshold categories: Aggregate these categories to assess the 25,000 metric tons CO₂e per year reporting threshold
- If rule applies, report emissions for all source categories for which methods are provided in the rule.

All-in Source Categories



Electricity Generation if report CO₂ 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 CH₄ equivalent to 25,000 metric tons CO₂e or more per year

Manure Management Systems¹ that emit 25,000 metric tons CO₂e or more per year

Underground Coal Mines² that are subject to quarterly sampling by MSHA

¹ EPA will not be implementing the manure management rule due to a Congressional restriction

²Applies in reporting year 2011 and beyond.

Threshold Source Categories



Ferroalloy Production

Glass Production

Hydrogen Production

Industrial Wastewater²

Treatment [Located at
petroleum refineries, pulp and
paper mills, food processing
operations, ethanol production]

Industrial Waste Landfills²

Iron and Steel Production

Lead Production

Magnesium Production²

Pulp and Paper

Manufacturing

Zinc Production

¹ $\geq 25,000$ metric tons CO₂e per year from all source categories, combustion units, and miscellaneous use of carbonates.

² Reporting applies in year 2011 and beyond.

Source Categories Not Included in Current Rule



EPA plans to further review public comments and other information before deciding on these subparts:

- CO₂ injection
- Electrical equipment manufacture and refurbishment
- Electronics manufacturing
- Fluorinated GHG production
- Geologic sequestration
- Import/export of pre-changed equipment and closed cell foams
- Oil and natural gas systems
- Sulfur hexafluoride (SF₆) from electrical equipment
- Suppliers of coal

Facilities with these source categories could be covered by the rule based on GHG emissions from stationary fuel combustion sources.

What Suppliers Are Covered?



- All producers of:
 - Petroleum products
 - Coal-based liquids
 - Industrial GHGs (F-GHG and N₂O)
 - CO₂
- Exporters of 25,000 metric tons CO₂e per year
- Importers of 25,000 metric tons CO₂e per year
- Natural gas and natural gas liquids
 - All fractionators
 - All local gas distribution companies

What do Suppliers Report?



- Quantity of each product introduced into the economy (e.g., barrels, tons)
- GHG emissions associated with:
 - 100% oxidation of fuels (CO₂e)
 - 100% release of gases (CO₂e)

How are Emissions Monitored?



General Approach:

- **Continuous emission monitoring systems (CEMS)**
 - Required if already used (e.g., NSPS, Acid Rain Program) and meet specified criteria
 - Optional for other sources
- **Source category-specific GHG calculation methods**
 - Monitor process parameters, fuel use
 - Calculate GHG using equations in applicable subparts
 - Example approaches (varies by source category)
 - Mass balance calculation
 - Site-specific emission factors
 - Default emission factors

Monitoring Plan



- Identifies responsibilities (i.e., job titles) for data collection
- Explains processes and methods used for data collection
- Describes QA/QC procedures for monitors
- May rely on references to existing corporate documents (e.g., standard operating procedures)
- Not a reporting requirement, but must be prepared by April 1, 2010

Special Provisions for 2010: Best Available Monitoring Methods



- Best available monitoring methods may be used during January 1, 2010 through March 31, 2010
 - Use emission estimation equations provided in the rule
 - Obtain equation inputs using best available monitoring method (e.g., current monitoring methods, engineering calculations, company data)
- Must begin following all applicable monitoring and QA/QC requirements on April 1, 2010
- If extension is needed (equipment purchase, process unit shutdown etc.), facility may request an extension.
 - Extension request must have been submitted to EPA no later than January 28, 2010.
 - No extension will be granted beyond December 31, 2010

Special Provisions for 2010: Abbreviated Emissions Report



- Available to facilities with stationary combustion sources only
- Can report total facility emissions only (not unit level)
- Can use any calculation methodology in Subpart C

When Can I Stop Annual Reporting?



- If annual reports demonstrate CO₂e <25,000 metric tons/yr for 5 consecutive years.
- If annual reports demonstrate CO₂e <15,000 metric tons/yr for 3 consecutive years.
- If you shut down all processes/units/supply operations covered by the rule.
- Must notify EPA
- However, if threshold is subsequently triggered, must start reporting again

What are the Requirements for 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.

How Will Emissions Be Verified?



- **Self certification**
 - Designated representative certifies and submits report
 - Rule allows one designated representative for each facility and supplier
- **EPA verification**
 - Reports submitted through an electronic system
 - Built-in calculation and completeness checks for reporters
 - Additional EPA electronic QA and consistency checks
 - Site-specific and on-site audits

Electronic Reporting System



- All reporting under the GHG Reporting Program will be electronic.
- EPA's Electronic Greenhouse Gas Reporting Tool (e-GGRT) is under development.
- Web-based system for facility/supplier to EPA reporting
 - Web-forms will guide reporters through data entry and submission.
 - Built-in emissions calculations.
 - Will include a mechanism to submit file directly using Extensible Markup Language (XML) format.
 - Draft XML schema is available on the EPA website.
- For updates on the Data System and to view the draft XML schema:

<http://www.epa.gov/climatechange/data-reporting-system.html>

Registering for Electronic Reporting System



- e-GGRT will handle user and facility registration for GHGRP in accordance with 98.4
- Beginning in early fall 2010, facility or supplier representatives can create e-GGRT user accounts and:
 - Register facilities and suppliers
 - Identify Designated Representatives and Alternate Designated Representatives
 - Submit Certificates of Representation to EPA
 - Identify Agents
 - Submit Notices of Delegation to EPA
- Deadline for the 2010 reporting year:
 - Certificates of Representation must be submitted to EPA no later than **January 30, 2011.**
 - Register early !
 - User account set-up includes electronic signature agreement processing; allow **at least 10 days** before the deadline to set-up user account and register facilities or suppliers.

Confidential Business Information (CBI)



- EPA will protect any information claimed as CBI in accordance with regulations in 40 CFR Part 2, subpart B
- In general, emissions data collected under CAA sections 114 and 208 cannot be considered CBI
- On July 7, 2010, EPA proposed in the *Federal Register* a determination of CBI status of GHG data to be reported

Relationship to State and 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 is working 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

Technical Assistance



- On-line applicability tool: Assists potential reporters in assessing whether they are required to report
- Technical assistance materials (e.g., Information Sheets, Monitoring Checklists)
- Trainings and webinars
- Other materials later
- RSS available to announce new outreach materials

For complete list of materials and training schedule, see:
www.epa.gov/climatechange/emissions/ghgrulemaking.html

Additional Information



- www.epa.gov/climatechange/emissions/ghgrulemaking.html
 - Preamble and rule
 - Technical background documents on source categories
 - Comment response documents
 - Link to rulemaking docket
 - Technical assistance materials
- Email: GHGMRR@epa.gov



Questions?