§ 98.205 Procedures for estimating missing data.

(a) A complete record of all measured parameters used in the GHG emission calculations is required. Therefore, whenever a quality-assured value of a required parameter is unavailable, a substitute data value for the missing parameter will be used in the calculations as specified in paragraph (b) of this section.

(b) Replace missing data on the emissions of cover or carrier gases by multiplying magnesium production during the missing data period by the average cover or carrier gas usage rate from the most recent period when operating conditions were similar to those for the period for which the data are missing. Calculate the usage rate for each cover or carrier gas using Equation 7–4 of this section:

\[ R_{GHG} = \frac{C_{GHG}}{Mg} \times 0.001 \]  (Eq. T-4)

Where:
- \( R_{GHG} \) = The usage rate for a particular cover or carrier gas over the period of comparable operation (metric tons gas/metric ton Mg).
- \( C_{GHG} \) = The consumption of that cover or carrier gas over the period of comparable operation (kg).
- \( Mg \) = The magnesium produced or fed into the process over the period of comparable operation (metric tons).
- 0.001 = Conversion factor from kg to metric tons.

(c) If the precise before and after weights are not available, it should be assumed that the container was emptied in the process (i.e., quantity purchased should be used, less heel).

§ 98.206 Data reporting requirements.

In addition to the information required by §98.3(c), each annual report must include the following information at the facility level:

(a) Emissions of each cover or carrier gas in metric tons.

(b) Types of production processes at the facility (e.g., primary, secondary, die casting).

(c) Amount of magnesium produced or processed in metric tons for each process type. This includes the output of primary and secondary magnesium production processes and the input to magnesium casting processes.

(d) Cover and carrier gas flow rate (e.g., standard cubic feet per minute) for each production unit and composition in percent by volume.

(e) For any missing data, you must report the length of time the data were missing for each cover gas or carrier gas, the method used to estimate emissions in their absence, and the quantity of emissions thereby estimated.

(f) The annual cover gas usage rate for the facility for each cover gas, excluding the carrier gas (kg gas/metric ton Mg).

(g) If applicable, an explanation of any change greater than 30 percent in the facility’s cover gas usage rate (e.g., installation of new melt protection technology or leak discovered in the cover gas delivery system that resulted in increased emissions).

(h) A description of any new melt protection technologies adopted to account for reduced or increased GHG emissions in any given year.

§ 98.207 Records that must be retained.

In addition to the records specified in §98.3(g), you must retain the following information at the facility level:

(a) Check-out and weigh-in sheets and procedures for gas cylinders.

(b) Accuracy certifications and calibration records for scales including the method or manufacturer’s specification used for calibration.

(c) Residual gas amounts (heel) in cylinders sent back to suppliers.

(d) Records, including invoices, for gas purchases, sales, and disbursements for all GHGs.

§ 98.208 Definitions.

All terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part. Additionally, some sector-specific definitions are provided below:

Carrier gas means the gas with which cover gas is mixed to transport and dilute the cover gas thus maximizing its efficient use. Carrier gases typically include CO\(_2\), N\(_2\), and/or dry air.

Cover gas means SF\(_6\), HFC-134a, fluorinated ketone (FK 5–1–12) or other gas used to protect the surface of molten magnesium from rapid oxidation and burning in the presence of air. The
Environmental Protection Agency

§ 98.213

molten magnesium may be the surface of a casting or ingot production operation or the surface of a crucible of molten magnesium that feeds a casting operation.

Subpart U—Miscellaneous Uses of Carbonate

§ 98.210 Definition of the source category.

(a) This source category includes any equipment that uses carbonates listed in Table U–1 in manufacturing processes that emit carbon dioxide. Table U–1 includes the following carbonates: limestone, dolomite, ankerite, magnesite, siderite, rhodochrosite, or sodium carbonate. Facilities are considered to emit CO₂ if they consume at least 2,000 tons per year of carbonates heated to a temperature sufficient to allow the calcination reaction to occur.

(b) This source category does not include equipment that uses carbonates or carbonate containing minerals that are consumed in the production of cement, glass, ferroalloys, iron and steel, lead, lime, phosphoric acid, pulp and paper, soda ash, sodium bicarbonate, sodium hydroxide, or zinc.

§ 98.211 Reporting threshold.

You must report GHG emissions from miscellaneous uses of carbonate if your facility uses carbonates as defined in §98.210 of this subpart and the facility meets the requirements of either §98.2(a)(1) or (a)(2).

§ 98.212 GHGs to report.

You must report CO₂ process emissions from all miscellaneous carbonate use at your facility as specified in this subpart.

§ 98.213 Calculating GHG emissions.

You must determine CO₂ process emissions from carbonate use in accordance with the procedures specified in either paragraphs (a) or (b) of this section.

(a) Calculate the process emissions of CO₂ using calcination fractions with Equation U–1 of this section.

\[ E_{\text{CO}_2} = \sum_{i=1}^{n} M_i \times EF_i \times F_i \times \frac{2000}{2205} \]  
(Eq. U-1)

Where:
- \( E_{\text{CO}_2} \) = Annual CO₂ mass emissions from consumption of carbonates (metric tons).
- \( M_i \) = Annual mass of carbonate type \( i \) consumed (tons).
- \( EF_i \) = Emission factor for the carbonate type \( i \), as specified in Table U-1 to this subpart, metric tons CO₂/metric ton carbonate consumed.
- \( F_i \) = Fraction calcination achieved for each particular carbonate type \( i \) (decimal fraction). As an alternative to measuring the calcination fraction, a value of 1.0 can be used.
- \( n \) = Number of carbonate types.
- \( 2000/2205 \) = Conversion factor to convert tons to metric tons.

(b) Calculate the process emissions of CO₂ using actual mass of output carbonates with Equation U–2 of this section.

\[ E_{\text{CO}_2} = \left[ \sum_{k=1}^{m} (M_k \times EF_k) - \sum_{j=1}^{n} (M_j \times EF_j) \right] \times \frac{2000}{2205} \]  
(Eq. U-2)

759