# Technical Corrections, Clarifying and Other Amendments

United States Environmental Protection Agency

**Final Rule: Technical Corrections, Clarifying and other Amendments to Certain Provisions of the Mandatory Greenhouse Gas Reporting Rule**

*This rule includes technical corrections, clarifying and other amendments to specific Greenhouse Gas Mandatory Reporting Rule provisions[1]. In addition to some very minor technical and editorial corrections, we are making the following amendments.*

## *Part 86:*

- Manufacturers of highway heavy-duty vehicles, as well as manufacturers of highway heavy-duty engines, are subject to GHG reporting requirements. EPA inadvertently omitted the regulatory text covering manufacturers of highway heavy-duty vehicles. We are amending 40 CFR part 86 to correct that error by incorporating the appropriate language into the regulations.

## *Part 98:*

The following subparts of 40 CFR part 98 are amended:

### Subpart A (General Provisions)

- Amend the existing definition of "carbonate-based mineral," "carbonate-based mineral fraction," "carbonate-based raw material," "crude oil," "gas collection system or landfill gas collection system," "Mscf" (thousand standard cubic feet), and "non-crude feedstocks".
- Remove definition of argon-oxygen decarburization vessel and replace with a definition for decarburization vessel.
- Incorporate by reference an additional standard for subpart N, Glass Manufacturing.

### Subpart E (Adipic Acid Production)

- Amend equations to account for facilities that use either a single or multiple nitrous oxide abatement technologies, and add an equation to account for facilities that have no abatement technologies.
- Amend language to clarify that the Administrator-approved alternative method is for determining $N_2O$ emissions rather than $N_2O$ concentration.
- Clarify that the location of the test (sampling) point used for the performance test can occur before or after $N_2O$ abatement technology as long as the test properly accounts for the destruction efficiency of the $N_2O$ abatement technology.

### Subpart H (Cement Production)

- Allow facilities, in determining the clinker weight fraction of MgO and CaO, the option to determine a monthly value based on the arithmetic average of daily samples.
- Allow additional options for measuring clinker production.
- Allow an additional option for determining the organic carbon content of raw materials.

[1] *The amendments included in this rulemaking do not necessarily reflect all of the amendments currently under consideration on the final Mandatory Greenhouse Gas Reporting Rule.*

## Subpart K (Ferroalloy Production)

- Clarify requirements for calculating methane emissions from electric arc furnaces.

## Subpart N (Glass Production)

- Add $CO_2$ emission factors in Table N-1 to account for consumption of barium carbonate, potassium carbonate, lithium carbonate, and strontium carbonate at glass facilities.
- Provide an additional ASTM method for determining the carbonate mineral mass fraction of raw materials.
- Clarify in the data reporting requirements that glass production must be reported both by furnace and from all furnaces combined, to be consistent with the calculation methods.

## Subpart O (HCFC-22 Production and HFC-23 Destruction)

- Amend the language in §98.154(l) to use the term "destruction device" rather than the narrower term "thermal oxidizer."
- Clarify which facilities are required to report data associated with flow rate of HFC-23 fed into the destruction device, at the outlet of the destruction device, and the emission rate at the device. Clarify that owners or operators reporting this information also report the calculated destruction efficiency of the device.
- Amend the due date of the one-time report for HFC-23 destruction facilities to March 31, 2011 or within 60 days of commencing HFC-23 destruction.

## Subpart P (Hydrogen Production)

- Amend the definition of this source category to clarify that hydrogen production processes located within facilities that are not petroleum refineries are also included within the definition.
- Remove the requirement in §98.162(b) for owners or operators to report $CO_2$, $CH_4$ and $N_2O$ combustion emissions from each hydrogen production process unit using the emissions calculation methods in subpart C (Stationary Fuel Combustion).
- Clarify that each gaseous, liquid or solid fuel and feedstock must be calculated based on its respective equations detailed in the rule language.
- Remove the terms "quarterly" and "kg" from §98.166 (c) to make the reporting requirements consistent with the language in subpart PP (Suppliers of $CO_2$).

## Subpart Q (Iron and Steel Production)

- Amend the language in §98.172(b) to clarify that for subpart Q facilities, flare emissions must be estimated only for flares burning blast furnace gas or coke oven gas. Clarify that the missing data procedures in subpart Y (Petroleum Refineries) at §98.255(b) must be followed for flares burning coke oven gas or blast furnace gas.
- Amend the reporting requirements in §98.176(e)(3) to clarify that fuel consumption must be reported separately for each type of fuel and other process input and output material.
- Add reporting requirements for the annual amount of coal charged to coke ovens.
- Clarify the units and processes for which annual operating hours need to be recorded per the recordkeeping requirements.
- Clarify that the requirements to estimate GHG emissions from argon-oxygen decarburization vessels also apply to other types of vessel used with the primary purpose of reducing the carbon content of molten steel (decarburization) and that result in the venting of similar GHG. The start of GHG emissions reporting for decarburization vessels that are not argon-oxygen decarburization vessels will be delayed until reporting for data collected during 2011.

## Subpart S (Lime Production)

- Amend terminology throughout the subpart to (1) clarify whether the calculation and reporting requirements are referring to calcined byproducts and waste materials and (2) clarify where the calculation and reporting requirements apply to lime products that are produced at the facility.

## Subpart V (Nitric Acid Production)

- Clarify that the location of the test (sampling) point used for the performance test can occur before or after $N_2O$ abatement technology as long as the test properly accounts for the destruction efficiency of the $N_2O$ abatement technology.
- Provide a new equation for facilities that do not have $N_2O$ abatement technology located after the test (sampling) point.

## Subpart Z (Phosphoric Acid Production)

- Amend the monitoring calculations to allow facilities to use the appropriate industry consensus standards available, including methods in the Phosphate Mining States Methods Used and Adopted by the Association of Fertilizer and Phosphate Chemists AFPC Manual 10th Edition – Version 1.92.
- Clarify that the grab sample must be collected prior to entering the mill for accurate analysis of inorganic carbon contents.
- Clarify that the annual arithmetic average percent inorganic carbon in phosphate rock is to be reported as the percent by weight, expressed as a decimal fraction.
- Specify that facilities need to report the total annual process $CO_2$ emissions from the phosphoric acid production facility in metric tons.
- Amend the equations to calculate $CO_2$ emissions to account for analytical measurements that provide the inorganic carbon content of phosphate rock or a $CO_2$ emissions factor.

## Subpart CC (Soda Ash Manufacturing)

- Clarify that soda ash production is reported for each line.
- Clarify that the information for producers using the liquid alkaline feedstock process is reported for each manufacturing line or stack, when using a site specific emission factor, and clarify that the elements required are for the periods during the performance test.

## Subpart EE (Titanium Dioxide Production)

- Clarify that monitoring requirements for the quantity of carbon-containing waste generated from each titanium dioxide production line is determined on a monthly basis, consistent with the calculation procedures in §98.313(b)(3).
- Amend the data reporting requirements for determining monthly carbon content to be consistent with the calculation and monitoring methods.
- Clarify that the data reporting requirements for determining carbon content for carbon-containing waste are applied to each process line, consistent with calculation and monitoring requirements.

## Subpart GG (Zinc Production)

Proposing to:

- Amend definitions of the terms for $(Electrode)_k$ and $(C_{Electrode})_k$ in Equation GG-1 to remove the references to kilns.
- Clarify that identification numbers must be reported for both Waelz kilns and electrothermic furnaces.
- Clarify that the carbon content of each input to a kiln or furnace must be reported as a calculation parameter regardless of whether the data are collected from the supplier or by self measurement.

## Subpart HH (Municipal Solid Waste Landfills)

- Amend the source category definition to clarify that it does not include certain hazardous waste landfills, construction and demolition waste landfills, or industrial waste landfills; include definitions of construction and demolition waste landfills, and industrial waste landfills in §98.348.
- Amend Equation HH-1 and the definition of the terms in that equation to clarify the method for calculating the methane generation rate and the meaning of the terms in the equation. Include provisions to account for the effect of active aeration on methane generation.
- Amend the methods for measuring the waste quantity brought to a landfill to provide alternative methods for landfills that do not have truck scales and to not require the use of scales for measuring waste brought in passenger vehicles or light-duty pick-up trucks.
- Make technical corrections to Equations HH-2, HH-3, and HH-4, and to make them consistent with Equation HH-1.
- Amend the moisture content measurement requirements in Equation HH-4 to correctly allow for daily or weekly measurements, and to allow for gas volume and $CH_4$ concentration to be measured differently from each other on a dry or wet basis.
- Amend the definition of "gas collection system or landfill gas collection system" in §98.6 of subpart A to differentiate between active and passive systems and to clarify in subpart HH that monitoring with flow meters is only required for active systems.
- Amend the monitoring and QA/QC requirements, recordkeeping and reporting requirements to clarify those requirements and to make them consistent with the calculation procedures.
- Amend Table HH-1 to clarify the calculation of GHG emissions for landfills that use leachate recirculation and to provide an alternative default "k" value for the oxidation factor.

## Subpart LL (Suppliers of Coal-based Liquid Fuels)

- Clarify that fossil-fuel products that enter the facility would not be reported when exiting the facility if they are not further refined or otherwise used on site (e.g., products stored in a tank).

## Subpart MM (Suppliers of Petroleum Products)

- Add a new definition for "batch," and amend the reporting and recordkeeping requirements to correspond to the new definition of "batch."
- Clarify crude oil reporting requirements and provide flexibility for associated recordkeeping requirements.
- Clarify that GHG emissions should not be calculated for products leaving the refinery if those products had entered the refinery but were not further refined or otherwise used on site (e.g., products stored in a tank).
- Provide an optional method for reporters to calculate $CO_2$ emissions resulting from complete oxidation or combustion of a blended product or blended non-crude feedstock.
- Amend the definition of the calculation procedures for biomass based fuels under §98.393(h) to exclude denaturant in ethanol.

## Subpart NN (Suppliers of Natural Gas and Natural Gas Liquids)

- Clarify throughout that "mscf" refers to "thousand standard cubic feet."
- Clarify several terms in the equations of subpart NN.
- Update the HHVs and default $CO_2$ emission factors in Table NN-1 and NN-2 to be consistent with the emission factors in Tables C-1 and MM-1.

## 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 (www.epa.gov/ghgreporting/reporters/index.html) for more information, including the final preamble and rule, additional information sheets on specific source categories, the schedule for training sessions, and other documents and tools. To submit a question, select Rule Help Center, followed by "Contact Us".