



Greenhouse Gas Mandatory Reporting Rule Update

Air and Waste Management Association

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Mandatory Reporting Rule (MRR)

40 CFR Part 98

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

MRR Developments

- New Source Categories Added
- Confidentiality of Data Issues
- Rule Clarifications
- Pending Proposed Revisions
- Upcoming Deadlines

MRR – Applicability

- Report on annual emissions of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorochemicals (PFCs), and other fluorinated gases (e.g., nitrogen trifluoride and hydrofluorinated ethers (HFEs)).
- Source Categories
 - “All-In”
 - “Threshold”

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 CO2 e or more per year
- **Manure Management Systems that emit 25,000 metric tons CO2 e or more per year (NOT SUBJECT TO RULE)**
- Underground Coal Mines that are subject to quarterly sampling by MSHA (2011 and beyond)

Threshold Categories

- >25,000 metric tons CO2 e per year from all source categories, combustion units, and miscellaneous use of carbonates.
 - Ferroalloy Production
 - **Fluorinated Gas Sources 2011**
 - Glass Production
 - Hydrogen Production
 - **Industrial Wastewater Treatment 2011**
 - **Industrial Waste Landfills 2011**
 - Iron and Steel Production
 - Lead Production
 - **Magnesium Production 2011**
 - **Petroleum and Natural Gas Systems 2011**
 - Pulp and Paper Manufacturing
 - Zinc Production
 - Other

New Source Categories - 2011

- November 8, 2010: Fluorinated Gas Sources
 - Electronics manufacturing, including manufacture of semiconductors (which include light-emitting diodes), photovoltaic cells, liquid crystal displays, and micro-electro-mechanical systems (Subpart I)
 - Fluorinated gas production (Subpart L)
 - Imports and exports of pre-charged equipment or closed-cell foams containing fluorinated GHGs (Subpart QQ)
 - Use of electric transmission and distribution equipment (Subpart DD)
 - Manufacture of electric transmission and distribution equipment (Subpart SS)
 - >25,000 mt CO₂e threshold – For electric power systems, this rule uses a nameplate capacity threshold; for manufacturers of electrical power transmission and distribution equipment, the threshold is expressed in terms of annual GHG purchases.

New Source Categories - 2011

- July 12, 2010: Industrial Wastewater Treatment (Subpart II)
 - 25,000 mt CO₂e threshold
 - Anaerobic processes used to treat industrial wastewater and wastewater treatment sludge at:
 - Pulp and paper manufacturing
 - Food processing (fruits, vegetables, meat, and poultry processing only)
 - Ethanol production
 - Petroleum refining

New Source Categories - 2011

- The category does *not include anaerobic processes used to treat wastewater and wastewater treatment sludge at other industrial facilities*
- *It also does not include emissions from:*
 - Municipal wastewater treatment plants
 - Separate treatment of sanitary wastewater at industrial facilities
 - Oil/water separators
 - Aerobic and anoxic treatment of industrial wastewater

New Source Categories - 2011

- Facilities that are subject to the rule must report:
 - Annual mass of CH₄ generated by each anaerobic wastewater treatment reactor and each anaerobic wastewater treatment lagoon
 - Annual mass of CH₄ recovered from each anaerobic treatment process (reactor, lagoon, and sludge digester)
 - Annual mass of CH₄ emitted from each anaerobic treatment process (reactor, lagoon, and sludge digester)

New Source Categories - 2011

- July 12, 2010: Underground Mines (Subpart FF)
 - Owners or operators of facilities that are subject to quarterly or more frequent sampling of mine ventilation systems by the Mine Safety and Health Administration (MSHA) must report emissions from underground coal mines and all other source categories located at the mine for which methods are defined in the rule
 - Focus: CH₄ and CO₂ emissions

New Source Categories - 2011

- December 1, 2010: Geologic Sequestration of Carbon Dioxide (Subpart RR) and Injection (Subpart UU)
 - Requires facilities conducting geologic sequestration of CO₂ to report the amount of CO₂ sequestered using a mass balance approach
 - Intended to complement EPA's Underground Injection Control (UIC) permit requirements

MRR - Applicability

- A “Facility” is:
 - 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

Applicability

- Check source category and subject equipment definitions
- Collocated sources?
- Supplier relationships? (Subpart PP-enhanced monitoring)
- Mid-year change?
 - Must report emissions for the calendar year in which the change occurs, beginning in the first month of the change and ending on December 31 of that year

Once In, Always In?

- Not If:
 - Annual reports demonstrate CO₂e less than 25,000 for five consecutive years
 - Annual reports demonstrate CO₂e less than 15,000 for three consecutive years
 - Shut down all processes/units covered by rule

MRR - Monitoring

- Must follow all applicable monitoring and QA/QC requirements as of April 1, 2010 (new source categories— January 1, 2011)
- Extension periods concluded December 31, 2010
- Hybrid approach: Specific monitoring and emission estimating methods for individual source categories and general criteria for fuel combustion sources that do not fall within specific source categories. 40 CFR 98.3.
- Facilities that already collect and report their emissions data, like power plants subject to the federal acid rain program, must directly measure and record their GHG emissions
- Other source categories: Facility-specific calculations to estimate their emissions

MRR - Reporting

- Who Reports?
 - Facilities are required to identify a “**designated representative**” who will certify all emission reports, and must formally designate that individual in a submittal to EPA at least **60 days** before submitting any emission report certified by that individual
 - Designated Representative forms for 2011 reporters are due **January 29, 2011**
 - Each affected facility or supplier can have only one Designated Representative and an alternate who must be selected by an agreement binding on the owners and operators of such facility
 - The Designated Representative must certify under penalty of law on behalf of the owner and operator that the report has been prepared in accordance with the Reporting Rule's requirements and that the information contained in the report is true and accurate

What To Report

- If rule applies, report emissions for all source categories for which methods are provided in the rule
- General Provisions at 40 CFR 98.3(c)
- Category-specific provisions
- If reporters discover or are notified by EPA of errors in an annual report, they must submit a revised report within 45 days.
- Abbreviated Reporting available— 2010 only
 - Facilities with stationary combustion sources only
 - Can report total facility emissions only (not unit level)
 - Can use any calculation methodology in Subpart C

Reporting

- July 2010 – EPA proposed to determine that information included in emissions equations are “emissions data” and cannot be protected as confidential business information under the Clean Air Act
- EPA would have to make these data available to the public once they are submitted to the agency
- EPA can 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 cannot be considered CBI

Reporting - Confidentiality

- EPA categorized data elements into categories and proposed confidential business information (CBI) determinations for each category
 - Facility and unit identifier information
 - Emissions
 - **Inputs to emission equations**
 - Calculation methodology and methodological tier
 - Data elements reported for periods of missing data that are not inputs to emission equations
 - Unit/process “static” characteristics that are not inputs to emission equations
 - Unit/process operating characteristics that are not inputs to emission equations
 - Test and calibration methods
 - Production/throughput data that are not inputs to emission equations
 - Raw materials consumed that are not inputs to emission equations
 - Process-specific and vendor data submitted in BMM extension requests
- EPA: Inputs to emission equations as “emission data” that, under the Clean Air Act, would not qualify for protection as CBI

Reporting - Confidentiality

- Commenters on proposed CBI determination:
 - Disclosure of type, composition and proportions of raw materials could reveal specific formulas, product performance characteristics, energy usage, and production costs
 - Trade secrets or otherwise sensitive business information
 - Public availability would cause competitive harm

Reporting – Deferral Actions

- December 27, 2010 Federal Register
 - EPA proposes to defer deadline for reporting inputs to equations until March 31, 2014
 - EPA seeking comments on proposed deferral until 30 days after December 27, 2010, or 45 days if a hearing is requested
 - EPA issues Request for Information, seeking input on sensitivity of data and how to balance protection with transparency
 - EPA issued “Interim Final Rule” deferring reporting deadline for inputs to equations from March 31 until August 31, 2011, to allow EPA time to act on longer deferral
- The proposals will not change the requirement that facilities retain these data so that EPA may directly follow up with facilities through on-site audits

Reporting: E-GGRT

- e-GGRT will handle user and facility registration for GHGRP in accordance with 40 CFR 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**
- 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
- <http://www.epa.gov/climatechange/data-reporting-system.html>

Recordkeeping

- What Records Must Be Retained?
 - Three years (not five, as proposed)
 - Records of emissions, including reports themselves
 - Emission calculations
 - A list of all emission sources
 - Underlying data and emission factors used
 - Data collection methods
 - Changes to EPA's measurement methods
 - Names of the individuals who collected the data and prepared the report

Compliance Verification

- 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

Enforcement

- Non-compliance that could result in an enforcement action includes:
 - Falsification of reports;
 - Failure to monitor for GHG emissions or otherwise gather the data necessary;
 - Failure to maintain records; or
 - Failure to report
- Currently, the maximum penalty amount for violations of the Clean Air Act is \$32,500 per violation per day

Revisions/Clarifications

- December 17, 2010: *Federal Register*
 - Reference to a standardized method that must be followed
 - Amendments to certain equations to reflect actual operating conditions
 - Corrections to terms and definitions
 - Corrections to data reporting requirements so that they more closely conform to the information used to perform emission calculations
 - Some simplified emissions calculation methods

State Programs

- Rule does not preempt states from regulating or requiring reporting of GHGs
- No state delegation
- Reporting entities will report directly to EPA

State Overlap

- 18 states now have mandatory GHG emission reporting requirements: California, Connecticut, Delaware, Florida, Iowa, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Rhode Island, Washington, West Virginia, Wisconsin, and Vermont
- 23 states have encouraged voluntary GHG emission
- 9 states (Alaska, Arkansas, Indiana, Kentucky, Mississippi, Nebraska, North Dakota, South Dakota, and Texas) have no policy for voluntary or mandatory GHG emission reporting

Questions?

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