Environmental Protection Agency

§ 98.450 Definition of the source category.

The electrical equipment manufacturing or refurbishment category consists of processes that manufacture or refurbish gas-insulated substations, circuit breakers, other switchgear, gas-insulated lines, or power transformers (including gas-containing components of such equipment) containing sulfur-hexafluoride (SF₆) or perfluorocarbons (PFCs). The processes include equipment testing, installation, manufacturing, decommissioning and disposal, refurbishing, and storage in gas cylinders and other containers.

§ 98.451 Reporting threshold.

You must report GHG emissions under this subpart if your facility contains an electrical equipment manufacturing or refurbishing process and the facility meets the requirements of § 98.2(a)(1). Electrical equipment manufacturing and refurbishing facilities covered by this rule are those that have total annual purchases of SF₆ and PFCs that exceed 23,000 pounds.

§ 98.452 GHGs to report.

(a) You must report SF₆ and PFC emissions at the facility level. Annual emissions from the facility must include SF₆ and PFC emissions from equipment that is installed at an off-site electric power transmission or distribution location whenever emissions from installation activities (e.g., filling) occur before the title to the equipment is transferred to the electric power transmission or distribution entity.

(b) You must report CO₂, N₂O and CH₄ emissions from each stationary combustion unit. You must calculate and report these emissions under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C of this part.

§ 98.453 Calculating GHG emissions.

(a) For each electrical equipment manufacturer or refubisher, estimate the annual SF₆ and PFC emissions using the mass-balance approach in Equation SS–1 of this section:

\[
\text{User Emissions} = (\text{Decrease in SF}_6 \text{ Inventory}) + (\text{Acquisitions of SF}_6) - (\text{Disbursements of SF}_6) \tag{Eq. SS-1}
\]

Where:

Decrease in SF₆ Inventory = (Pounds of SF₆ stored in containers at the beginning of the year) − (Pounds of SF₆ stored in containers at the end of the year).

Acquisitions of SF₆ = (Pounds of SF₆ purchased from chemical producers or suppliers in bulk) + (Pounds of SF₆ returned by equipment users) + (Pounds of SF₆ returned to site after off-site recycling).

Disbursements of SF₆ = (Pounds of SF₆ contained in new equipment delivered to customers) + (Pounds of SF₆ delivered to equipment users in containers) + (Pounds of SF₆ returned to suppliers) + (Pounds of SF₆ sent off-site for recycling) + (Pounds of SF₆ sent off-site for destruction).

(b) Use the mass-balance method in paragraph (a) of this section to estimate emissions of PFCs associated with the manufacture or refurbishment of power transformers, substituting the relevant PFC(s) for SF₆ in Equation SS–1 of this section.

(c) Estimate the disbursements of SF₆ or PFCs sent to customers in new equipment or cylinders or sent off-site for other purposes including for recycling, for destruction or to be returned to suppliers using Equation SS–2 of this section:

\[
D_{GHG} = \sum_{p=1}^{n} Q_p \tag{Eq. SS-2}
\]

Where:

\( D_{GHG} \) = The annual disbursement of SF₆ or PFCs sent to customers in new equipment or cylinders or sent off-site for other purposes including for recycling, for destruction or to be returned to suppliers.

\( Q_p \) = The mass of the SF₆ or PFCs charged into equipment or containers over the period \( p \) sent to customers or sent off-site for other purposes including for recycling, for destruction or to be returned to suppliers.

\( n \) = The number of periods in the year.