
40 C.F.R. § 98.63

Calculating GHG emissions.

(a) The annual value of each PFC compound (CF_4 , C_2F_6) shall be estimated from the sum of monthly values using Equation F-1 of this section:

$$E_{PFC} = \sum_{m=1}^{m=12} E_m \quad (\text{Eq. F-1})$$

Where:

E_{PFC} = Annual emissions of each PFC compound from aluminum production (metric tons PFC). E_m = Emissions of the individual PFC compound from aluminum production for the month “m” (metric tons PFC).

(b) Use Equation F-2 of this section to estimate CF_4 emissions from anode effect duration or Equation F-3 of this section to estimate CF_4 emissions from overvoltage, and use Equation F-4 of this section to estimate C_2F_6 emissions from anode effects from each prebake and Söderberg electrolysis cell.

$$E_{CF_4} = S_{CF_4} \times AEM \times MP \times 0.001 \quad (\text{Eq. F-2})$$

Where:

E_{CF_4} = Monthly CF_4 emissions from aluminum production (metric tons CF_4). S_{CF_4} = The slope coefficient ((kg CF_4 /metric ton Al)/(AE-Mins/cell-day)). AEM = The anode effect minutes per cell-day (AE-Mins/cell-day). MP = Metal production (metric tons Al), where AEM and MP are calculated monthly.

$$E_{CF_4} = EF_{CF_4} \times MP \times 0.001 \quad (\text{Eq. F-3})$$

Where:

E_{CF_4} = Monthly CF_4 emissions from aluminum production (metric tons CF_4). EF_{CF_4} = The overvoltage emission factor (kg CF_4 /metric ton Al). MP = Metal production (metric tons Al), where MP is calculated monthly.

This document is only available to subscribers. Please log in or purchase access.

[Purchase Login](#)