

# SF<sub>6</sub> & ALTERNATIVES

## COALITION

### **U.S. EPA Greenhouse Gas Reporting Rule 40 C.F.R Subpart DD**

The following is meant to be a brief explanation of the U.S. reporting process and requirements for owners and operators of gas-insulated equipment.

#### **Who Is Required to Report?**

Owners and operators of electric power transmission and distribution equipment with a total nameplate capacity exceeding 17,820 lbs (7,838 kg) of sulfur hexafluoride (SF<sub>6</sub>) and/or perfluorocarbons (PFC) are required to report emissions of these gases from their electric power transmission and distribution systems.

- SF<sub>6</sub> and PFC insulated equipment includes gas-insulated substations, circuit breakers, other switchgear, gas-insulated lines and power transformers containing these gases.
- An electric power system is defined as the collection of SF<sub>6</sub> and/or PFC insulated equipment linked through electric power transmission or distribution lines and operated as an integrated unit by one electric power entity or several entities that have a single owner.

#### **What is the Reporting Cycle?**

Subpart DD took effect January 1, 2011. Reporting years correspond with calendar years. Reports must be submitted by March 31st for the prior year information.

#### **How Are Emissions Calculated?**

Owners and operators of these systems use a mass-balance process accounting for the following factors:

- Decrease in SF<sub>6</sub> Inventory: The SF<sub>6</sub> stored in containers at the beginning of the year minus the SF<sub>6</sub> stored in containers at the end of the year.
- Acquisitions of SF<sub>6</sub>: The sum of the amount of SF<sub>6</sub> that is: 1) purchased from distributors; 2) purchased from equipment manufacturers; and 3) returned to the facility after offsite recycling.
- Disbursements of SF<sub>6</sub>: The sum of the amount of SF<sub>6</sub> that is: 1) in bulk and contained in equipment that is sold to other entities; 2) returned to suppliers; and 3) sent off site for recycling or destruction.

(NOTE: Facilities returning containers to a supplier either weigh the containers themselves or have the supplier weigh the containers, obtaining a detailed monthly account, within 1%. The scale used in this process is certified to be accurate within 1% of the true weight and recalibrated at least annually.)

- Net Increase in Total Nameplate Capacity of Equipment Operated: The nameplate capacity of new equipment minus the nameplate capacity of retiring equipment.

(NOTE: Nameplate capacity refers to the full and proper charge of gas specified by the equipment manufacturer rather than the actual, which may reflect leakage.)

Emissions = Decrease in SF6 Inventory + Acquisitions of SF6 – Disbursements of SF6 – Net Increase in the Nameplate Capacity of Equipment

### **What Information is Reported?**

In addition to reporting emissions, owners and operators are required to report the following:

- Nameplate capacity of: 1) equipment containing SF6 at the beginning of the year; 2) new equipment purchased during the year; and 3) equipment retired during the year.
- Transmission miles (length of lines carrying voltages at or above 34.5 kV).
- SF6 sales and purchases.
- SF6 sent off site for destruction.
- SF6 sent off site for recycling.
- SF6 returned to site after recycling.
- SF6 stored in containers at the beginning and end of the year.
- SF6 with or inside new equipment purchased during the year.
- SF6 with or inside equipment sold to other entities.
- SF6 returned to suppliers.

For more information on this rule please visit: <https://www.epa.gov/ghgreporting>