Revisions to the Mandatory Reporting of Greenhouse Gases (GHGs) Rule

Final Rule: Revision of Certain Provisions of the Mandatory Reporting of Greenhouse Gases Rule

This final rule includes revisions to certain provisions of the Mandatory Reporting of Greenhouse Gases (GHG) rule (hereafter referred to as Part 98). The major amendments being finalized are summarized below. Minor technical and editorial corrections are not included in this overview. This final rule is complementary to the final rulemaking: Technical Corrections, Clarifying and Other Amendments, published October 28, 2010. Together, these two actions address the most significant questions raised by stakeholders during implementation of the GHG Reporting Program.

Subpart A (General Provisions)

- Add a threshold for local distribution companies subject to subpart NN (Suppliers of Natural Gas and Natural Gas Liquids) to 460,000 thousand standard cubic feet or more of natural gas delivered per year.
- Amend the data reporting requirements to clarify that separate reporting of biogenic emissions from units that use Part 75 CO_2 mass emissions calculation methodologies is optional only for the 2010 reporting year, and becomes mandatory every year thereafter.
- Add a requirement that the designated representative include the name of the organization for which the report is being submitted.
- Clarify that the suppliers of industrial fluorinated GHGs are required to report in metric tons of carbon dioxide equivalent only for fluorinated GHGs listed in Table A-1.
- Amend the recordkeeping requirements for missing data events to remove the requirement to maintain records of the duration of missing events and actions to prevent or minimize occurrence in the future.
- Amend the requirements for correction and resubmission of annual reports so that resubmission is triggered only by a “substantive error,” to provide an opportunity for the facility to demonstrate that there is no error, and to provide an opportunity to extend the 45 day period for resubmission.
- Revise the 5% calibration accuracy requirements for measurement devices as follows:
    - Limit the 5% accuracy requirement to certain flow meters, when required by a specific subpart.
    - Require other measurement devices to meet the accuracy requirements of the relevant subpart(s), or industry consensus standards or manufacturer’s accuracy specifications.
    - Clarify that the 5% requirement does not apply where data are gathered from company records or best available information, where Part 75 methodologies are implemented, or for flow meters that are used exclusively for unit startup.
    - Clarify that in the event of failed calibration, data would become invalid prospectively.
    - Clarify under what circumstances assumed values for temperature and/or pressure at the flow meter location can be used.
    - Clarify that, for units and processes that operate continuously and cannot meet the calibration deadline without disrupting normal process operations, facilities can use company records until the next scheduled maintenance outage.
- Allow facilities subject to subpart P (Hydrogen Production), subpart X (Petrochemical Production) or subpart Y (Petroleum Refineries) to petition EPA to approve use of best available

monitoring methods beyond 2010 in limited circumstances where installation of a measurement device would require a process equipment or unit shutdown.

- Amend certain existing definitions, including the definition of “bulk natural gas liquid,” “fossil fuel,” “fuel gas,” “municipal solid waste (MSW),” “natural gas” and “supplier.” Propose new definitions, including “primary fuel,” “solid byproducts”, “waste oil,” and “wood residuals.”

Subpart C (General Stationary Fuel Combustion Sources)

- Raise the Tier 4 monitoring threshold for units combusting MSW from 250 tons of MSW per day to 600 tons of MSW per day.
- Allow Tier 3 units to use actual HHV data to calculate CH_4 and N_2O emissions.
- Amend Table C-1, including changing the categories “fossil fuel-derived fuels (solid)” and “fossil fuel-derived fuels (gaseous)” to “other fuels (solid),” and “other fuels (gaseous),” respectively, removing the term “pipeline” before “natural gas,” adding “used oil,” “plastics,” “solid petroleum coke” and “propane gas” and replacing “still gas” with “fuel gas.”
- Clarify that reporting of emissions from pilot lightsis not required.
- Provide an equation for estimating CO_2 emissions where gas billing records are in “therms” or “MMBtu."
- Allow use of site-specific moisture default values for fuels for which no applicable default moisture value is available in Part 75.
- Add provisions so owners or operators with Tier 4 units would not have to install a CEMS on a slipstream.
- Clarify the calculation, monitoring and reporting requirements for CO_2 emissions from biomass combustion.
- Clarify or amend various Tier 4 monitoring requirements, including reporting of CEMS data prior to 2011, common stack configurations, CO_2 span values, and CEMS data validation.
- Provide additional guidance on the calculation of CO_2, CH_4 and N_2O emissions from blended fuels.
- Clarify how to apply the definition of fuel lot in instances where frequent deliveries of the same fuel may occur by truck, rail or pipeline.
- Amend data reporting elements, including:
  - Add methodology start and end dates
  - Remove reporting of the customer ID number for units that combust natural gas.
  - Add reporting of fuel-specific annual heat input estimates for the purposes of quantifying CH_4 and N_2O emissions
  - Clarify how to use common stack reporting option when one or more units are not subject to subpart C.
  - Remove individual reporting of number of units and unit ID for aggregated groups of units, common pipe configurations, and common stack configurations.
- Add an alternative reporting option where small units such as space heaters share a common liquid or gaseous fuel supply with large combustion units.

Subpart D (Electricity Generation)

- Clarify that subpart D applies only to Acid Rain Program (ARP) units, and non-ARP electricity generating units that are required to report CO_2 mass emissions data to EPA year-round.
- Provide procedures for separately reporting biogenic CO_2 emissions.
- Clarify that the recordkeeping requirements in 40 CFR 75.57(h) for missing data events satisfy the Part 98 requirements.

Subpart F (Aluminum Production)

- Clarify that each perfluorocarbon compound must be quantified and reported.
- Clarify the frequency of monitoring for parameters which are not measured annually but on a more or less frequent basis.

Subpart G (Ammonia Production)

- Amend subpart G to remove calculation, monitoring and reporting requirements from the waste recycle stream or purge.
- Clarify calibration requirements, consistent with amendments to subpart A.
- Remove requirement to report uses of urea produced, if known.
- Remove requirement to report the total pounds of synthetic fertilizer produced and the total nitrogen contained in that fertilizer.

Subpart P (Hydrogen Production)

- Ensure consistency with the amendments to subpart A on the calibration accuracy requirements.
- Allow use of methods published by a consensus standards organization if such a method exists, or industry consensus standard practices to determine the carbon content and molecular weight (for gaseous fuels) of the fuel. Also provide the option to use a gas chromatograph.

Subpart V (Nitric Acid Production)

- Remove requirement to report the total pounds of synthetic fertilizer produced and the total nitrogen contained in that fertilizer.

Subpart X (Petrochemical Production)

- Amend Equation X-1 to provide two alternative values for the molar volume conversion factor, depending on the "standard conditions" used by the monitors.
- For the optional methodology for ethylene production processes, allow use of lower-tiered monitoring methods for limited units that currently do not have a flow meter installed at the combustion source or common pipe and for which either the average fuel gas flow rate in the fuel gas line does not exceed 350 scfm or the combustion source has a heat input of less than 30 MMBtu/hr.
- Add several methods for determining carbon content, including :
    - "ASTM D2593-93 (Reapproved 2009) Standard Test Method for Butadiene Purity and Hydrocarbon Impurities by Gas Chromatography."
    - EPA Method 9060A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition.
    - ASTM D7633 Standard Test Method for Carbon Black—Carbon Content.
    - Results of chromatographic analysis.
    - Results of mass spectrometer.
    - Industry consensus standards for determining carbon content for carbon black feedstock oils and products.
    - Allow facilities to use alternate methods for determining feedstock and product carbon content in instances where none of the specific methods listed are appropriate because the relevant compounds cannot be detected, the quality control requirements are not technically feasible, or use of the method would be unsafe.
- Clarify calibration requirements, consistent with the amendments to subpart A.

- Clarify that a process that distills or recycles waste solvent that contains a petrochemical is not part of the petrochemical production source category.
- Clarify that CO_2 emissions from process vents routed to stacks that are not associated with stationary combustion units must be reported under Subpart X under the CEMS option.
- Clarify procedures for calculating CH_4 and N_2O emissions from combustion units that burn petrochemical off-gas under the CEMS and ethylene-specific options.
- Clarify reporting requirements under CEMS option, including clarifying that for combustion units that burn petrochemical process off gas and other fuels, an estimate must be made based on engineering judgment of the fraction of the total CO_2, CH_4, and N_2O emissions that is attributable to combustion of off-gas from the petrochemical process unit.
- Delete the requirement for reporting of the dates and summarized results of calibrations of each measurement device under the mass balance option.
- For the ethylene-specific option, clarify that an estimate must be made based on engineering judgment of the fraction of the total emissions that is attributable to combustion of off-gas from the ethylene process unit.

.

Subpart Y (Petroleum Refineries)

- Amend equations to provide two alternative values for the molar volume conversion factor depending on the "standard conditions" used by the monitors.
- Allow use of lower-tiered methods for limited units that currently do not have a flow meter installed at the combustion source or common pipe and for which either the average fuel gas flow rate in the fuel gas line does not exceed 350 scfm or the combustion source has a heat input of less than 30 MMBtu/hr.
- Clarify calibration requirements, consistent with the proposed amendments to subpart A.
- Amend the requirements for determining gas composition and average molecular weight to allow use of ASTM standard D2503-92 or chromatographic analysis.
- Revise requirements for exhaust gas flow meters used for coke burn-off by retaining portions of 40 CFR 98.254(f)(1) and (3), as additional (rather than alternative) requirements.
- Clarify the required emissions methods for flares.
- Clarify that reporting of CH_4 and N_2O emissions is required for the stationary combustion units fired with fuel gas.
- Provide an additional option for facilities using Equation Y-1 or Y-16 to calculate emissions from flares or asphalt blowing operations controlled by thermal oxidizers or flares; provide an optional modified equation that does not assume a 98% combustion efficiency for CO_2.
- Clarify the requirements for estimating emissions from a combined stack where CEMS are used, particularly for the catalytic cracking unit.
- Add nitrogen concentration monitoring alternative for calculating the exhaust gas flow rate of catalytic cracking units and fluid coking units. Revise the definition of the coke burn-off quantity, CB_Q, and the term "n" in Equation Y-11 to clarify how to use Equation Y-11 for continuously regenerated catalytic reforming units.
- Clarify that the calculation methods in subpart Y are for both onsite and off-site sulfur recovery plants.
- Amend the definition of Mdust in Equation Y-13 to account for recycled dust.
- Allow the use of the process vent method for non-Claus sulfur recovery plants.

Subpart AA (Pulp and Paper Manufacturing)

- Allow combustion-related emissions from chemical recovery furnaces, chemical recovery combustion units, and pulp mill lime kilns to be estimated using Tier 1 or higher, if chosen by the facility.

- Remove CO_2 specific emission factors from Table AA-2, and instead refer to factors in Table C-1 for lime kilns.

Subpart OO (Suppliers of Industrial Greenhouse Gases)

- Clarify that to "produce a fluorinated GHG" excludes (1) the creation of intermediates that are created and transformed in a single process with no storage of the intermediates and (2) the creation of fluorinated GHGs that are released or destroyed at the production facility before the production measurement.
- Remove the requirements to estimate and report the destruction of of flurorinated GHGs that are not included in the mass produced because they are removed from the production process as byproducts or other wastes.
- Clarify that isolated intermediates that are produced and transformed at the same facility are exempt from subpart OO monitoring, reporting, and recordkeeping requirements.
- Allow producers, importers and exporters to exclude low-concentration fluorinated GHG constituents of their products from the monitoring and reporting requirements.
- Require producers to use quality-assured methods to quantify and report their production of other fluorinated GHG constituents of their products.
- Recast the reporting exemptions for import and export of small shipments in terms of 25 kilograms of fluorinated GHGs or N_2O rather than 250 tons of CO_2-equivalents.
- Clarify that the due date for the submission of the one-time report for a fluorinated GHG production facility or importer that destroys fluorinated GHGs is March 31, 2011 or within 60 days of commencing fluorinated GHG destruction.
- Require submission of a one-time report by March 31, 2011, that includes the concentration of each fluorinated GHG constituent in each fluorinated GHG product.

Subpart PP (Suppliers of Carbon Dioxide)

- Remove term "each" in §98.422, consistent with monitoring and reporting requirements that an aggregated flow of CO_2 can be monitored.
- Allow reporters to calculate the annual mass of CO_2 supplied in containers by using weigh bills, scales, load cells, or loaded container volume readings as an alternative to flow meters.
- Remove the requirement that CO_2 calculations must be made prior to subsequent purification, processing, or compression.
- Provide a "one meter" or "two meter approach" to calculate the CO_2 supplied to the economy.
  - "One meter"- Place the meter(s) after all diversions (segregation) of the CO_2 for onsite use.
  - "Two meters"- Measure CO_2 before the point of segregation, and measure onsite use, with the difference being the CO_2 supplied to the economy. This approach is only feasible where on-site use is the only diversion(s) from the main, captured CO_2 stream(s) after the main flow meter location(s).
  - Require a new reporting element to indicate where the flow meter is placed.
- Allow calculation, in addition to measurement, to determine the density of the CO_2 stream.
- Amend standard conditions for this subpart to be a temperature and an absolute pressure of 60 degrees Fahrenheit and 1 atmosphere.

For More Information

This document is provided solely for informational purposes. It does not provide legal advice, have legally binding effect, or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person. The series of information sheets is intended to assist reporting facilities/owners in understanding key provisions of the final rule.

Visit EPA's website (http://www.epa.gov/ghgreporting/reporters/index.html) for more information, including the proposed and final preamble and amendments for this action. Additional information sheets on specific source categories, the schedule for training sessions, and other documents and tools related to the GHG Reporting Program may also be found on our website. For questions on the rule that cannot be answered through the Web site, please contact us at: GHGMRR@epa.gov.