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

§ 98.262   GHGs to report.

(a) You must report CO_2 process emissions from each wet-process phosphoric acid process line.

(b) You must report under subpart C of this part (General Stationary Fuel Combustion Sources) the emissions of CO_2, CH_4, and N_2O from each stationary combustion unit following the requirements of subpart C of this part.

§ 98.263   Calculating GHG emissions.

You must calculate and report the annual process CO_2 emissions from each wet-process phosphoric acid process line using the procedures in either paragraph (a) or (b) of this section.

(a) Calculate and report under this subpart the process CO_2 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 process CO_2 emissions using the procedures in paragraphs (b)(1) and (b)(2) of this section.

(1) Calculate the annual CO_2 mass emissions from each wet-process phosphoric acid process line using the methods in paragraphs (b)(1)(i) or (ii) of this section, as applicable.

(i) If your process measurement provides the inorganic carbon content of phosphate rock as an output, calculate and report the process CO_2 emissions from each wet-process phosphoric acid process line using Equation Z–1a of this section:

$$E_m = \sum_{i=1}^{b} \sum_{n=1}^{z} \left(IC_{n,i} * P_{n,i} \right) * \frac{2000}{2205} * \frac{44}{12} \qquad \text{(Eq. Z-1a)}$$

Where:

E_m = Annual CO_2 mass emissions from a wet-process phosphoric acid process line m according to this Equation Z–1a (metric tons).

$IC_{n,i}$ = Inorganic carbon content of a grab sample batch of phosphate rock by origin i obtained during month n, from the carbon analysis results (percent by weight, expressed as a decimal fraction).

$P_{n,i}$ = Mass of phosphate rock by origin i consumed in month n by wet-process phosphoric acid process line m (tons).

z = Number of months during which the process line m operates.

b = Number of different types of phosphate rock in month, by origin. If the grab sample is a composite sample of rock from more than one origin, b = 1.

2000/2205 = Conversion factor to convert tons to metric tons.

44/12 = Ratio of molecular weights, CO_2 to carbon.

(ii) If your process measurement provides the CO_2 emissions directly as an output, calculate and report the process CO_2 emissions from each wet-process phosphoric acid process line using Equation Z–1b of this section:

$$E_m = \sum_{i=1}^{b} \sum_{n=1}^{z} \left(CO_{2_{n,i}} * P_{n,i} \right) * \frac{2000}{2205} \qquad \text{(Eq. Z-1b)}$$

Where:

E_m = Annual CO_2 mass emissions from a wet-process phosphoric acid process line m according to this Equation Z–1b (metric tons).

$CO_{2n,i}$ = Carbon dioxide emissions of a grab sample batch of phosphate rock by origin i obtained during month n (percent by weight, expressed as a decimal fraction).

$P_{n,i}$ = Mass of phosphate rock by origin i consumed in month n by wet-process phosphoric acid process line m (tons).
z = Number of months during which the process line m operates.
b = Number of different types of phosphate rock in month, by origin. If the grab sample is a composite sample of rock from more than one origin, b=1.
2000/2205 = Conversion factor to convert tons to metric tons.

(2) You must determine the total emissions from the facility using Equation Z–2 of this section:

$$CO_2 = \sum_{m=1}^{p} E_m \qquad \text{(Eq. Z-2)}$$

Where:

CO_2 = Annual process CO_2 emissions from phosphoric acid production facility (metric tons/year).
E_m = Annual process CO_2 emissions from wet-process phosphoric acid process line m (metric tons/year).
p = Number of wet-process phosphoric acid process lines.

(c) If GHG emissions from a wet-process phosphoric acid process line are vented through the same stack as any combustion unit or process equipment that reports CO_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.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66468, Oct. 28, 2010]

§ 98.264 Monitoring and QA/QC requirements.

(a) You must obtain a monthly grab sample of phosphate rock directly from the rock being fed to the process line before it enters the mill using one of the following methods. You may conduct the representative bulk sampling using a method published by a consensus standards organization, or you may use industry consensus standard practice methods, including but not

limited to the Phosphate Mining States Methods Used and Adopted by the Association of Fertilizer and Phosphate Chemists (AFPC) (P.O. Box 1645, Bartow, Florida 33831, (863) 534–9755, *http://afpc.net, paul.mcafee@mosaicco.com*). If phosphate rock is obtained from more than one origin in a month, you must obtain a sample from each origin of rock or obtain a composite representative sample.

(b) You must determine the carbon dioxide or inorganic carbon content of each monthly grab sample of phosphate rock (consumed in the production of phosphoric acid). You may use a method published by a consensus standards organization, or you may use industry consensus standard practice methods, including but not limited to the Phosphate Mining States Methods Used and Adopted by AFPC (P.O. Box 1645, Bartow, Florida 33831, (863) 534–9755, *http://afpc.net, paul.mcafee@mosaicco.com*).

(c) You must determine the mass of phosphate rock consumed each month (by origin) in each wet-process phosphoric acid process line. You can use existing plant procedures that are used for accounting purposes (such as sales records) or you can use data from existing monitoring equipment that is used to measure total mass flow of phosphorous-bearing feed under 40 CFR part 60 or part 63.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66468, Oct. 28, 2010]

§ 98.265 Procedures for estimating missing data.

(a) For each missing value of the inorganic carbon content of phosphate rock or carbon dioxide (by origin), you must use the appropriate default factor provided in Table Z–1 this subpart. Alternatively, you must determine a substitute data value by calculating the arithmetic average of the quality-assured values of inorganic carbon contents of phosphate rock of origin i from samples immediately preceding and immediately following the missing data incident. You must document and keep records of the procedures used for all such estimates.

(a) For each missing value of the inorganic carbon content of phosphate

653