§ 98.313 Calculating GHG emissions.

You must calculate and report the annual process CO₂ emissions for each chloride process line using the procedures in either paragraph (a) or (b) of this section.

(a) Calculate and report under this subpart the process CO₂ emissions by operating and maintaining a CEMS according to the Tier 4 Calculation Methodology specified in §98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part (General Stationary Fuel Combustion Sources).

(b) Calculate and report under this subpart the annual process CO₂ emissions for each chloride process line by determining the mass of calcined petroleum coke consumed in each line as specified in paragraphs (b)(1) through (b)(3) of this section. Use Equation EE–1 of this section to calculate annual combined process CO₂ emissions from all process lines and use Equation EE–2 of this section to calculate annual process CO₂ emissions for each process line. If your facility generates carbon-containing waste, use Equation EE–3 of this section to estimate the annual quantity of carbon-containing waste generated and its carbon contents according to §98.314(e) and (f):

1. You must calculate the annual CO₂ process emissions from all process lines at the facility using Equation EE–1 of this section:

\[ \text{CO}_2 = \sum_{p=1}^{m} E_p \]  

(EE-1)

Where:

\( \text{CO}_2 \) = Annual CO₂ emissions from titanium dioxide production facility (metric tons/year).

\( E_p \) = Annual CO₂ emissions from chloride process line \( p \) (metric tons), determined using Equation EE–2 of this section.

\( p \) = Process line.

\( m \) = Number of separate chloride process lines located at the facility.

2. You must calculate the annual CO₂ process emissions from each process lines at the facility using Equation EE–2 of this section:

\[ E_p = \frac{12}{12} \times \frac{44}{12} \times \frac{2000}{2205} \times CCF_p \]  

(EE-2)

Where:

\( E_p \) = Annual CO₂ emissions from chloride process line \( p \) (metric tons), determined using Equation EE–2 of this section.

\( p \) = Process line.

\( CCF_p \) = Annual CO₂ emissions from chloride process line \( p \) (metric tons), determined using Equation EE–2 of this section.

\( m \) = Number of separate chloride process lines located at the facility.

\( CCF_p \) = Annual CO₂ emissions from chloride process line \( p \) (metric tons), determined using Equation EE–2 of this section.
§ 98.314 Monitoring and QA/QC requirements.

(a) You must measure your consumption of calcined petroleum coke using plant instruments used for accounting purposes including direct measurement weighing the petroleum coke fed into your process (by belt scales or a similar device) or through the use of purchase records.

(b) You must document the procedures used to ensure the accuracy of monthly calcined petroleum coke consumption measurements.

(c) You must determine the carbon content of the calcined petroleum coke each month based on reports from the supplier. Alternatively, facilities can measure monthly carbon contents of the calcined petroleum coke using ASTM D3176–89 (Reapproved 2002) Standard Practice for Ultimate Analysis of Coal and Coke (incorporated by reference, see §98.7) and ASTM D5373–08 Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Laboratory Samples of Coal (incorporated by reference, see §98.7).

(d) For quality assurance and quality control of the supplier data, you must conduct an annual measurement of the carbon content from a representative sample of the calcined petroleum coke consumed using ASTM D3176–89 and ASTM D5373–08.

(e) You must determine the quantity of carbon-containing waste generated from each titanium production line using plant instruments used for accounting purposes including direct measurement weighing the carbon-containing waste not used during the process (by belt scales or a similar device) or through the use of sales records.

(f) You must determine the carbon contents of the carbon-containing waste from each titanium production line on an annual basis by collecting and analyzing a representative sample of the material using ASTM D3176–89 and ASTM D5373–08.

§ 98.315 Procedures for estimating missing data.

For the petroleum coke input procedure in §98.313(b), a complete record of all measured parameters used in the GHG emissions calculations is required (e.g., carbon content values, etc.). Therefore, whenever the monitoring and quality assurance procedures in §98.315 cannot be followed, a substitute data value for the missing parameter shall be used in the calculations as