

# Magnesium Production Facilities Monitoring Checklist



## 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<sub>6</sub>, HFC-134a, FK 5-1-12, CO<sub>2</sub>, and any other GHG (metric tons). (E<sub>x</sub> in Equation T-1, T-2)

### **Each magnesium production facility must report the following additional information:**

- |  |   |
|--|---|
| <input type="checkbox"/> Type of magnesium production process (e.g., primary, secondary, die casting).                                   | <input type="checkbox"/> Amount of magnesium produced or processed over the reporting period for each process type (metric tons).                                 |
| <input type="checkbox"/> Average cover gas flow rate and composition during the reporting period (e.g., standard cubic feet per minute). | <input type="checkbox"/> For missing data, the length of time data were missing, method for estimating missing data, and quantity of emissions thereby estimated. |
| <input type="checkbox"/> Overall cover gas usage rate for the facility (e.g., 1 kg of SF <sub>6</sub> /metric ton of Mg).                | <input type="checkbox"/> If applicable, an explanation of any change in facility cover gas usage rate greater than 30 percent.                                    |
| <input type="checkbox"/> Average cover gas flow rate and composition during the reporting period (e.g., standard cubic feet per minute). |   |

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

**Inventory Method (Eqn. T-1)**

- |  |   |
|--|---|
| <input type="checkbox"/> 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.   | <input type="checkbox"/> Inventory of each cover gas or carrier gas stored in cylinders or other containers at the end of the year, including heels, in kg.   |
| <input type="checkbox"/> 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. | <input type="checkbox"/> 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)**

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|--|--|
| <input type="checkbox"/> Mass of the container's contents (kg) at the beginning of the container-use period. | <input type="checkbox"/> Mass of the container's contents (kg) at the end of container-use period. |
| <input type="checkbox"/> The number of periods (p) in the reporting year.                                    |  |

**Mass Flow Controller Method**

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|--|---|
| <input type="checkbox"/> 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. | <input type="checkbox"/> The number of periods (p) in the reporting year. |
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*See also the information sheet for Magnesium Production at <http://www.epa.gov/climatechange/emissions/subpart/t.html>*

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