Environmental Protection Agency

§ 98.114 Monitoring and QA/QC requirements.

(ii) Determine the combined annual process CO\textsubscript{2} emissions from the EAFs at your facility using Equation K–2 of this section.

\[
\text{CO}_2 = \sum_{k=1}^{k} \text{E}\text{CO}_2k \quad \text{(Eq. K-2)}
\]

Where:

- \(\text{CO}_2\) = Annual process CO\textsubscript{2} emissions from any ferroalloy listed in §98.110 (metric tons).
- \(\text{E}\text{CO}_2k\) = Annual process CO\textsubscript{2} emissions calculated from EAF \(k\) calculated using Equation K–1 of this section (metric tons).
- \(k\) = Total number of EAFs at facility used for the production of any ferroalloy listed in §98.110.

(c) If GHG emissions from an EAF are vented through the same stack as any combustion unit or process equipment that reports CO\textsubscript{2} emissions using a CEMS that complies with the Tier 4 Calculation Methodology in subpart C of this part (General Stationary Fuel Combustion Sources), then the calculation methodology in paragraph (b) of this section shall not be used to calculate process emissions. The owner or operator shall report under this subpart the combined stack emissions according to the Tier 4 Calculation Methodology in §98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part.

(d) For the EAFs at your facility used for the production of any ferroalloy listed in Table K–1 of this subpart, you must calculate and report the annual CH\textsubscript{4} emissions using the procedure specified in paragraphs (d)(1) and (2) of this section.

(1) For each EAF, determine the annual CH\textsubscript{4} emissions using Equation K–3 of this section.

\[
\text{E}\text{CH}_4 = \sum_{i=1}^{i} \left( \frac{M\text{product}_i \times 2000}{2205} \times \text{EF}_{product}_i \right) \quad \text{(Eq. K-3)}
\]

Where:

- \(\text{E}\text{CH}_4\) = Annual process CH\textsubscript{4} emissions from an individual EAF (metric tons).
- \(M\text{product}_i\) = Annual mass of alloy product \(i\) produced in the EAF (tons).
- \(2000/2205\) = Conversion factor to convert tons to metric tons.
- \(\text{EF}_{product}_i\) = CH\textsubscript{4} emission factor for alloy product \(i\) from Table K–1 in this subpart (kg of CH\textsubscript{4} emissions per metric ton of alloy product \(i\)).

(2) Determine the combined process CH\textsubscript{4} emissions from the EAFs at your facility using Equation K–4 of this section.

\[
\text{CH}_4 = \sum_{j=1}^{j} \text{E}\text{CH}_4j \quad \text{(Eq. K-4)}
\]

Where:

- \(\text{CH}_4\) = Annual process CH\textsubscript{4} emissions from EAFs at facility used for the production of ferroalloys listed in Table K–1 of this subpart (metric tons).
- \(\text{E}\text{CH}_4j\) = Annual process CH\textsubscript{4} emissions from EAF \(j\) calculated using Equation K–3 of this section (metric tons).

\(j\) = Total number of EAFs at facility used for the production of ferroalloys listed in Table K–1 of this subpart.


§ 98.114 Monitoring and QA/QC requirements.

If you determine annual process CO\textsubscript{2} emissions using the carbon mass balance procedure in §98.113(b)(2), you must meet the requirements specified in paragraphs (a) and (b) of this section.

(a) Determine the annual mass for each material used for the calculations of annual process CO\textsubscript{2} emissions using Equation K–1 of this subpart by summing the monthly mass for the material determined for each month of the calendar year. The monthly mass may be determined using plant instruments used for accounting purposes, including either direct measurement of the quantity of the material placed in the unit or by calculations using process operating information.
§ 98.115 Procedures for estimating missing data.

A complete record of all measured parameters used in the GHG emissions calculations in §98.113 is required. Therefore, whenever a quality- assured value of a required parameter is unavailable, a substitute data value for the missing parameter shall be used in the calculations as specified in the paragraphs (a) and (b) of this section. You must document and keep records of the procedures used for all such estimates.

(a) If you determine CO\textsubscript{2} emissions for the EAFs at your facility using the carbon mass balance procedure in §98.113(b), 100 percent data availability is required for the carbon content of the input and output materials. You must repeat the test for average carbon contents of inputs according to the procedures in §98.114(b) if data are missing.

(b) For missing records of the monthly mass of carbon-containing inputs and outputs, the substitute data value must be based on the best available estimate of the mass of the inputs and outputs from on all available process data or data used for accounting purposes, such as purchase records.

(c) If you are required to calculate CH\textsubscript{4} emissions for an EAF at your facility as specified in §98.113(d), the estimate is based an annual quantity of certain alloy products, so 100 percent data availability is required.

§ 98.116 Data reporting requirements.

In addition to the information required by §98.3(c), each annual report must contain the information specified in paragraphs (a) through (e) of this section, as applicable:

(a) Annual facility ferroalloy product production capacity (tons).

(b) Annual production for each ferroalloy product identified in §98.110, from each EAF (tons).

(c) Total number of EAFs at facility used for production of ferroalloy products.

(d) If a CEMS is used to measure CO\textsubscript{2} emissions, then you must report under this subpart the relevant information required by §98.36 for the Tier 4 Calculation Methodology and the following information specified in paragraphs (d)(1) through (d)(3) of this section.

(1) Annual process CO\textsubscript{2} emissions (in metric tons) from each EAF used for the production of any ferroalloy product identified in §98.110.

(2) Annual process CH\textsubscript{4} emissions (in metric tons) from each EAF used for the production of any ferroalloy listed in Table K–1 of this subpart (metric tons).

(3) Identification number of each EAF.