Magnesium Production Facilities Monitoring Checklist

United States Environmental Protection Agency

Greenhouse Gas Reporting Program

What Must Be Monitored at Each Magnesium Production Facility that Meets the Requirements of §98.200 and §98.201?

Each magnesium production facility must report the following gases:

- ☐ Annual emissions (consumption) of cover gas and carrier gas, including SF_6, HFC-134a, FK 5-1-12, CO_2, and any other GHG (metric tons). (E_x in Equation T-1, T-2)

Each magnesium production facility must report the following additional information:

- ☐ Type of magnesium production process (e.g., primary, secondary, die casting).
- ☐ Average cover gas flow rate and composition during the reporting period (e.g., standard cubic feet per minute).
- ☐ Overall cover gas usage rate for the facility (e.g., 1 kg of SF_6 /metric ton of Mg).
- ☐ Average cover gas flow rate and composition during the reporting period (e.g., standard cubic feet per minute).
- ☐ Amount of magnesium produced or processed over the reporting period for each process type (metric tons).
- ☐ For missing data, the length of time data were missing, method for estimating missing data, and quantity of emissions thereby estimated.
- ☐ If applicable, an explanation of any change in facility cover gas usage rate greater than 30 percent.

Each magnesium production facility must monitor the following parameters based on the gas consumption tracking method used:

Inventory Method (Eqn. T-1)

- ☐ Inventory of each cover gas or carrier gas stored in cylinders or other containers at the beginning of the year, including residual gas amounts (heels), in kg.
- ☐ Acquisitions of each cover gas or carrier gas during the year through purchases or other transactions, including heels in cylinders or other containers returned to the magnesium production or processing facility, in kg.
- ☐ Inventory of each cover gas or carrier gas stored in cylinders or other containers at the end of the year, including heels, in kg.
- ☐ Disbursements of each cover gas or carrier gas to sources and locations outside the facility through sales or other transactions during the year in cylinders or other containers returned by the magnesium production or processing facility to the gas supplier, including heels, in kg.

Cylinder Tracking Method (Eqn. T-2, T-3)

- ☐ Mass of the container's contents (kg) at the beginning of the container-use period.
- ☐ The number of periods (p) in the reporting year.
- ☐ Mass of the container's contents (kg) at the end of container-use period.

Mass Flow Controller Method

- ☐ Mass of each cover gas or carrier gas measured using a mass flow controller may be utilized as the mass of cover of carrier gas consumed during the period.
- ☐ The number of periods (p) in the reporting year.

See also the information sheet for Magnesium Production at
http://www.epa.gov/ghgreporting/reporters/subpart/t.html