§ 98.64 Monitoring and QA/QC requirements.

(a) Effective December 31, 2010 for smelters with no prior measurement or effective December 31, 2012, for facilities with historic measurements, the smelter-specific slope coefficients, overvoltage emission factors, and weight fractions used in Equations F–2, F–3, and F–4 of this subpart must be measured in accordance with the recommendations of the EPA/IAI Protocol for Measurement of Tetrafluoromethane (CF₄) and Hexafluoroethane (C₂F₆) Emissions from Primary Aluminum Production (2008) (incorporated by reference, see §98.7), except the minimum frequency of measurement shall be every 10 years unless a change occurs in the control algorithm that affects the mix of types of anode effects or the nature of the anode effect termination routine. Facilities which operate at less than 0.2 anode effect minutes per cell day or operate with less than 1.4mV anode effect overvoltage can use either smelter-specific slope coefficients or the technology specific default values in Table F–1 of this subpart.

(b) The minimum frequency of the measurement and analysis is annually except as follows:

(1) Monthly for anode effect minutes per cell day (or anode effect overvoltage and current efficiency).

(2) Monthly for aluminum production.
§ 98.65 Procedures for estimating missing data.

A complete record of all measured parameters used in the GHG emissions calculations is required. Therefore, whenever a quality-assured value of a required parameter is unavailable (e.g., if a meter malfunctions during unit operation or if a required sample measurement is not taken), a substitute data value for the missing parameter shall be used in the calculations, according to the following requirements:

(a) Where anode or paste consumption data are missing, CO\textsubscript{2} emissions can be estimated from aluminum production per Equation F–8 of this section.

\[
\text{ECO}_2 = \text{EF}_p \times \text{MP}_p + \text{EF}_s \times \text{MP}_s \quad (\text{Eq. F}-8)
\]

Where:

- ECO\textsubscript{2} = CO\textsubscript{2} emissions from anode and/or paste consumption, metric tons CO\textsubscript{2}.
- \text{EF}_p = Prebake technology specific emission factor (1.6 metric tons CO\textsubscript{2}/metric ton aluminum produced).
- \text{MP}_p = Metal production from prebake process (metric tons Al).
- \text{EF}_s = S\ddot{a}derberg technology specific emission factor (1.7 metric tons CO\textsubscript{2}/metric ton Al produced).
- \text{MP}_s = Metal production from S\ddot{a}derberg process (metric tons Al).

(b) For other parameters, use the average of the two most recent data points after the missing data.


§ 98.66 Data reporting requirements.

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

(a) Annual aluminum production in metric tons.

(b) Type of smelter technology used.

(c) The following PFC-specific information on an annual basis:

(1) Perfluoromethane emissions and perfluoroethane emissions from anode effects in all prebake and all S\ddot{a}derberg electrolysis cells combined.

(2) Anode effect minutes per cell-day (AE-mins/cell-day), anode effect frequency (AE/cell-day), anode effect duration (minutes), (Or anode effect overvoltage factor ((kg CF\textsubscript{4}/metric ton Al)/ (mV/cell day)), potline overvoltage (mV/cell day), current efficiency (%).)

(3) Smelter-specific slope coefficients (or overvoltage emission factors) and the last date when the smelter-specific-slope coefficients (or overvoltage emission factors) were measured.

(d) Method used to measure the frequency and duration of anode effects (or overvoltage).

(e) The following CO\textsubscript{2}-specific information for prebake cells:

(1) Annual anode consumption.

(2) Annual CO\textsubscript{2} emissions from the smelter.

(f) The following CO\textsubscript{2}-specific information for S\ddot{a}derberg cells:

(1) Annual paste consumption.

(2) Annual CO\textsubscript{2} emissions from the smelter.

(g) Smelter-specific inputs to the CO\textsubscript{2} process equations (e.g., levels of sulfur and ash) that were used in the calculation, on an annual basis.

(h) Exact data elements required will vary depending on smelter technology (e.g., point-feed prebake or S\ddot{a}derberg) and process control technology (e.g., Pechiney or other).