

## **SECTION 4. APPENDICES**

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## SECTION 4. APPENDIX A

### Citation Formats and Glossary of Common Terms

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#### CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

##### Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit  
“AO” identifies the permit as an Air Operation Permit  
“123456” identifies the specific permit project number

##### New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located  
“2222” represents the specific facility ID number for that county  
“001” identifies the specific permit project number  
“AC” identifies the permit as an air construction permit  
“AF” identifies the permit as a minor source federally enforceable state operation permit  
“AO” identifies the permit as a minor source air operation permit  
“AV” identifies the permit as a major Title V air operation permit

##### PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality  
“FL” means that the permit was issued by the State of Florida  
“317” identifies the specific permit project number

##### Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

##### Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

#### GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

µg: microgram

AAQS: Ambient Air Quality Standard

acf: actual cubic feet

acfm: actual cubic feet per minute

ARMS: Air Resource Management System  
(Department’s database)

BACT: best available control technology

bhp: brake horsepower

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

CFR: Code of Federal Regulations

CAA: Clean Air Act

CMS: continuous monitoring system

CO: carbon monoxide

CO<sub>2</sub>: carbon dioxide

## SECTION 4. APPENDIX A

### Citation Formats and Glossary of Common Terms

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<b>COMS:</b> continuous opacity monitoring system	<b>NSPS:</b> New Source Performance Standards
<b>DARM:</b> Division of Air Resource Management	<b>O&amp;M:</b> operation and maintenance
<b>DEP:</b> Department of Environmental Protection	<b>O<sub>2</sub>:</b> oxygen
<b>Department:</b> Department of Environmental Protection	<b>Pb:</b> lead
<b>dscf:</b> dry standard cubic feet	<b>PM:</b> particulate matter
<b>dscfm:</b> dry standard cubic feet per minute	<b>PM<sub>10</sub>:</b> particulate matter with a mean aerodynamic diameter of 10 microns or less
<b>EPA:</b> Environmental Protection Agency	<b>ppm:</b> parts per million
<b>ESP:</b> electrostatic precipitator (control system for reducing particulate matter)	<b>ppmv:</b> parts per million by volume
<b>EU:</b> emissions unit	<b>ppmvd:</b> parts per million by volume, dry basis
<b>F:</b> fluoride	<b>QA:</b> quality assurance
<b>F.A.C.:</b> Florida Administrative Code	<b>QC:</b> quality control
<b>F.A.W.:</b> Florida Administrative Weekly	<b>PSD:</b> prevention of significant deterioration
<b>F.D.:</b> forced draft	<b>psi:</b> pounds per square inch
<b>F.S.:</b> Florida Statutes	<b>PTE:</b> potential to emit
<b>FGD:</b> flue gas desulfurization	<b>RACT:</b> reasonably available control technology
<b>FGR:</b> flue gas recirculation	<b>RATA:</b> relative accuracy test audit
<b>ft<sup>2</sup>:</b> square feet	<b>RBLC:</b> EPA's RACT/BACT/LAER Clearinghouse
<b>ft<sup>3</sup>:</b> cubic feet	<b>SAM:</b> sulfuric acid mist
<b>gpm:</b> gallons per minute	<b>scf:</b> standard cubic feet
<b>gr:</b> grains	<b>scfm:</b> standard cubic feet per minute
<b>HAP:</b> hazardous air pollutant	<b>SIC:</b> standard industrial classification code
<b>Hg:</b> mercury	<b>SIP:</b> State Implementation Plan
<b>I.D.:</b> induced draft	<b>SNCR:</b> selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
<b>ID:</b> identification	<b>SO<sub>2</sub>:</b> sulfur dioxide
<b>kPa:</b> kilopascals	<b>TPD:</b> tons/day
<b>lb:</b> pound	<b>TPH:</b> tons per hour
<b>MACT:</b> maximum achievable technology	<b>TPY:</b> tons per year
<b>MMBtu:</b> million British thermal units	<b>TRS:</b> total reduced sulfur
<b>MSDS:</b> material safety data sheets	<b>UTM:</b> Universal Transverse Mercator coordinate system
<b>MW:</b> megawatt	<b>VE:</b> visible emissions
<b>NESHAP:</b> National Emissions Standards for Hazardous Air Pollutants	<b>VOC:</b> volatile organic compounds
<b>NO<sub>x</sub>:</b> nitrogen oxides	

## SECTION 4. APPENDIX B

### General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - a. Have access to and copy any records that must be kept under conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of noncompliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

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### General Conditions

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (Greenhouse Gases);
  - b. Determination of Prevention of Significant Deterioration (Greenhouse Gases); and
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - (a) The date, exact place, and time of sampling or measurements;
    - (b) The person responsible for performing the sampling or measurements;
    - (c) The dates analyses were performed;
    - (d) The person responsible for performing the analyses;
    - (e) The analytical techniques or methods used;
    - (f) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SECTION 4. APPENDIX C**  
**GREENHOUSE GASES REPORTING REQUIREMENTS**

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**40 CFR Part 98, Mandatory Greenhouse Gas Reporting, Subpart S—Lime Manufacturing**

**98.190 DEFINITION OF THE SOURCE CATEGORY.** [Link to Subpart S](#)

- (a) Lime manufacturing plants (LMPs) engage in the manufacture of a lime product by calcination of limestone, dolomite, shells or other calcareous substances as defined in 40 CFR 63.7081(a)(1).
- (b) This source category includes all LMPs unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, or only processes sludge containing calcium carbonate from water softening processes. The lime manufacturing source category consists of marketed and non-marketed lime manufacturing facilities.
- (c) Lime kilns at pulp and paper manufacturing facilities must report emissions under subpart AA of this part (Pulp and Paper Manufacturing).

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66464, Oct. 28, 2010; 78 FR 71958, Nov. 29, 2013]

**98.191 REPORTING THRESHOLD.**

You must report GHG emissions under this subpart if your facility is a lime manufacturing plant as defined in §98.190 and the facility meets the requirements of either §98.2(a)(1) or (a)(2).

**98.192 GHGs TO REPORT.**

You must report:

- (a) CO<sub>2</sub> process emissions from lime kilns.
- (b) CO<sub>2</sub> emissions from fuel combustion at lime kilns.
- (c) N<sub>2</sub>O and CH<sub>4</sub> emissions from fuel combustion at each lime kiln. You must report these emissions under 40 CFR part 98, subpart C (General Stationary Fuel Combustion Sources).
- (d) CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions from each stationary fuel combustion unit other than lime kilns. You must report these emissions under 40 CFR part 98, subpart C (General Stationary Fuel Combustion Sources).
- (e) CO<sub>2</sub> collected and transferred off site under 40 CFR part 98, following the requirements of subpart PP of this part (Suppliers of Carbon Dioxide (CO<sub>2</sub>)).

**98.193 CALCULATING GHG EMISSIONS.**

You must calculate and report the annual process CO<sub>2</sub> emissions from all lime kilns combined using the procedure in paragraphs (a) and (b) of this section.

- (a) If all lime kilns meet the conditions specified in §98.33(b)(4)(ii) or (iii), you must calculate and report under this subpart the combined process and combustion CO<sub>2</sub> emissions from all lime kilns by operating and maintaining a CEMS to measure CO<sub>2</sub> 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) If CEMS are not required to be used to determine CO<sub>2</sub> emissions from all lime kilns under paragraph (a) of this section, then you must calculate and report the process and combustion CO<sub>2</sub> emissions from the lime kilns by using the procedures in either paragraph (b)(1) or (b)(2) of this section.
- (c) \* \* \*
  - (1) Calculate and report under this subpart the combined process and combustion CO<sub>2</sub> emissions from all lime kilns by operating and maintaining a CEMS to measure CO<sub>2</sub> emissions from all lime kilns 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).
  - (2) Calculate and report process and combustion CO<sub>2</sub> emissions from all lime kilns separately using the procedures specified in paragraphs (b)(2)(i) through (v) of this section.

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**GREENHOUSE GASES REPORTING REQUIREMENTS**

- (i) You must calculate a monthly emission factor for each type of lime produced using Equation S-1 of this section. Calcium oxide and magnesium oxide content must be analyzed monthly for each lime product type that is produced:

$$EF_{LIME,i,n} = \left[ (SR_{CaO} * CaO_{i,n}) + (SR_{MgO} * MgO_{i,n}) \right] * \frac{2000}{2205} \quad (\text{Eq S-1})$$

Where:

$EF_{LIME,i,n}$  = Emission factor for lime type i, for month n (metric tons CO<sub>2</sub>/ton lime).

$SR_{CaO}$  = Stoichiometric ratio of CO<sub>2</sub> and CaO for calcium carbonate [see Table S-1 of this subpart] (metric tons CO<sub>2</sub>/metric tons CaO).

$SR_{MgO}$  = Stoichiometric ratio of CO<sub>2</sub> and MgO for magnesium carbonate (See Table S-1 of this subpart) (metric tons CO<sub>2</sub>/metric tons MgO).

$CaO_{i,n}$  = Calcium oxide content for lime type i, for month n, determined according to §98.194(c) (metric tons CaO/metric ton lime).

$MgO_{i,n}$  = Magnesium oxide content for lime type i, for month n, determined according to §98.194(c) (metric tons MgO/metric ton lime).

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

- (ii) You must calculate a monthly emission factor for each type of calcined byproduct or waste sold (including lime kiln dust) using Equation S-2 of this section:

$$EF_{LKD,i,n} = \left[ (SR_{CaO} * CaO_{LKD,i,n}) + (SR_{MgO} * MgO_{LKD,i,n}) \right] * \frac{2000}{2205} \quad (\text{Eq S-2})$$

Where:

$EF_{LKD,i,n}$  = Emission factor for calcined lime byproduct/waste type i sold, for month n (metric tons CO<sub>2</sub>/ton lime byproduct).

$SR_{CaO}$  = Stoichiometric ratio of CO<sub>2</sub> and CaO for calcium carbonate (see Table S-1 of this subpart) (metric tons CO<sub>2</sub>/metric tons CaO).

$SR_{MgO}$  = Stoichiometric ratio of CO<sub>2</sub> and MgO for magnesium carbonate (See Table S-1 of this subpart) (metric tons CO<sub>2</sub>/metric tons MgO).

$CaO_{LKD,i,n}$  = Calcium oxide content for calcined lime byproduct/waste type i sold, for month n (metric tons CaO/metric ton lime).

$MgO_{LKD,i,n}$  = Magnesium oxide content for calcined lime byproduct/waste type i sold, for month n (metric tons MgO/metric ton lime).

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

- (iii) You must calculate the annual CO<sub>2</sub> emissions from each type of calcined byproduct or waste that is not sold (including lime kiln dust and scrubber sludge) using Equation S-3 of this section:

$$E_{waste,i} = \left[ (SR_{CaO} * CaO_{waste,i}) + (SR_{MgO} * MgO_{waste,i}) \right] * M_{waste,i} * \frac{2000}{2205} \quad (\text{Eq. S-3})$$

Where:

$E_{waste,i}$  = Annual CO<sub>2</sub> emissions for calcined lime byproduct or waste type i that is not sold (metric tons CO<sub>2</sub>).

$SR_{CaO}$  = Stoichiometric ratio of CO<sub>2</sub> and CaO for calcium carbonate (see Table S-1 of this subpart) (metric tons CO<sub>2</sub>/metric tons CaO).

$SR_{MgO}$  = Stoichiometric ratio of CO<sub>2</sub> and MgO for magnesium carbonate (See Table S-1 of this subpart) (metric tons CO<sub>2</sub>/metric tons MgO).

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$CaO_{waste,i}$  = Calcium oxide content for calcined lime byproduct or waste type i that is not sold (metric tons CaO/metric ton lime).

$MgO_{waste,i}$  = Magnesium oxide content for calcined lime byproduct or waste type i that is not sold (metric tons MgO/metric ton lime).

$M_{waste,i}$  = Annual weight or mass of calcined byproducts or wastes for lime type i that is not sold (tons).

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

- (iv) You must calculate annual CO<sub>2</sub> process emissions for all lime kilns using Equation S-4 of this section:

$$E_{CO_2} = \sum_{i=1}^t \sum_{n=1}^{12} (EF_{LIME,i,n} * M_{LIME,i,n}) + \sum_{i=1}^b \sum_{n=1}^{12} EF_{LKD,i,n} * M_{LKD,i,n} + \sum_{i=1}^z E_{waste,i} \quad (\text{Eq. S-4})$$

Where:

$E_{CO_2}$  = Annual CO<sub>2</sub> process emissions from lime production from all lime kilns (metric tons/year).

$EF_{LIME,i,n}$  = Emission factor for lime type i produced, in calendar month n (metric tons CO<sub>2</sub>/ton lime) from Equation S-1 of this section.

$M_{LIME,i,n}$  = Weight or mass of lime type i produced in calendar month n (tons).

$EF_{LKD,i,n}$  = Emission factor of calcined byproducts or wastes sold for lime type i in calendar month n, (metric tons CO<sub>2</sub>/ton byproduct or waste) from Equation S-2 of this section.

$M_{LKD,i,n}$  = Monthly weight or mass of calcined byproducts or waste sold (such as lime kiln dust, LKD) for lime type i in calendar month n (tons).

$E_{waste,i}$  = Annual CO<sub>2</sub> emissions for calcined lime byproduct or waste type i that is not sold (metric tons CO<sub>2</sub>) from Equation S-3 of this section.

t = Number of lime types produced

b = Number of calcined byproducts or wastes that are sold.

z = Number of calcined byproducts or wastes that are not sold.

- (v) Calculate and report under subpart C of this part (General Stationary Fuel Combustion Sources) the combustion CO<sub>2</sub> emissions from each lime kiln according to the applicable requirements in subpart C.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66464, Oct. 28, 2010; 78 FR 71958, Nov. 29, 2013]

**98.194 MONITORING AND QA/QC REQUIREMENTS.**

- (a) You must determine the total quantity of each type of lime product that is produced and each calcined byproduct or waste (such as lime kiln dust) that is sold. The quantities of each should be directly measured monthly with the same plant instruments used for accounting purposes, including but not limited to, calibrated weigh feeders, rail or truck scales, and barge measurements. The direct measurements of each lime product shall be reconciled annually with the difference in the beginning of and end of year inventories for these products, when measurements represent lime sold.
- (b) You must determine the annual quantity of each calcined byproduct or waste generated that is not sold by either direct measurement using the same instruments identified in paragraph (a) of this section or by using a calcined byproduct or waste generation rate.

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- (c) You must determine the chemical composition (percent total CaO and percent total MgO) of each type of lime product that is produced and each type of calcined byproduct or waste sold according to paragraph (c)(1) or (2) of this section. You must determine the chemical composition of each type of lime product that is produced and each type of calcined byproduct or waste sold on a monthly basis. You must determine the chemical composition for each type of calcined byproduct or waste that is not sold on an annual basis.
- (1) ASTM C25-06 Standard Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime (incorporated by reference—see §98.7).
  - (2) The National Lime Association's CO<sub>2</sub> Emissions Calculation Protocol for the Lime Industry English Units Version, February 5, 2008 Revision-National Lime Association (incorporated by reference—see §98.7).
- (d) You must use the analysis of calcium oxide and magnesium oxide content of each lime product that is produced and that is collected during the same month as the production data in monthly calculations.
- (e) You must follow the quality assurance/quality control procedures (including documentation) in National Lime Association's CO<sub>2</sub> Emissions Calculation Protocol for the Lime Industry English Units Version, February 5, 2008 Revision—National Lime Association (incorporated by reference—see §98.7).

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66465, Oct. 28, 2010; 78 FR 71958, Nov. 29, 2013]

**98.195 PROCEDURES FOR ESTIMATING MISSING DATA.**

For the procedure in §98.193(b)(1), a complete record of all measured parameters used in the GHG emissions calculations is required (e.g., oxide content, quantity of lime products, etc.). Therefore, whenever a quality-assured value of a required parameter is unavailable, a substitute data value for the missing parameter shall be used in the calculations as specified in paragraphs (a) or (b) of this section. You must document and keep records of the procedures used for all such estimates.

- (a) For each missing value of the quantity of lime produced (by lime type), and quantity of calcined byproduct or waste produced and sold, the substitute data value shall be the best available estimate based on all available process data or data used for accounting purposes.
- (b) For missing values related to the CaO and MgO content, you must conduct a new composition test according to the standard methods in §98.194 (c)(1) or (c)(2).

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66465, Oct. 28, 2010; 78 FR 71959, Nov. 29, 2013]

**98.196 DATA REPORTING REQUIREMENTS.**

In addition to the information required by §98.3(c), each annual report must contain the information specified in paragraphs (a) or (b) of this section, as applicable.

- (a) If a CEMS is used to measure CO<sub>2</sub> emissions, then you must report under this subpart the relevant information required by §98.36 and the information listed in paragraphs (a)(1) through (8) of this section.
  - (1) Method used to determine the quantity of lime that is produced and quantity of lime that is sold.
  - (2) Method used to determine the quantity of calcined lime byproduct or waste sold.
  - (3) Beginning and end of year inventories for each lime product that is produced, by type.
  - (4) Beginning and end of year inventories for calcined lime byproducts or wastes sold, by type.
  - (5) Annual amount of calcined lime byproduct or waste sold, by type (tons).
  - (6) Annual amount of lime product sold, by type (tons).
  - (7) Annual amount of calcined lime byproduct or waste that is not sold, by type (tons).
  - (8) Annual amount of lime product not sold, by type (tons).

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- (b) If a CEMS is not used to measure CO<sub>2</sub> emissions, then you must report the information listed in paragraphs (b)(1) through (17) of this section.
- (1) Annual CO<sub>2</sub> process emissions from all lime kilns combined (metric tons).
  - (2) Monthly emission factors (metric ton CO<sub>2</sub>/ton lime product) for each lime product type produced.
  - (3) Monthly emission factors for each calcined byproduct or waste by lime type that is sold.
  - (4) Standard method used (ASTM or NLA testing method) to determine chemical compositions of each lime type produced and each calcined lime byproduct or waste type.
  - (5) Monthly results of chemical composition analysis of each type of lime product produced and calcined byproduct or waste sold.
  - (6) Annual results of chemical composition analysis of each type of lime byproduct or waste that is not sold.
  - (7) Method used to determine the quantity of lime produced and/or lime sold.
  - (8) Monthly amount of lime product sold, by type (tons).
  - (9) Method used to determine the quantity of calcined lime byproduct or waste sold.
  - (10) Monthly amount of calcined lime byproduct or waste sold, by type (tons).
  - (11) Annual amount of calcined lime byproduct or waste that is not sold, by type (tons).
  - (12) Monthly weight or mass of each lime type produced (tons).
  - (13) Beginning and end of year inventories for each lime product that is produced.
  - (14) Beginning and end of year inventories for calcined lime byproducts or wastes sold.
  - (15) Annual lime production capacity (tons) per facility.
  - (16) Number of times in the reporting year that missing data procedures were followed to measure lime production (months) or the chemical composition of lime products sold (months).
  - (17) Indicate whether CO<sub>2</sub> was used on-site (i.e. for use in a purification process). If CO<sub>2</sub> was used on-site, provide the information in paragraphs (b)(17)(i) and (ii) of this section.
    - (i) The annual amount of CO<sub>2</sub> captured for use in the on-site process.
    - (ii) The method used to determine the amount of CO<sub>2</sub> captured.

[75 FR 66465, Oct. 28, 2010, as amended at 78 FR 71959, Nov. 29, 2013]

**98.197 RECORDS THAT MUST BE RETAINED.**

In addition to the records required by §98.3(g), you must retain the records specified in paragraphs (a) and (b) of this section.

- (a) Annual operating hours in calendar year.
- (b) Records of all analyses (e.g. chemical composition of lime products, by type) and calculations conducted.

**98.198 DEFINITIONS.**

All terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

**Table S-1, Part 98, Subpart S - Basic Parameters for Calculation of Emission Factors for Lime Production**

Variable	Stoichiometric ratio
SR <sub>CaO</sub>	0.7848
SR <sub>MgO</sub>	1.0918

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**GREENHOUSE GASES REPORTING REQUIREMENTS**

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**40 CFR Part 98, Subpart C—General Stationary Fuel Combustion Sources:** [Link to Subpart C](#)

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[Table C-1 to Subpart C of Part 98—Default CO<sub>2</sub> Emission Factors and High Heat Values for Various Types of Fuel](#)

[Table C-2 to Subpart C of Part 98—Default CH<sub>4</sub> and N<sub>2</sub>O Emission Factors for Various Types of Fuel](#)