

Suppliers of Industrial Greenhouse Gases



Final Rule: Subpart OO of 40 CFR Part 98

Under Subpart OO of 40 CFR Part 98, suppliers of industrial GHGs or nitrous oxide (N₂O) that meet the applicability requirements of the rule (see information sheet on General Provisions) must report GHG emissions that would result from the release of each fluorinated GHG and N₂O that they produce, import, export, transform, or destroy. Suppliers of industrial GHGs are required to collect data on their products and follow the specified procedures for ensuring data quality, amending missing data, and meeting recordkeeping and reporting requirements.

How Is This Source Category Defined?

Suppliers of industrial GHGs include:

- ◆ Facilities that produce fluorinated GHGs or N₂O.
- ◆ Bulk importers of fluorinated GHGs or N₂O, if the total combined imports of industrial GHGs and carbon dioxide (CO₂) exceed 25,000 tons of carbon dioxide equivalents (CO₂e) per year.
- ◆ Bulk exporters of fluorinated GHGs or N₂O, if the total combined exports of industrial GHGs and CO₂ exceed 25,000 tons CO₂e per year.

Production of fluorinated GHGs includes the following activities:

- ◆ Manufacture of fluorinated GHGs from any raw material or feedstock chemical.
- ◆ Manufacture of fluorinated GHGs as isolated intermediates for use in a process that will result in their transformation on site or at another facility. (However, note that isolated intermediates that are produced and transformed at the same facility are exempt from the monitoring, reporting, and recordkeeping requirements of subpart OO.)
- ◆ Creation of a fluorinated GHG (with the exception of HFC-23) that is captured and shipped off site for any reason, including destruction.

Production of fluorinated GHGs excludes the following activities:

- ◆ Reuse or recycling of a fluorinated GHG or N₂O.
- ◆ Creation of HFC-23 as a byproduct during the production of HCFC-22.
- ◆ Creation of intermediates that are created and transformed in a single process with no storage of the intermediates.
- ◆ Creation of fluorinated GHGs that are released or destroyed at the production facility before the production measurement at §98.414(a).

Production of N₂O includes producing nitrous oxide by thermally decomposing ammonium nitrate (NH₄NO₃). Producing N₂O does not include the reuse or recycling of nitrous oxide or the creation of by-products that are released or destroyed at the production facility.

What GHGs Must Be Reported?

Under subpart OO, suppliers of industrial GHGs must report the GHG emissions that would result from the complete release of N₂O and each fluorinated GHG produced, imported, exported, transformed, or destroyed during the calendar year, with the following qualifications:

- Suppliers must report destruction of those fluorinated GHGs that were previously produced, e.g., fluorinated GHGs that are returned to the facility from the field for reclamation but are found to be irretrievably contaminated and are thus destroyed. They are not required to report destruction of fluorinated GHGs that are created and destroyed before the production measurement.

- Suppliers are not required to report the production, import, export, transformation or destruction of low-concentration constituents of fluorinated GHG products. A low-concentration constituent is a fluorinated GHG constituent of a fluorinated GHG product that occurs in the product below a certain concentration.
 - For purposes of fluorinated GHG production and export, the concentration is 0.1 percent by mass.
 - For purposes of fluorinated GHG import, the concentration is 0.5 percent by mass.
- Suppliers are not required to report the production or transformation of isolated intermediates that are produced and transformed at the same facility.
- Suppliers are not required to report the destruction of N₂O.

Importers and exporters of CO₂ must calculate and report annual GHG emissions of CO₂ according to 40 CFR part 98, subpart PP.

Fluorinated GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), nitrogen trifluoride (NF₃), hydrofluoroethers (HFEs), and others as defined in §98.6 of the final Mandatory Reporting of GHGs Rule (74 FR 56260; October 30, 2009). Fluorinated GHGs do not include chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs). Although CFCs and HCFCs contribute to climate change, their emissions are excluded from the Mandatory Reporting of GHGs Rule because they are already regulated under EPA's stratospheric ozone protection regulations (40 CFR part 82).

How Must GHG Emissions Be Calculated?

Suppliers must determine annual GHG supply flows in metric tons as follows:

- The mass of each fluorinated GHG or N₂O produced must be determined by measuring the mass of each fluorinated GHG or N₂O produced (i.e., gas coming out of the production process) and subtracting the mass of each fluorinated GHG or N₂O added to the process upstream (i.e., where used GHGs are added back to the production process for reclamation).
- If the measured mass includes more than one fluorinated GHG, the concentrations of each of the fluorinated GHGs, other than low-concentration constituents, must be measured as specified in the rule. These concentrations must be multiplied by the measured mass to obtain the masses of each fluorinated GHG coming out of the production process.
- The mass of each fluorinated GHG or N₂O transformed must be determined by using the measured mass of fluorinated GHG fed into the transformation process and the efficiency of the transformation process (as indicated by yield calculations or quantities of unreacted fluorinated GHGs or N₂O permanently removed from the process and recovered, destroyed, or emitted).
- The mass of each fluorinated GHG destroyed must be determined by measuring the mass of fluorinated GHG fed into the destruction device and applying the destruction efficiency of the destruction device.

A checklist for data that must be monitored is available at:

www.epa.gov/climatechange/emissions/downloads/checklists/suppliersindustrialghgs.pdf.

When Must Reports Be Submitted?

The submission date for the annual GHG report can vary in the first 3 years of the program.

- Reporting Year 2010. The report was required to be submitted by September 30, 2011.
- Reporting Year 2011. The due date depends on which source categories are included in the report. If the report includes one or more of the source categories listed below, then the report

must be submitted by September 28, 2012. This reporting deadline applies to all subparts being reported by the facility. In addition, if the facility contains one or more of these source categories and the facility submitted a GHG annual report for reporting year 2010 under another subpart (e.g., subpart C for general stationary fuel combustion), then by April 2, 2012 you must notify EPA through e-GGRT that you are not required to submit the second annual report until September 28, 2012 (the notification deadline according to 4 CFR 98.3(b) is March 31, 2012, however, because this date falls on a Saturday in 2012, the notification is due on the next business day).

- Electronics Manufacturing (subpart I)
- Fluorinated Gas Production (subpart L)
- Magnesium Production (subpart T)
- Petroleum and Natural Gas Systems (subpart W)
- Use of Electric Transmission and Distribution Equipment (subpart DD)
- Underground Coal Mines (subpart FF)
- Industrial Wastewater Treatment (subpart II)
- Geologic Sequestration of Carbon Dioxide (subpart RR)
- Manufacture of Electric Transmission and Distribution (subpart SS)
- Industrial Waste Landfills (subpart TT)
- Injection of Carbon Dioxide (subpart UU)
- Imports and Exports of Equipment Pre-charged with Fluorinated GHGs or Containing Fluorinated GHGs in Closed-cell Foams (subpart QQ)

If the report contains none of the source categories listed above, then the report must be submitted by April 2, 2012 (the deadline is March 31, 2012, however, because this date falls on a Saturday, the annual report is due on the next business day).

- Reporting Year 2012. Starting in 2013 and each year thereafter, the report must be submitted by March 31 of each year, unless the 31st is a Saturday, Sunday, or federal holiday, in which case the reports are due on the next business day.

What Information Must Be Reported?

In addition to the information required by the General Provisions at 40 CFR 98.3(c), each annual report must include the following information for production facilities, importers, and exporters:

Production Facilities:

Production facilities must report the following information in metric tons by process for N₂O and each fluorinated GHG, as applicable:

- Mass produced, excluding mass shipped off site for destruction.
- Mass transformed on site.
- Mass of each fluorinated GHG that is destroyed on site and that was previously produced.
- Mass sent to another facility for transformation.
- Mass of each fluorinated GHG sent to another facility for destruction, excluding mass removed from the production process as byproducts or waste.
- Mass of each fluorinated GHG that is sent to another facility for destruction and that is removed from the production process as byproducts or waste.
- Mass fed into the transformation process,.

- Mass of each fluorinated GHG that is fed into the destruction device and that was previously produced.
- Mass measured coming out of the production process.
- Mass of used product added back into the production process (e.g., because it is being reclaimed).
- Name and address of each facility to which industrial GHGs are sent for transformation, and the mass of N₂O and each fluorinated GHG sent to each facility.
- Name and address of each facility to which fluorinated GHGs are sent for destruction, and the mass of each fluorinated GHG sent to each facility.
- Where missing data have been estimated, the reason the data were missing, the length of time the data were missing, the method used to estimate the missing data, and the estimates of those data.

Production facilities must also submit by March 31, 2011, a one-time report describing:

- The methods by which the producer in practice measures the mass of fluorinated GHGs produced, including the instrumentation used (e.g., Coriolis flowmeter, other flowmeter, weigh scale) and its accuracy and precision.
- The methods by which the producer in practice estimates the mass of fluorinated GHGs fed into the transformation process, including the instrumentation used (e.g., Coriolis flowmeter, other flowmeter, weigh scale) and its accuracy and precision.
- The methods by which the producer in practice estimates the fraction of fluorinated GHGs fed into the transformation process that is actually transformed, and the estimated precision and accuracy of this estimate.
- The methods by which the producer in practice estimates the masses of fluorinated GHGs fed into the destruction device, including the methods used to estimate the concentration of the fluorinated GHGs in the destroyed material, and the estimated precision and accuracy of this estimate.
- The estimated percent efficiency of each production process for the fluorinated GHG produced.

In addition, production facilities must submit by March 31, 2011, a one-time report including:

- The concentration of each fluorinated GHG constituent in each fluorinated GHG product.
- If the facility begins to produce a fluorinated GHG that was not included in the initial report or performs a repeat measurement that shows that the identities or concentrations of the fluorinated GHG constituents of a fluorinated GHG product have changed, then the facility must submit a revision to the report reflecting the new or changed concentrations by the next March 31st.

Production Facilities and Importers that Destroy Fluorinated GHGs:

Production facilities and importers that destroy fluorinated GHGs must also submit a one-time report that contains the following information level:

- Destruction efficiency (DE) of each destruction unit.
- Methods used to determine DE.
- Methods used to record the mass of fluorinated GHG destroyed.
- Chemical identity of the fluorinated GHGs used in the performance test conducted to determine DE.
- Name of all federal or state regulations applicable to the destruction process.
- If any process changes are made affecting unit DE or the methods used to record the mass destroyed, a revised report must be submitted within 60 days of the change.

Importers:

Bulk importers of fluorinated GHGs or N₂O must submit an annual report at the corporate level. The report must include the following information for each import (excluding transshipments, heels, and shipments of less than 25 kilograms of fluorinated GHGs or nitrous oxide):

- Mass in metric tons of each GHG or N₂O imported in bulk.

- Mass in metric tons of each GHG or N₂O that is sold or transferred to persons other than the importer for use in processes resulting in the transformation or destruction of the chemical.
- Date imported.
- Port of entry.
- Country from which imported.
- Commodity code.
- Importer number for the shipment.
- Names and addresses of the persons and facilities to which GHGs or N₂O were sold or transferred for transformation and destruction.
- Mass in metric tons of each fluorinated GHG destroyed by the importer.
- Names and addresses of the persons and facilities to which the N₂O or fluorinated GHGs were sold or transferred for transformation, and the quantities (metric tons) of N₂O and of each fluorinated GHG that were sold or transferred to each facility for transformation.
- Names and addresses of the persons and facilities to which the fluorinated GHGs were sold or transferred for destruction, and the quantities (metric tons) of each fluorinated GHG that were sold or transferred to each facility for destruction.

Exporters:

Bulk exporters of fluorinated GHGs or N₂O must submit an annual report at the corporate level. The report must include the following information for each export (excluding transshipments, heels, and shipments of less than 25 kilograms of fluorinated GHGs or nitrous oxide):

- Mass in metric tons of each GHG or N₂O exported in bulk.
- Names and addresses of the exporter and recipient.
- Date exported.
- Port from which each GHG or N₂O were exported from the United States or its territories.
- Countries to which each GHG or N₂O were exported.
- Commodity code of each GHG or N₂O exported.
- Exporter's Employee Identification Number.

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 Web site (www.epa.gov/climatechange/emissions/ghgrulemaking.html) for more information, including the final preamble and rule, additional information sheets on specific industries, the schedule for training sessions, and other documents and tools. For questions that cannot be answered through the Web site, please contact us at: ghgmrr@epa.gov.