

§ 98.82

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the facility meets the requirements of either § 98.2(a)(1) or (2).

§ 98.82 GHGs to report.

You must report:

(a) CO₂ process emissions from calcination in each kiln.

(b) CO₂ combustion emissions from each kiln.

(c) CH₄ and N₂O combustion emissions from each kiln. You must calculate and report these emissions under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C.

(d) CO₂, CH₄, and N₂O emissions from each stationary combustion unit other than kilns. You must report these emissions under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C.

§ 98.83 Calculating GHG emissions.

You must calculate and report the annual process CO₂ emissions from each kiln using the procedure in paragraphs (a) and (b) of this section.

(a) For each cement kiln that meets the conditions specified in § 98.33(b)(4)(ii) or (b)(4)(iii), you must calculate and report under this subpart the combined process and combustion

CO₂ emissions by operating and maintaining a CEMS to measure CO₂ emissions 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) For each kiln that is not subject to the requirements in paragraph (a) of this section, calculate and report the process and combustion CO₂ emissions from the kiln by using the procedure in either paragraph (c) or (d) of this section.

(c) Calculate and report under this subpart the combined process and combustion CO₂ emissions by operating and maintaining a CEMS to measure CO₂ emissions 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).

(d) Calculate and report process and combustion CO₂ emissions separately using the procedures specified in paragraphs (d)(1) through (d)(4) of this section.

(1) Calculate CO₂ process emissions from all kilns at the facility using Equation H-1 of this section:

$$CO_{2CMF} = \sum_{m=1}^k CO_{2Cli,m} + CO_{2rm} \quad (\text{Eq. H-1})$$

Where:

CO_{2CMF} = Annual process emissions of CO₂ from cement manufacturing, metric tons.

CO_{2Cli,m} = Total annual emissions of CO₂ from clinker production from kiln m, metric tons.

CO_{2rm} = Total annual emissions of CO₂ from raw materials, metric tons.

k = Total number of kilns at a cement manufacturing facility.

(2) *CO₂ emissions from clinker production.* Calculate CO₂ emissions from each kiln using Equations H-2 through H-5 of this section.

$$CO_{2Cli,m} = \sum_{j=1}^p \left[(Cli_j) * (EF_{Cli,j}) * \frac{2000}{2205} \right] + \sum_{i=1}^r \left[(CKD_i) * (EF_{CKD_i}) * \frac{2000}{2205} \right] \quad (\text{Eq. H-2})$$

Where:

Cli_j = Quantity of clinker produced in month j from kiln m, tons.