

**Instructions for Completing the
Annual Gas Insulated Switchgear Report using Cal e-GGRT**

Part 1 – Facility Information

Entity Name: Enter the legal name of the entity (company, corporation, agency, etc.) that is required to report under this regulation.

ARB ID: Enter the ID number that ARB assigned to the entity for reporting under this regulation.

Record Location (if different from the physical address of the entity's headquarters)

Street: Enter the street name and number where records are kept for the entity required to report under this regulation.

City: Enter the city where records are kept for the entity required to report under this regulation.

State: Enter the state where records are kept for the entity required to report under this regulation.

Zip/Postal Code: Enter the zip/postal code where records are kept for the entity required to report under this regulation.

Preparer's Name: Enter the name of the person who prepared this report.

Preparer's e-Mail: Enter the e-mail address of the person who prepared this report.

Preparer's Phone: Enter the ten digit phone number of the person who prepared this report.

Part 2 – Emissions and Equipment Information

Annual Emissions

Reporting Year: Enter the year for which SF₆ emission data is being reported.

Annual SF₆ Emissions (in pounds): Calculate the annual SF₆ emissions (in pounds) using the formula, below, that is found in title 17, California Code of Regulations, Section 95356(d) of the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear.

Annual SF₆ Emissions. GIS owners must use the following equation to determine their SF₆ emissions:

Equation for determining annual SF₆ emissions:

User Emissions = (Decrease in SF₆ inventory) + (Acquisitions of SF₆) – (Disbursements of SF₆) – (Net increase in total nameplate capacity of active GIS equipment owned).

Where:

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

Acquisitions of SF₆ = (SF₆ purchased in bulk from chemical producers, distributors, or other entities) + (SF₆ purchased from equipment manufacturers, distributors, or other entities with or inside active GIS equipment) + (SF₆ returned to site after off-site recycling).

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

Net increase in total nameplate capacity of active GIS equipment owned = (The nameplate capacity of new active GIS equipment) - (Nameplate capacity of retiring active GIS equipment).

Annual SF₆ Emission Rate (as a percentage): Calculate the annual SF₆ emission rate (as a percentage) using the formula, below, that is found in title 17, California Code of Regulations, Section 95356(e) of the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear.

Annual SF₆ Emission Rate. GIS owners shall use the follow equations to determine their SF₆ emission rate.

Equation for determining emissions rate:

$$ER = \frac{\text{Emissions}}{C_{avg}}$$

Where: ER = Emission Rate
 Emissions = Annual emissions per section 95356(d) (lbs)
 C_{avg} = Average system nameplate capacity as expressed in the equation below (lbs)

$$C_{avg} = \frac{\sum_{i=1}^n (d_i C_i)}{365}$$

Where: C_{avg} = The average system nameplate capacity (lbs)
 n = The number of GIS devices
 d_i = The number of days during the year the GIS device was in active service
 C_i = The nameplate capacity (lbs) of the GIS device

GIS Equipment

GIS Serial Number: Enter the serial number for each piece of GIS equipment. If a device does not have a serial number, then any permanently affixed unique identifier can be used in place of a serial number.

GIS Equipment Type: Enter the equipment type (e.g., bus, breaker, switch, etc.) for each piece of GIS equipment.

GIS Seal Type: Enter the seal type (hermetic or non-hermetic) for each piece of GIS equipment.

GIS Manufacturer: Enter the manufacturer for each piece of GIS equipment.

GIS Date Manufactured: Enter the date that each piece of GIS equipment was manufactured in *mm/dd/yyyy* format. If only the year is known, enter January 1 and the year (e.g., 01/01/1985). If only the year and month are known, enter the date using the first day of that month and the year (e.g., 06/01/1989). If the entire date that the device was manufactured cannot be determined, ARB would accept a best estimated date.

ARB would expect that the GIS owner would record how the estimated date was determined, but not submit it with the annual report.

GIS Voltage Capacity: Record the voltage capacity of each piece of GIS equipment.

GIS SF₆ Capacity (lbs.): Record the SF₆ capacity, in pounds, of each piece of GIS equipment.

GIS Status: Record the status (active or inactive) of each piece of GIS equipment.

SF₆ Transferred (for each piece of GIS equipment above, that SF₆ gas was added to or removed from, enter the dates and amounts of SF₆ transferred)

GIS Serial Number: Enter the serial number for each piece of GIS equipment that SF₆ gas was added to or removed from.

Date SF₆ Transferred: Enter the date that SF₆ was transferred for each piece of GIS equipment that gas was added to or removed from.

Amount Transferred (lbs.): Enter the amount, in pounds, of SF₆ transferred for each piece of GIS equipment that gas was added to or removed from. Use a positive number for additions and a negative number for withdrawals.

SF₆ Gas Containers

Container ID: Enter the container ID number for each SF₆ container.

Container Size (SF₆ capacity in lbs.): Enter the amount, in pounds, that each gas container is designed to hold. (Table 1, below, contains information gathered from SF₆ distributors that may aid in determining container size. If you are unable to determine a container size, you may need to contact the manufacturer or distributor.)

TABLE 1
SF₆ Cylinder Sizes

<u>Company</u>	<u>Designation</u>	<u>Size (lbs.)</u>
Air Gas Great Lakes	200	115
Air Gas Great Lakes	150	80
Air Gas Great Lakes	80	35
Matheson Tri-Gas	1A	247
Matheson Tri-Gas	1R	139
Matheson Tri-Gas	QX	109
Matheson Tri-Gas	2	92
Matheson Tri-Gas	2R	81
Matheson Tri-Gas	GX	81
Matheson Tri-Gas	LD	61
Matheson Tri-Gas	3	49
Matheson Tri-Gas	3R	39
Matheson Tri-Gas	UX	39
Matheson Tri-Gas	4	27
Polar Technology	D	5
Polar Technology	40cf	18
Polar Technology	55cf	28
Polar Technology	80cf	38
Polar Technology	110cf	57.5
Polar Technology	125cf	57.5
Polar Technology	220cf	115
Polar Technology	250cf	115
Praxair	K	115
Praxair	AS	70

Street Address: For each SF₆ container, enter the street name and number where it is stored.

City: For each SF₆ container, enter the city where it is stored.

State: For each SF₆ container, enter the state where it is stored.

Zip/Postal Code: For each SF₆ container, enter the zip/postal code where it is stored.

Container Weight (lbs.): Enter the weight, in pounds, of SF₆ in each container at the end of each calendar year, and when gas containers are added to or removed from inventory.