

40 CFR Part 98--Mandatory Greenhouse Gas Reporting

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Subpart DD--Electrical Transmission And Distribution Equipment Use

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40 CFR §98.300 Definition Of The Source Category.

(a) The electrical transmission and distribution equipment use source category consists of all electric transmission and distribution equipment and servicing inventory insulated with or containing sulfur hexafluoride (SF₆) or perfluorocarbons (PFCs) used within an electric power system. Electric transmission and distribution equipment and servicing inventory includes, but is not limited to:

(a)(1) Gas-insulated substations.

(a)(2) Circuit breakers.

(a)(3) Switchgear, including closed-pressure and hermetically sealed-pressure switchgear and gas-insulated lines containing SF₆ or PFCs.

(a)(4) Gas containers such as pressurized cylinders.

(a)(5) Gas carts.

(a)(6) Electric power transformers.

(a)(7) Other containers of SF₆ or PFC.

40 CFR §98.301 Reporting Threshold.

(a) You must report GHG emissions from an electric power system if the total nameplate capacity of SF₆ and PFC containing equipment (excluding hermetically sealed-pressure equipment) located within the facility, when added to the total nameplate capacity of SF₆ and PFC containing equipment (excluding hermetically sealed-pressure equipment) that is not located within the facility but is under common ownership or control, exceeds 17,820 pounds and the facility meets the requirements of [§98.2\(a\)\(1\)](#).

(b) A facility other than an electric power system that is subject to this part because of emissions from any other source category listed in Table A-3 or A-4 in subpart A of this part is not required to report emissions under subpart DD of this part unless the total nameplate capacity of SF₆ and PFC containing equipment located within that facility exceeds 17,820 pounds.

40 CFR §98.302 GHGs To Report.

You must report total SF₆ and PFC emissions from your facility (including emissions from fugitive equipment leaks, installation, servicing, equipment decommissioning and disposal, and from storage cylinders) resulting from the transmission and distribution servicing inventory and equipment listed in [§98.300\(a\)](#). For acquisitions of equipment containing or insulated with SF₆ or PFCs, you must report emissions from the equipment after the title to the equipment is transferred to the electric power transmission or distribution entity.

40 CFR §98.303 Calculating GHG Emissions.

(a) Calculate the annual SF₆ and PFC emissions using the mass-balance approach in Equation DD-1 of this section:

$$\begin{aligned} \text{User Emissions} = & (\text{Decrease in SF}_6 \text{ Inventory}) + (\text{Acquisitions} \\ & \text{of SF}_6) - (\text{Disbursements of SF}_6) - (\text{Net Increase in Total} \\ & \text{Nameplate Capacity of Equipment Operated}) \end{aligned} \quad (\text{Eq. DD-1})$$

Where:

Decrease in SF₆ Inventory = (pounds of SF₆ stored in containers, but not in energized equipment, at the beginning of the year)-(pounds of SF₆ stored in containers, but not in energized equipment, at the end of the year).

Acquisitions of SF₆ = (pounds of SF₆ purchased from chemical producers or distributors in bulk) + (pounds of SF₆ purchased from equipment manufacturers or distributors with or inside equipment, including hermetically sealed-pressure switchgear) + (pounds of SF₆ returned to facility after off-site recycling).

Disbursements of SF₆ = (pounds of SF₆ in bulk and contained in equipment that is sold to other entities) + (pounds of SF₆ returned to suppliers) + (pounds of SF₆ sent off site for recycling) + (pounds of SF₆ sent off-site for destruction).

Net Increase in Total Nameplate Capacity of Equipment Operated = (The Nameplate Capacity of new equipment in pounds, including hermetically sealed-pressure switchgear)-(Nameplate Capacity of retiring equipment in pounds, including hermetically sealed-pressure switchgear). (Note that Nameplate Capacity refers to the full and proper charge of equipment rather than to the actual charge, which may reflect leakage).

(b) Use Equation DD-1 of this section to estimate emissions of PFCs from power transformers, substituting the relevant PFC(s) for SF₆ in the equation.

40 CFR §98.304 Monitoring And QA/QC Requirements.

(a) For calendar year 2011 monitoring, you may follow the provisions of [§98.3\(d\)\(1\)](#) through (d)(2) for best available monitoring methods rather than follow the monitoring requirements of this section. For purposes of this subpart, any reference in [§98.3\(d\)\(1\)](#) through (d)(2) to 2010 means 2011, to March 31 means June 30, and to April 1 means July 1. Any reference to the effective date in [§98.3\(d\)\(1\)](#) through (d)(2) means February 28, 2011.

(b) You must adhere to the following QA/QC methods for reviewing the completeness and accuracy of reporting:

(b)(1) Review inputs to Equation DD-1 of this section to ensure inputs and outputs to the company's system are included.

(b)(2) Do not enter negative inputs and confirm that negative emissions are not calculated. However, the Decrease in SF₆ Inventory and the Net Increase in Total Nameplate Capacity may be calculated as negative numbers.

(b)(3) Ensure that beginning-of-year inventory matches end-of-year inventory from the previous year.

(b)(4) Ensure that in addition to SF₆ purchased from bulk gas distributors, SF₆ purchased from Original Equipment Manufacturers (OEM) and SF₆ returned to the facility from off-site recycling are also accounted for among the total additions.

(c) Ensure the following QA/QC methods are employed throughout the year:

(c)(1) Ensure that cylinders returned to the gas supplier are consistently weighed on a scale that is certified to be accurate and precise to within 2 pounds of true weight and is periodically recalibrated per the manufacturer's specifications. Either measure residual gas (the amount of gas remaining in returned cylinders) or have the gas supplier measure it. If the gas supplier weighs the residual gas, obtain from the gas supplier a detailed monthly accounting, within ± 2 pounds, of residual gas amounts in the cylinders returned to the gas supplier.

(c)(2) Ensure that cylinders weighed for the beginning and end of year inventory measurements are weighed on a scale that is certified to be accurate and precise to within 2 pounds of true weight and is periodically recalibrated per the manufacturer's specifications. All scales used to

measure quantities that are to be reported under [§98.306](#) must be calibrated using calibration procedures specified by the scale manufacturer. Calibration must be performed prior to the first reporting year. After the initial calibration, recalibration must be performed at the minimum frequency specified by the manufacturer.

(c)(3) Ensure all substations have provided information to the manager compiling the emissions report (if it is not already handled through an electronic inventory system).

(d) GHG Monitoring Plans, as described in [§98.3\(g\)\(5\)](#), must be completed by April 1, 2011.

40 CFR §98.305 Procedures For Estimating Missing Data.

A complete record of all measured parameters used in the GHG emissions calculations is required. Replace missing data, if needed, based on data from equipment with a similar nameplate capacity for SF₆ and PFC, and from similar equipment repair, replacement, and maintenance operations.

40 CFR §98.306 Data Reporting Requirements.

In addition to the information required by [§98.3\(c\)](#), each annual report must contain the following information for each electric power system, by chemical:

(a) Nameplate capacity of equipment (pounds) containing SF₆ and nameplate capacity of equipment (pounds) containing each PFC:

(a)(1) Existing at the beginning of the year (excluding hermetically sealed-pressure switchgear).

(a)(2) New during the year (all SF₆-insulated equipment, including hermetically sealed-pressure switchgear).

(a)(3) Retired during the year (all SF₆-insulated equipment, including hermetically sealed-pressure switchgear).

(b) Transmission miles (length of lines carrying voltages above 35 kilovolt).

(c) Distribution miles (length of lines carrying voltages at or below 35 kilovolt).

(d) Pounds of SF₆ and PFC stored in containers, but not in energized equipment, at the beginning of the year.

(e) Pounds of SF₆ and PFC stored in containers, but not in energized equipment, at the end of the year.

(f) Pounds of SF₆ and PFC purchased in bulk from chemical producers or distributors.

(g) Pounds of SF₆ and PFC purchased from equipment manufacturers or distributors with or inside equipment, including hermetically sealed-pressure switchgear.

(h) Pounds of SF₆ and PFC returned to facility after off-site recycling.

(i) Pounds of SF₆ and PFC in bulk and contained in equipment sold to other entities.

(j) Pounds of SF₆ and PFC returned to suppliers.

(k) Pounds of SF₆ and PFC sent off-site for recycling.

(l) Pounds of SF₆ and PFC sent off-site for destruction.

40 CFR §98.307 Records That Must Be Retained.

In addition to the information required by [§98.3\(g\)](#), you must retain records of the information reported and listed in [§98.306](#).

40 CFR §98.308 Definitions.

Except as specified in this section, all terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

Facility, with respect to an electric power system, means the electric power system as defined in this paragraph. An electric power system is comprised of all electric transmission and distribution equipment insulated with or containing SF₆ or PFCs that is linked through electric power transmission or distribution lines and functions as an integrated unit, that is owned, serviced, or maintained by a single electric power transmission or distribution entity (or multiple entities with a common owner), and that is located between: (1) The point(s) at which electric energy is obtained from an electricity generating unit or a different electric power transmission or distribution entity that does not have a common owner, and (2) the point(s) at which any customer or another electric power transmission or distribution entity that does not have a common owner receives the electric energy. The facility also includes servicing inventory for such equipment that contains SF₆ or PFCs.

Electric power transmission or distribution entity means any entity that transmits, distributes, or supplies electricity to a consumer or other user, including any company, electric cooperative, public electric supply corporation, a similar Federal department (including the Bureau of Reclamation or the Corps of Engineers), a municipally owned electric department offering service to the public, an electric public utility district, or a jointly owned electric supply project.

Operator, for the purposes of this subpart, means any person who operates or supervises a facility, excluding a person whose sole responsibility is to ensure reliability, balance load or otherwise address electricity flow.