Subpart AAAAA—National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

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WHAT THIS SUBPART COVERS

§63.7080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for lime manufacturing plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§63.7081 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions, unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, beet sugar manufacturing plant, or only processes sludge containing calcium carbonate from water softening processes.

- (1) An LMP is an establishment engaged in the manufacture of lime product (calcium oxide, calcium oxide with magnesium oxide, or dead burned dolomite) by calcination of limestone, dolomite, shells or other calcareous substances.
- (2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site.
 - (b) [Reserved]

§63.7082 What parts of my plant does this subpart cover?

- (a) This subpart applies to each existing or new lime kiln(s) and their associated cooler(s), and processed stone handling (PSH) operations system(s) located at an LMP that is a major source.
- (b) For purposes of complying with the PM emissions limitations of this subpart, a A-new lime kiln is a lime kiln, and (if applicable) its associated lime cooler, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.
- (c) For the purposes of complying with the HCl, mercury, organic HAP, and D/F emissions limitations of this subpart, a new lime kiln is a lime kiln (only) for which construction or reconstruction began after January 5, 2023, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.
- (d)(e) A new PSH operations system is the equipment in paragraph (g) of this section, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.

- (e)(d) A lime kiln or PSH operations system is reconstructed if it meets the criteria for reconstruction defined in §63.2.
- (f)(e) An existing lime kiln is any lime kiln, and (when complying with PM emissions limitations, if applicable if applicable) its associated lime cooler, that does not meet the definition of a new kiln of paragraph (b) and paragraph (c) of this section.
- (g)(f) An existing PSH operations system is any PHS operations system that does not meet the definition of a new PSH operations system in paragraph (c) of this section.
- (h)(g) A PSH operations system includes all equipment associated with PSH operations beginning at the processed stone storage bin(s) or open storage pile(s) and ending where the processed stone is fed into the kiln. It includes man-made processed stone storage bins (but not open processed stone storage piles), conveying system transfer points, bulk loading or unloading systems, screening operations, surge bins, bucket elevators, and belt conveyors. No other materials processing operations are subject to this subpart.
- (i)(h) Nuisance dust collectors on lime coolers are part of the lime materials processing operations and are not covered by this subpart.
 - (j)(i) Lime hydrators are not subject to this subpart.
 - (k)(i) Open material storage piles are not subject to this subpart.

§63.7083 When do I have to comply with this subpart?

- (a) If you have a new affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.
- (1) If you start up your affected source before January 5, 2004, you must comply with the PM emission limitations no later than January 5, 2004, and you must have completed all

applicable performance tests no later than July 5, 2004, except as noted in paragraphs $\frac{(e)(g)}{1}$ and (2) of this section.

- (2) If you start up your affected source after January 5, 2004, then you must comply with the PM emission limitations for new affected sources upon startup of your affected source and you must have completed all applicable performance tests no later than 180 days after startup, except as noted in paragraphs (e)(g)(1) and (2) of this section.
- (b) If you have an existing affected source, you must comply with the applicable PM emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than January 5, 2007, except as noted in paragraphs (e)(g)(1) and (2) of this section.
- (c) If you start up your affected source after [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER] then you must comply with all emission limitations for new affected sources upon startup of your affected source and you must have completed all applicable performance tests no later than 180 days after startup, except as noted in paragraphs (h)(1) and (2) of this section.
- (d) If you have an existing affected source, you must comply with all applicable emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than [INSERT 3 YEARS AFTER DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER], except as noted in paragraphs (h)(1) and (2) of this section.
- (e)(e) If you have an LMP that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the deadlines specified in paragraphs (ee)(1) and (2) of this section apply.

- (1) New affected sources at your LMP you must be in compliance with this subpart upon startup.
- (2) Existing affected sources at your LMP must be in compliance with this subpart within 3 years after your source becomes a major source of HAP.
- (d)(f) You must meet the notification requirements in §63.7130 according to the schedule in §63.7130 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.
- (e)(g)(1) If your affected source commenced construction or reconstruction on or before September, 16, 2019, then the compliance date for the revised requirements promulgated at §\$63.7090, 63.7100, 63.7112, 63.7113, 63.7121, 63.7130, 63.7131, 63.7132, 63.7140, 63.7141, 63.7142, and 63.7143 and Tables 2, 3, 4, 5, 7, 8 and 9 (except changes to the cross references to 63.6(f)(1) and (h)(1)) of 40 CFR 63, subpart AAAAA, published on July 24, 2020 is January 20, 2021.
- (2) If your affected source commenced construction or reconstruction after September 16, 2019, then the compliance date for the revised requirements promulgated at §§63.7090, 63.7100, 63.7112, 63.7113, 63.7121, 63.7130, 63.7131, 63.7132, 63.7140, 63.7141, 63.7142, and 63.7143 and Tables 2, 3, 4, 5, 7, 8 and 9 to this subpart, published on July 24, 2020 is July 24, 2020 or the date of initial startup, whichever is later.
- (h)(1) If your affected source commenced construction or reconstruction on or before [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER], then the compliance date for the revised requirements promulgated on [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER] is [INSERT DATE 3 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(2) If your affected source commenced construction or reconstruction after [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER], then the compliance date for the revised requirements promulgated on [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER] is [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER] or the date of initial startup, whichever is later.

EMISSION LIMITATIONS

§63.7090 What emission limitations must I meet?

- (a) You must meet each emission limit in Table 1 to this subpart that applies to you.
- (b) You must meet each operating limit in Table 3 to this subpart that applies to you.
- (c) On or after the relevant compliance date for your source as specified in §63.7083(e), you must meet each startup and shutdown period emission limit in Table 2 to this subpart that applies to you.
- (d) For those LMP using emissions averaging for either HCl emission limits or mercury emission limits in accordance with the procedures in §63.7114(b) and (c), must not exceed the applicable emission limits in Table 9 to this subpart.

GENERAL COMPLIANCE REQUIREMENTS

§63.7100 What are my general requirements for complying with this subpart?

(a) Prior to the relevant compliance date for your source as specified in §63.7083(e), you must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction. On and after the relevant compliance date for your source as specified in §63.7083(e), you must be in compliance with the applicable emission limitations (including operating limits) at all times. You may operate outside

of the established operating parameter limit(s) during performance tests in order to establish new operating limits.

- (b) Prior to the relevant compliance date for your source as specified in §63.7083(e), you must be in compliance with the opacity and visible emission (VE) limits in this subpart at all times, except during periods of startup, shutdown, and malfunction. On and after the relevant compliance date for your source as specified in §63.7083(e), you must be in compliance with the applicable opacity and VE limits at all times.
- (c) Prior to the relevant compliance date for your source as specified in §63.7083(e), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i). On and after the relevant compliance date for your source as specified in §63.7083(e), you must always operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- (d) You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 CFR part 70 or 40 CFR part 71 permit.

 Any subsequent changes to the plan must be submitted to the applicable permitting authority for

review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:

- (1) Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.
 - (2) A monitoring schedule for each emission unit.
- (3) Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1, 2 and 3 to this subpart, respectively. On and after the relevant compliance date for your source as specified in §63.7083(e), your OM&M plan must address periods of startup and shutdown.
- (4) Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:
 - (i) Calibration and certification of accuracy of each monitoring device;
- (ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;
- (iii) Prior to the relevant compliance date for your source as specified in §63.7083(e), ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(i) and (ii), (3), and (4)(ii). On and after the relevant compliance date for your source as specified in §63.7083(e), ongoing operation and maintenance procedures in accordance with the general requirements of paragraph (c) of this section and §§63.8(c)(1)(ii), (3), and (4)(ii); and

- (iv) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d).
 - (5) Procedures for monitoring process and control device parameters.
- (6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 3 to this subpart, including:
- (i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and
- (ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.
- (7) A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
- (e) Prior to the relevant compliance date for your source as specified in §63.7083(e), you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

TESTING AND INITIAL COMPLIANCE REQUIREMENTS

§63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?

- (a) If you have an existing affected source, you must complete all applicable performance tests within January 5, 2007, according to the provisions in §§63.7(a)(2) and 63.7114.
- (b) If you have a new affected source, and commenced construction or reconstruction between December 20, 2002, and January 5, 2004, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than 180

calendar days after January 5, 2004 or within 180 calendar days after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.

- (c) If you commenced construction or reconstruction between December 20, 2002, and January 5, 2004, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a demonstration of compliance with the promulgated emission limitation within January 5, 2007 or after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.
- (d) For each initial compliance requirement in Table 4 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within existing affected sources at LMP begins at 12:01 a.m. on the compliance date for existing affected sources, that is, the day following completion of the initial compliance demonstration, and ends at 3:01 a.m. on the same day.
- (e) For each initial compliance requirement in Table 4 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within new or reconstructed affected sources at LMP begins at 12:01 a.m. on the day following completion of the initial compliance demonstration, as required in paragraphs (b) and (c) of this section, and ends at 3:01 a.m. on the same day.
- (f) If your affected source commenced construction or reconstruction before [INSERT DATE OF FINAL RULE PUBLICATION IN THE FEDERAL REGISTER], you must demonstrate initial compliance with the emission limitation in in this subpart no later than [INSERT DATE 3 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or within 180 calendar days after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.

§63.7111 When must I conduct subsequent performance tests?

You must conduct a performance test within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.

§63.7112 What performance tests, design evaluations, and other procedures must I use?

- (a) You must conduct each performance test in Table 5 to this subpart that applies to you.
- (b) Prior to the relevant compliance date for your source as specified in \$63.7083(e), each performance test must be conducted according to the requirements in \$63.7(e)(1) and under the specific conditions specified in Table 5 to this subpart. Beginning [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], each performance test must include the methods specified in rows 19-24 of Table 5 to this subpart. On and after the relevant compliance date for your source as specified in \$63.7083(e), each performance test must be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to this subpart. Representative conditions exclude periods of startup and shutdown. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
- (c) Prior to the relevant compliance date for your source as specified in §63.7083(e), you may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1). On and after the relevant compliance date for your source as specified in

§63.7083(e), you may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7112(b).

- (d) Except for opacity and VE observations, you must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour or as specified in Table 5 to this subpart.
- (e) The emission rate of particulate matter (PM) from each lime kiln (and each lime cooler if there is a separate exhaust to the atmosphere from the lime cooler) must be computed for each run using Equation 1 of this section:

$$E = (C_k Q_k + C_c Q_c)/PK \qquad (Eq. 1)$$

Where:

E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.

 C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

 Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).

- C_c = Concentration of PM in the cooler effluent, grain/dscf. This value is zero if there is not a separate cooler exhaust to the atmosphere.
- Q_c = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.

P = Stone feed rate, tons per hour (ton/hr).

K = Conversion factor, 7000 grains per pound (grains/lb).

(f)(1) If you choose to meet a weighted average emission limit as specified in item 4 of Table 1 to this subpart, you must calculate a combined particulate emission rate from all kilns and coolers within your LMP using Equation 2 of this section:

$$E_T = \sum_{i=1}^{n} E_i P_i / \sum_{i=1}^{n} P_i$$
 (Eq. 2)

Where:

 E_T = Emission rate of PM from all kilns and coolers, lb/ton of stone feed.

E_i = Emission rate of PM from kiln i, or from kiln/cooler combination i, lb/ton of stone feed.

 P_i = Stone feed rate to kiln i, ton/hr.

n = Number of kilns you wish to include in averaging.

- (2) You do not have to include every kiln in this calculation, only include kilns you wish to average. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.
- (g) The weighted average PM emission limit from all kilns and coolers for which you are averaging must be calculated using Equation 3 of this section:

$$E_{TN} = \sum_{j=1}^{m} E_{j} P_{j} / \sum_{j=1}^{m} P_{j} \qquad (Eq. 3)$$

Where:

 E_{TN} = Weighted average PM emission limit for all kilns and coolers being included in averaging at the LMP, lb/ton of stone feed.

 $E_j = PM$ emission limit (0.10 or 0.12) for kiln j, or for kiln/cooler combination j, lb/ton of stone feed.

 P_i = Stone feed rate to kiln j, ton/hr.

- m = Number of kilns and kiln/cooler combinations you are averaging at your LMP. You must include the same kilns in the calculation of E_T and E_{TN} . Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.
- (h) Performance test results must be documented in complete test reports that contain the information required by paragraphs (h)(1) through (10) of this section, as well as all other relevant information. The plan to be followed during testing must be made available to the Administrator at least 60 days prior to testing.

- (1) A brief description of the process and the air pollution control system;
- (2) Sampling location description(s);
- (3) A description of sampling and analytical procedures and any modifications to standard procedures;
 - (4) Test results, including opacity;
 - (5) Quality assurance procedures and results;
- (6) Records of operating conditions during the test, preparation of standards, and calibration procedures;
 - (7) Raw data sheets for field sampling and field and laboratory analyses;
 - (8) Documentation of calculations;
 - (9) All data recorded and used to establish operating limits; and
 - (10) Any other information required by the test method.
 - (i) [Reserved]
- (j) You must establish any applicable 3-hour block average operating limit indicated in Table 3 to this subpart according to the applicable requirements in Table 4 to this subpart and paragraphs (j)(1) through (4) of this section.
- (1) Continuously record the parameter during the PM-performance test and include the parameter record(s) in the performance test report.
 - (2) Determine the average parameter value for each 15-minute period of each test run.
- (3) Calculate the test run average for the parameter by taking the average of all the 15-minute parameter values for the run.
 - (4) Calculate the 3-hour operating limit by taking the average of the three test run averages.

- (k) For each building enclosing any PSH operations that is subject to a VE limit, you must conduct a VE check according to item 18 in Table 5 to this subpart, and in accordance with paragraphs (k)(1) through (3) of this section.
- (1) Conduct visual inspections that consist of a visual survey of the building over the test period to identify if there are VE, other than condensed water vapor.
- (2) Select a position at least 15 but not more 1,320 feet from each side of the building with the sun or other light source generally at your back.
- (3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A-4 to part 60 of this chapter. However, the observer must meet the training requirements as described in EPA Method 22 in appendix A-7 to part 60 of this chapter.
- (1) When determining compliance with the opacity standards for fugitive emissions from PSH operations in item 8 of Table 1 to this subpart, you must conduct EPA Method 9 in appendix A-4 to part 60 of this chapter according to item 17 in Table 5 to this subpart, and in accordance with paragraphs (1)(1) through (3) of this section.
- (1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
- (2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.*, road dust). The required observer position relative to the sun must be followed.
- (3) If you use wet dust suppression to control PM from PSH operations, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered VE. When a water mist of this nature is present, you must observe emissions at a point in the plume where the mist is no longer visible.

- (m) On and after the relevant compliance date for your source as specified in §63.7083(e), during startup, kilns must be tested hourly to determine when lime product meets the definition of on-specification lime product.
- (n) The emission rate of mercury and hydrogen chloride (HCl) from each lime kiln (and each lime cooler as applicable) must be computed for each run using equation 4 to this paragraph (n):

Equation 4 to paragraph (n)

$$E = \frac{(C_k Q_k + C_c Q_c)}{KP} \qquad (Eq. 4)$$

Where:

E = Emission rate of mercury, pounds per thousand tons (lb/MMton) of lime produced or HCl pounds per ton (lb/ton) of lime produced.

 C_k = Concentration in the kiln effluent of mercury, micrograms/dry standard cubic feet ($\mu g/dscf$) or HCl, parts per million by volume on a dry basis (ppmvd).

 Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).

 C_c = Concentration in the cooler effluent of mercury, $\mu g/dscf$ or HCl, ppmvd. This value is zero if there is not a separate cooler exhaust to the atmosphere.

 Q_c = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.

P = Lime production rate, tons per hour (ton/hr).

K = Conversion factor, for mercury, $4.4x10^8$ micrograms per pound ($\mu g/lb$) for HCL $1.09x10^7$ ppmvd HCl per lb/dscf HCl.

(o) The concentration of total hydrocarbons and dioxins/furans shall be correct to 7 percent oxygen using equation 5 to this paragraph (o):

Equation 5 to paragraph (o)

$$C_{7\%} = C_{unc} * \frac{13.9}{(20.9 - C_{O2})}$$
 (Eq. 5)

Where:

 $C_{7\%}$ = concentration of total hydrocarbons ppmv as propane on a dry basis or dioxins/furans in ng/dscm corrected to 7 percent oxygen.

 C_{unc} = uncorrected total hydrocarbon concentration, ppmv as propane on a dry basis basis or dioxins/furans in ng/dscm.

 C_{O2} = concentration of oxygen (percent).

§63.7113 What are my monitoring installation, operation, and maintenance requirements?

- (a) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to your OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of this section, and you must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of this section
- (1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.
- (2) To calculate a valid hourly value, you must have at least four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according your OM&M plan, and use all valid data.
- (3) To calculate the average for each 3-hour block averaging period, you must use all valid data, and you must have at least 66 percent of the hourly averages for that period using only hourly average values that are based on valid data (*i.e.*, not from out-of-control periods).
- (4) You must conduct a performance evaluation of each CPMS in accordance with your OM&M plan.

- (5) You must continuously operate and maintain the CPMS according to the OM&M plan, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (b) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of this section.
 - (1) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.
- (2) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
 - (3) Conduct a flow sensor calibration check at least semiannually.
- (4) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.
- (c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of this section.
- (1) Locate the pressure sensor(s) in or as close to as possible a position that provides a representative measurement of the pressure.
 - (2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
- (3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.
 - (4) Check pressure tap pluggage daily.
- (5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.
- (6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

- (7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.
- (d) For each bag leak detection system (BLDS), you must meet any applicable requirements in paragraphs (a)(1) through (5) and (d)(1) through (10) of this section.
- (1) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
 - (2) The sensor on the BLDS must provide output of relative PM emissions.
- (3) The BLDS must be equipped with a device to continuously record the output signal from the sensor.
- (4) The BLDS must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.
- (5) The alarm must be located in an area where appropriate plant personnel will be able to hear it.
- (6) For a positive-pressure fabric filter (FF), each compartment or cell must have a bag leak detector (BLD). For a negative-pressure or induced-air FF, the BLD must be installed downstream of the FF. If multiple BLD are required (for either type of FF), the detectors may share the system instrumentation and alarm.
- (7) Each triboelectric BLDS must be installed, calibrated, operated, and maintained according to EPA–454/R–98–015, "Fabric Filter Bag Leak Detection Guidance," (incorporated by reference—see §63.14). Other types of bag leak detection systems must be installed, operated, calibrated, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

- (8) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways, according to section 5.0 of the EPA–454/R–98–015, "Fabric Filter Bag Leak Detection Guidance," (incorporated by reference--see §63.14):
 - (i) Adjust the range and the averaging period of the device.
 - (ii) Establish the alarm set points and the alarm delay time.
- (9) After initial adjustment, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by \$63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete FF inspection that demonstrates that the FF is in good operating condition, as defined in section 5.2 of the "Fabric Filter Bag Leak Detection Guidance," (incorporated by reference—see §63.14). Record each adjustment.
 - (10) Record the results of each inspection, calibration, and validation check.
- (e) For each PM detector, you must meet any applicable requirements in paragraphs (a)(1) through (5) and (e)(1) through (8) of this section.
- (1) The PM detector must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
 - (2) The sensor on the PM detector must provide output of relative PM emissions.
- (3) The PM detector must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.
- (4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

- (5) For a positive-pressure electrostatic precipitator (ESP), each compartment must have a PM detector. For a negative-pressure or induced-air ESP, the PM detector must be installed downstream of the ESP. If multiple PM detectors are required (for either type of ESP), the detectors may share the system instrumentation and alarm.
- (6) Particulate matter detectors must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.
- (7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:
 - (i) Adjust the range and the averaging period of the device.
 - (ii) Establish the alarm set points and the alarm delay time.
- (8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by \$63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official as defined in \$63.2 certifies in writing to the Administrator that the ESP has been inspected and found to be in good operating condition.
- (f) For each emission unit equipped with an add-on air pollution control device, you must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in item 6 of Table 3 to this subpart and record the results of each inspection.
- (g) For each COMS used to monitor an add-on air pollution control device, you must meet the requirements in paragraphs (g)(1) and (2) of this section.

- (1) Install the COMS at the outlet of the control device.
- (2) Install, maintain, calibrate, and operate the COMS as required by 40 CFR part 63, subpart A, General Provisions and according to Performance Specification (PS)-1 of appendix B to part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
- (h) For each mass flow rate monitor used for measuring the dry sorbent injection rate (*e.g.*, sorbent, activated carbon, etc.) you must meet the requirements of (h)(1) through (3) of this section.
- (1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.
- (2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.
- (3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.
- (i) For each temperature monitoring device installed to monitor the temperature of a thermal oxidizer, you must meet the requirements of (i)(1) through (3) of this section.
- (1) Install the temperature monitoring device in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.
- (2) The temperature measurement system must be capable of measuring the temperature over a range that extends at least 20 percent beyond the normal expected operating range and has an accuracy of ± 1 percent of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit)

whichever is greater. The data recording system associated with affected CPMS must have a resolution that is equal to or better than one-half of the required system accuracy.

- (3) The calibration reference for the temperature measurement must be a National Institute of Standards and Technology (NIST) calibrated reference thermocouple-potentiometer system, NIST traceable certified reference thermocouple, or alternate reference, subject to approval by the Administrator.
- (4) The calibration of all thermocouples and other temperature sensors must be verified at least once every three months.

§63.7114 How do I demonstrate initial compliance with the emission limitations standard?

- (a) You must demonstrate initial compliance with each emission limit in Table 1 to this subpart that applies to you, according to Table 4 to this subpart. For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of this section exist:
- (1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or
 - (2) The control device exhausts through a monovent; or
- (3) The installation of a COMS in accordance with PS-1 of appendix B to part 60 is infeasible.
- (b) For those LMP that comply with either the HCl emissions limit or the mercury emission limit using emissions averaging, the average HCl or mercury emissions determined according to the procedures in §63.7112(n), must not exceed the applicable emission limit in Table 9 to this subpart.

- (c) For those LMP that comply with either the HCl emissions limit or the mercury emission limit using emissions averaging, you must comply with the requirements in paragraph (c)(1) through (4) of this section.
- (1) You must complete the stack testing required in paragraph §63.7112(n) of this section for all lime kilns you wish to include in the emission average before submitting the implementation plan required in paragraph (c)(2) of this section.
- (2) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan for emission averaging no later than 180 days before the date you intend to demonstrate compliance using the emission averaging option. You must include the information contained in paragraphs (c)(2)(i) through (iii) of this section in your implementation plan.
- (i) Identification of all lime kilns in the averaging group, including the lime kiln subcategory, type of stone produced, typical stone production rate, control technology installed, and types of fuel(s) that will be burned.
- (ii) The HCl or mercury emission rate for each lime kiln for each of the fuels identified in paragraph (c)(2)(i) of this section.
 - (iii) The date on which you are requesting emission averaging to commence.
- (3) The regulatory authority shall review and approve or disapprove the plan according to the following criteria:
- (i) Whether the content of the plan includes all the information specified in paragraph (c)(2) of this section, and
- (ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

- (4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:
 - (i) Averaging between emissions of differing pollutants,
- (ii) Averaging that includes lime kilns constructed or reconstructed on or after [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], or
 - (iii) Averaging between lime kilns located at different facilities.
 - (iv) Averaging between lime kilns in different subcategories.
- (b) (d) You must establish each site-specific operating limit in Table 3 to this subpart that applies to you according to the requirements in §63.7112(j) and Table 5 to this subpart.

 Alternative parameters may be monitored if approval is obtained according to the procedures in §63.8(f).
- (e) (e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7130(e).

CONTINUOUS COMPLIANCE REQUIREMENTS

§63.7120 How do I monitor and collect data to demonstrate continuous compliance?

- (a) You must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), and except for PSH operations subject to monthly VE testing, you must monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating.
- (c) Data recorded during the conditions described in paragraphs (c)(1) through (2) of this section may not be used either in data averages or calculations of emission or operating limits; or

in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

- (1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
- (2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

§63.7121 How do I demonstrate continuous compliance with the emission limitations standard?

- (a) You must demonstrate continuous compliance with each emission limitation in Tables 1 and 3 to this subpart that applies to you according to the methods specified in Tables 6 and 7 to this subpart.
- (b) You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2, 3 and 7 to this subpart that applies to you. These deviations must be reported according to the requirements in §63.7131.
 - (c) [Reserved]
- (d) Prior to the relevant compliance date for your source as specified in §63.7083(e), consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

- (e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 7 to this subpart, and as follows:
- (1) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor.
- (2) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at your back.
- (3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A-4 to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A-7 to part 60 of this chapter.
- (f) For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (f)(1) or (3) of this section exist:
- (1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or
 - (2) The control device exhausts through a monovent; or
- (3) The installation of a COMS in accordance with PS-1 of appendix B to part 60 is infeasible.
- (g) If you elect to comply with either the HCl emission limit or the mercury emission limit in table 9 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in §63.7114(c) you must comply with the requirements in paragraphs (g)(1) through (8) of this section.

- (1) For lime kilns included in the emissions averaging group that are equipped with dry sorbent injection (DSI) or ACI systems, you must comply with the requirements in §63.7113(h).
- (2) For kilns included in the emissions averaging group that use a control device or method other than DSI or ACI, you must comply with your site-specific monitoring plan of this section.in accordance with the requirements of §63.7100(d).
- (3) Calculate the monthly production-weighted average emission rate using the HCl or mercury emission rate determined during the last performance test and the actual production data for each kiln included in the emissions averaging option, as shown in equation 1 to this paragraph (g)(3).

Equation 1 to paragraph (g)(3)

$$E_g = \frac{\sum_{k=1}^{n} (E_k X P_k)}{\sum_{k=1}^{n} (P_k)}$$
 (Eq.1)

Where:

 E_g = Monthly production-weighted average emission rate for month "g" for the group of kilns, E_k = Average emission rate for kilns "k", as determined during the last compliance stack test, P_k = Total monthly production of lime produced for kilns "k", and n = Number of kilns in the averaging group.

- (4) Until 12 monthly weighted average emission rates have been accumulated, the monthly weighted average emissions rate, calculated as shown in paragraph (g)(4) of this section, must not exceed the emission limit in table 9 to this subpart in any calendar month.
- (5) After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, you must use equation 2 to this paragraph (g)(5) to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and

the previous 11 months. The 12-month rolling weighted average emissions rate for the kilns included in the group must not exceed the emission limits in table 9 to this subpart.

Equation 2 to paragraph (g)(5)

$$E_{avg} = \frac{\sum_{i=1}^{12} E_i}{12}$$
 (Eq. 2)

Where:

 $E_{avg} = 12$ -month rolling average emission rate.

 E_i = Monthly weighted average for month "i" calculated as shown in equation 1 to paragraph (g)(3)of this section.

(6) For those kilns that produce multiple types of lime in the HCl subcategory (*e.g.*, high calcium quick lime <u>and</u> dolomitic quick lime) you must establish a kiln-specific emission limit using equation 3 to paragraph (g)(6).

Equation 3 to paragraph (g)(6)

$$EL_K = (P_{OL} \times EL_{OL}) + (P_{DL} \times EL_{DL})$$
 (Eq. 3)

Where,

 EL_K = kiln-specific allowable emission limit, lb/yr

P_{QL} = Actual 12-month production of high calcium quick lime, ton lime produced/yr

EL_{OL} =Emission limit for high calcium quick lime taken from Table 9, lb HCl/ton lime produced

 P_{DL} = Actual 12-month production of dolomitic quick lime, ton lime produced/yr

EL_{DL} = Emission limit for dolomitic quick lime taken from Table 9, lb HCl/ton lime produced

(7) For those kilns that produce multiple types of lime in the HCl subcategory, after the close of each calendar month compliance with the kiln-specific emission limit developed in §63.7121(g) would be calculated using equation 4 of paragraph (g)(7).

Equation 4 to paragraph (g)(7)

$$E_K = (P_{QL} x TER_{QL}) + (P_{DL} x TER_{DL})$$
 (Eq. 4)

Where,

 E_K = Average emission rate for kiln "k", as determined during the last compliance stack test, lb HCl/ton production

P_{OL} = Actual 12-month production of high calcium quick lime, ton lime produced/yr

 E_{QL} = Average emission rate for kiln "k" while producing high calcium quick lime, as determined during the last compliance stack test

 P_{DL} = Actual 12-month production of dolomitic quick lime, ton lime produced/yr

 E_{DL} = Average emission rate for kiln "k" while producing dolomitic quick lime, as determined during the last compliance stack test, lb HCl/ton production

(8) For those kilns that produce multiple types of lime in the HCl subcategory, compliance using the emissions averaging provisions is demonstrated when E_K , as determined using equation 10, is less than E_{LK} , as determined using equation 3 to paragraph (g)(5) of this section.

NOTIFICATION, REPORTS, AND RECORDS

§63.7130 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§63.6(h)(4) and (5); 63.7(b) and (c); 63.8(e); (f)(4) and (6); and 63.9(a) through (j) that apply to you, by the dates specified.
- (b) As specified in §63.9(b)(2), if you start up your affected source before January 5, 2004, you must submit an initial notification not later than 120 calendar days after January 5, 2004.
- (c) If you start up your new or reconstructed affected source on or after January 5, 2004, you must submit an initial notification not later than 120 calendar days after you start up your affected source.

- (d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in §63.7(b)(1).
- (e) If you are required to conduct a performance test, design evaluation, opacity observation, VE observation, or other initial compliance demonstration as specified in Table 4 or 5 to this subpart, you must submit a Notification of Compliance Status according to \$63.9(h)(2)(ii). Beginning on the relevant compliance date for your source as specified in \$63.7083(e), submit all subsequent Notification of Compliance Status following the procedure specified in \$63.7131(h).
- (1) For each initial compliance demonstration required in Table 4 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.
- (2) For each compliance demonstration required in Table 6 to this subpart that includes a performance test conducted according to the requirements in Table 5 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2).

§63.7131 What reports must I submit and when?

- (a) You must submit each report listed in Table 8 to this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date specified in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (6) of this section:

- (1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7083 and ending on June 30 or December 31, whichever date is the first date following the end of the first half calendar year after the compliance date that is specified for your source in §63.7083.
- (2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first half calendar year after the compliance date that is specified for your affected source in §63.7083.
- (3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, if the permitting authority has established dates for submitting semiannual reports pursuant to §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in paragraphs (b)(1) through (4) of this section.
- (6) Beginning on the relevant compliance date for your source as specified in §63.7083(e), submit all subsequent compliance reports following the procedure specified in paragraph (h) of this section.
- (c) The compliance report must contain the information specified in paragraphs (c)(1) through (6) of this section.

- (1) Company name and address.
- (2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
- (4) Prior to the relevant compliance date for your source as specified in §63.7083(e), if you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).
- (5) If there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that apply to you, the compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring systems (CMS) were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.
- (d) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information specified in paragraphs (c)(1) through (4) and (d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in §63.10(d) prior to the relevant compliance date for your source as specified in §63.7083(e) and the requirements in §63.10(d)(1)-(4) beginning on the relevant compliance date for your source as specified in §63.7083(e).
 - (1) The total operating time of each emission unit during the reporting period.

- (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), and the corrective action taken.
- (3) An estimate of the quantity of each regulated pollutant emitted over a particulate matter non-opacity or VE emission limit, and a description of the method used to estimate the emissions.
- (e) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) occurring at an affected source where you are using a CMS to comply with the emission limitation in this subpart, you must include the information specified in paragraphs (c)(1) through (4) and (e)(1) through (11) of this section, except that beginning on the relevant compliance date for your source as specified in §63.7083(e), the semiannual compliance report must also include the information included in paragraph (e)(12) of this section. This includes periods of startup, shutdown, and malfunction.
 - (1) The date and time that each malfunction started and stopped.
- (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
- (3) The date, time and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
- (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (5) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total affected source operating time during that reporting period.

- (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- (7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total emission unit operating time during that reporting period.
 - (8) A brief description of the process units.
 - (9) A brief description of the CMS.
 - (10) The date of the latest CMS certification or audit.
- (11) A description of any changes in CMS, processes, or controls since the last reporting period.
- (12) An estimate of the quantity of each regulated pollutant emitted over a non-opacity or VE particulate matter emission limit, and a description of the method used to estimate the emissions.
- (f) Each facility that has obtained a title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter. If you submit a compliance report specified in Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report.

However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

(g) If you are required to submit reports following the procedure specified in this paragraph, you must submit reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). You must use the appropriate electronic report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-andemissions-data-reporting-interface-cedri) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as Confidential Business Information (CBI). Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report, you must submit a complete file, including information claimed to be CBI, to the EPA following the procedures in paragraph (g). Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must

submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph.

- (1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Lime Manufacturing Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.
- (2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Lime Manufacturing Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

If you claim some of the information required to be submitted via CEDRI is confidential business information (CBI), submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

- (h) *Performance Tests*. Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (h)(1) through (3) of this section.
- (1) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test. Submit the results of the performance test to the EPA via CEDRI, which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.
- (2) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.
- (3) Confidential business information (CBI). (i) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraph (a)(1) or (2) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA.
- (ii) The file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.

- (iii) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.
- (iv) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Group Leader, Measurement Policy Group. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.
- (v) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Group Leader, Measurement Policy Group. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.
- (vi) All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(vii) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in paragraphs (h)(1) and (2) of this section.

If you claim some of the information submitted under paragraph (i) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (i) of this section.

- (i) If you are required to electronically submit a report or notification through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (i)(1) through (7) of this section.
- (1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
- (2) The outage must have occured within the period of time beginning five business days prior to the date that the submission is due.
 - (3) The outage may be planned or unplanned.
- (4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

- (5) You must provide to the Administrator a written description identifying:
- (i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
 - (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
- (6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
- (7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.
- (j) Claims of force majeure. If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majuere, you must meet the requirements outlined in paragraphs (j)(1) through (5) of this section.
- (1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes,

or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

- (2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
 - (3) You must provide to the Administrator:
 - (i) A written description of the force majeure event;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
 - (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
- (4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
- (5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

§63.7132 What records must I keep?

- (a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
- (2) Prior to the relevant compliance date for your source as specified in §63.7083(e), the records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. On and after

the relevant compliance date for your source as specified in §63.7083(e), the records in paragraphs (a)(2)(i) and (ii) of this section.

- (i) You must keep records for each startup period of the date, the time startup began, the time began producing on-specification lime product, and the time discharge from the kiln began for any affected source that is subject to a standard during startup that differs from the standard applicable at other times.
- (ii) You must keep records of the date, time, cause and duration of each malfunction (as defined in 40 CFR 63.2) that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time, cause, and duration of the monitoring malfunction; the record must list the affected source or equipment; if there was a failure to meet a particulate matter emissions limit, an estimate of the volume of each regulated pollutant emitted over the limit, and a description of the method used to estimate the emissions.
- (3) Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii).
 - (b) You must keep the records in §63.6(h)(6) for VE observations.
- (c) You must keep the records required by Tables 6 and 7 to this subpart to show continuous compliance with each emission limitation that applies to you.
- (d) You must keep the records which document the basis for the initial applicability determination as required under §63.7081.

§63.7133 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.
- (d) Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

OTHER REQUIREMENTS AND INFORMATION

§63.7140 What parts of the General Provisions apply to me?

Table 9 to this subpart shows which parts of the General Provisions in §§63.1 through 63.16 apply to you. When there is overlap between subpart A and subpart AAAAA, as indicated in the "Explanations" column in Table 9, subpart AAAAA takes precedence.

§63.7141 Who implements and enforces this subpart?

- (a) This subpart can be implemented and enforced by us, the U.S. EPA, or by a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this

section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

- (c) The authorities that will not be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (7) of this section.
 - (1) Approval of alternatives to the non-opacity emission limitations in §63.7090(a).
 - (2) Approval of alternative opacity emission limitations in §63.7090(a) and (c).
 - (3) Approval of alternatives to the operating limits in §63.7090(b).
- (4) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
 - (5) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (6) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
- (7) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

§63.7142 What are the requirements for claiming area source status?

- (a) If you wish to claim that your LMP is an area source, you must measure the emissions of hydrogen chloride from all lime kilns, except as provided in paragraph (c) of this section, at your plant using either:
 - (1) EPA Method 320 of appendix A to this part, or
- (2) As an alternative to Method 320 of Appendix A, ASTM D6348-03 (Reapproved 2010) including Annexes A1 through A8 (incorporated by reference—see §63.14). ASTM D6348-12e1 (incorporated by reference—see §63.14) is an acceptable alternative to EPA Method 320 of

appendix A, provided that the provisions of paragraphs (a)(2)(i) and (ii) of this section are followed:

- (i) The test plan preparation and implementation in the Annexes to ASTM D6348–03 (Reapproved 2010), Sections A1 through A8 are mandatory.
- (ii) In ASTM D6348–03 (Reapproved 2010) Annex A5 (Analyte Spiking Technique), the percent recovery (%R) must be determined for each target analyte (Equation A5.5). In order for the test data to be acceptable for a compound, %R must be greater than or equal to 70 percent and less than or equal to 130 percent. If the %R value does not meet this criterion for a target compound, the test data are not acceptable for that compound and the test must be repeated for that analyte (i.e., the sampling and/or analytical procedure should be adjusted before a retest). The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound by using the following equation: Reported Results = ((Measured Concentration in the Stack))/(%R) x 100; or
 - (3) EPA Method 321 of appendix A to this part, or
- (4) As an alternative to EPA Method 321, ASTM Method D6735-01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources Impinger Method (incorporated by reference see §63.14), provided that the provisions in paragraphs (a)(3)(i) through (vi) of this section are followed.
- (i) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735-01 (Reapproved 2009).
- (ii) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100) \ Absolute \ Value \left[\frac{C1_a - C2_a}{C1_a + C2_a} \right] \qquad (Eq. \ 1)$$

Where:

RSD_a = The test run relative standard deviation of sample pair a, percent.

C1_a and C2_a = The HCl concentrations, milligram/dry standard cubic meter (mg/dscm), from the paired samples.

(iii) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^{p} RSD_{a}}{p} \qquad (Eq. 2)$$

Where:

RSD_{TA} = The test average relative standard deviation, percent.

RSD_a = The test run relative standard deviation for sample pair a.

p =The number of test runs, ≥ 3 .

- (iv) If RSD^{TA} is greater than 20 percent, the data are invalid and the test must be repeated.
- (v) The post test analyte spike procedure of section 11.2.7 of ASTM Method D6735-01 (Reapproved 2009) is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735-01 (Reapproved 2009).
- (vi) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.
- (b) If you conduct tests to determine the rates of emission of specific organic HAP from lime kilns at LMP for use in applicability determinations under §63.7081, you may use either:

- (1) Method 320 of appendix A to this part, or
- (2) As an alternative to Method 320 of Appendix A, ASTM D6348-03 (Reapproved 2010) including Annexes A1 through A8 (incorporated by reference—see §63.14). ASTM D6348–12e1 (incorporated by reference—see §63.14) is an acceptable alternative to EPA Method 320 of appendix A, provided that the provisions of paragraphs (b)(2)(i) and (ii) of this section are followed:
- (i) The test plan preparation and implementation in the Annexes to ASTM D6348–03 (Reapproved 2010), Sections A1 through A8 are mandatory.
- (ii) In ASTM D6348–03 (Reapproved 2010) Annex A5 (Analyte Spiking Technique), the percent recovery (%R) must be determined for each target analyte (Equation A5.5). In order for the test data to be acceptable for a compound, %R must be greater than or equal to 70 percent and less than or equal to 130 percent. If the %R value does not meet this criterion for a target compound, the test data are not acceptable for that compound and the test must be repeated for that analyte (i.e., the sampling and/or analytical procedure should be adjusted before a retest). The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound by using the following equation: Reported Results = ((Measured Concentration in the Stack))/(%R) x 100; or
 - (3) Method 18 of appendix A-6 to part 60 of this chapter; or
- (4) As an alternative to Method 18, ASTM D6420-99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS) (incorporated by reference see §63.14), provided that the provisions of paragraphs (b)(3)(i) through (iv) of this section are followed:

- (i) The target compound(s) are those listed in section 1.1 of ASTM D6420-99 (Reapproved 2010) as measurable;
- (ii) This ASTM should not be used for methane and ethane because their atomic mass is less than 35 and
 - (iii) ASTM D6420-99 (Reapproved 2010) should never be specified as a total VOC method.
- (c) It is left to the discretion of the permitting authority whether or not idled kilns must be tested for (HCl) to claim area source status. If the facility has kilns that use common feed materials and fuel, are essentially identical in design, and use essentially identical emission controls, the permitting authority may also determine if one kiln can be tested, and the HCl emissions for the other essentially identical kilns be estimated from that test.

§63.7143 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:

Bag leak detector system (BLDS) is a type of PM detector used on FF to identify an increase in PM emissions resulting from a broken filter bag or other malfunction and sound an alarm.

Belt conveyor means a conveying device that transports processed stone from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a processed stone conveying device consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport PM to a control device.

Control device means the air pollution control equipment used to reduce PM emissions released to the atmosphere from one or more process operations at an LMP.

Conveying system means a device for transporting processed stone from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to feeders, belt conveyors, bucket elevators and pneumatic systems.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit);
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Prior to the relevant compliance date for your source as specified in §63.7083(e), fails to meet any emission limitation (including any operating limit) in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

Dry sorbent injection (DSI) means an add-on air pollution control system in which sorbent (e.g., conventional activated carbon, brominated activated carbon, Trona, hydrated lime, sodium carbonate, etc.) is injected into the flue gas steam upstream of a PM control device to react with and neutralize acid gases (such as SO₂ and HCl) or mercury in the exhaust stream forming a dry powder material that may be removed in a primary or secondary PM control device.

Emission limitation means any emission limit, opacity limit, operating limit, or VE limit.

Emission unit means a lime kiln, lime cooler, storage bin, conveying system transfer point, bulk loading or unloading operation, bucket elevator or belt conveyor at an LMP.

Fugitive emission means PM that is not collected by a capture system.

Hydrator means the device used to produce hydrated lime or calcium hydroxide via the chemical reaction of the lime product with water.

Lime cooler means the device external to the lime kiln (or part of the lime kiln itself) used to reduce the temperature of the lime produced by the kiln.

Lime kiln means the device, including any associated preheater, used to produce a lime product from stone feed by calcination. Kiln types include, but are not limited to, rotary kiln, vertical kiln, rotary hearth kiln, double-shaft vertical kiln, and fluidized bed kiln.

Lime manufacturing plant (LMP) means any plant which uses a lime kiln to produce lime product from limestone or other calcareous material by calcination.

Lime produced refers to the production of limestone from the lime kiln consisting of high-calcium quick lime, dolomitic quick lime and/or dead burned dolomitic lime.

Lime product means the product of the lime kiln calcination process including, calcitic lime, dolomitic lime, and dead burned dolomite.

Limestone means the material comprised primarily of calcium carbonate (referred to sometimes as calcitic or high calcium limestone), magnesium carbonate, and/or the double carbonate of both calcium and magnesium (referred to sometimes as dolomitic limestone or dolomite).

Monovent means an exhaust configuration of a building or emission control device (*e.g.*, positive pressure FF) that extends the length of the structure and has a width very small in relation to its length (*i.e.*, length-to-width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

On-specification Lime Product means lime product that has been sufficiently calcined to meet end use requirements.

Particulate matter (PM) detector means a system that is continuously capable of monitoring PM loading in the exhaust of FF or ESP in order to detect bag leaks, upset conditions, or control device malfunctions and sounds an alarm at a preset level. A PM detector system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effects to continuously monitor relative particulate loadings. A BLDS is a type of PM detector.

Positive pressure FF or ESP means a FF or ESP with the fan(s) on the upstream side of the control device.

Process stone handling operations means the equipment and transfer points between the equipment used to transport *processed stone*, and includes, storage bins, conveying system transfer points, bulk loading or unloading systems, screening operations, bucket elevators, and belt conveyors.

Processed stone means limestone or other calcareous material that has been processed to a size suitable for feeding into a lime kiln.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

Shutdown means the cessation of kiln operation. Shutdown begins when feed to the kiln is reduced below planned production quantities and ends when stone feed is halted and fuel combustion from the main burner ceases.

Stack emissions means the PM that is released to the atmosphere from a capture system or control device.

Startup means the beginning of kiln operation. Startup begins when a shutdown kiln begins firing fuel in the main burner. Startup ends when the lime kiln first generates on-specification lime product or 12 hours following first discharge from the kiln, whichever is earlier.

Storage bin means a manmade enclosure for storage (including surge bins) of processed stone prior to the lime kiln.

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in EPA/100/R-10/005, "Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds", December 2010 (incorporated by reference—see §63.14). The Toxic Equivalency Factors (TEFs) used to determine the dioxin and furan TEQs are listed in Table 10 of this subpart.

Total Organic HAP means, for the purposes of this subpart, the sum of the concentrations of compounds of formaldehyde, acetaldehyde, toluene, benzene, m-xylene, p-xylene, o-xylene, styrene, ethyl benzene, and naphthalene as measured by EPA Test Method 320 or Method 18 of appendix A to this part or ASTM D6348–03[1] or a combination of these methods, as appropriate. If measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating the total organic HAP value. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 18 fractions) may include a combination of method detection level data and analytical data reported

above the method detection level. The owner or operator of an affected source may request the use of other test methods to make this determination under paragraphs 63.7(e)(2)(ii) and (f) of this part.

Transfer point means a point in a conveying operation where the material is transferred to or from a belt conveyor.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying PM emissions from one or more emission units.

Table 1 to Subpart AAAAA of Part 63—Emission Limits

As required in §63.7090(a), you must meet each emission limit in the following table that applies to you, except for kilns and coolers during startup and shutdown (See Table 2 for emission limits for kilns and coolers during startup and shutdown).

For	You must meet the following emission limit
1. All eExisting lime kilns and their associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004	PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf).
scrubber, where the scrubber itself was installed and operating prior to January 5, 2004	PM emissions must not exceed 0.60 lb/tsf. If, at any time after January 5, 2004, the kiln changes to a dry control system, then the PM emission limit in item 1 of this Table 1 applies, and the kiln is hereafter ineligible for the PM emission limit in item 2 of this Table 1 regardless of the method of PM control.
3. All nNew lime kilns and their associated lime coolers	PM emissions must not exceed 0.10 lb/tsf.

4. All existing and new lime kilns and their associated coolers at your LMP, and you choose to average PM emissions, except that any kiln that is allowed to meet the 0.60 lb/tsf PM emission limit is ineligible for averaging	Weighted average PM emissions calculated according to Eq. 2 in §63.7112 must not exceed 0.12 lb/tsf (if you are averaging only existing kilns) or 0.10 lb/tsf (if you are averaging only new kilns). If you are averaging existing and new kilns, your weighted average PM emissions must not exceed the weighted average emission limit calculated according to Eq. 3 in §63.7112, except that no new kiln and its associated cooler considered alone may exceed an average PM emissions limit of 0.10 lb/tsf.
5. New straight rotary lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 1.7 lb/ton of lime produced.
6. Existing straight rotary lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 2.3 lb/ton of lime produced.
7. New straight rotary lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.015 lb/ton of lime produced.
8. Existing straight rotary lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.52 lb/ton of lime produced.
9. All preheater rotary lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 0.39 lb/ton of lime produced.
10. All preheater rotary lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.096 lb/ton of lime produced.
11. All vertical lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 0.39 lb/ton of lime produced.
12. All vertical lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.021 lb/ton of lime produced.

13. All new lime kilns and their associated coolers	Mercury emissions must not exceed 27 lb/MMton of lime produced.
14. All existing lime kilns and their associated coolers	Mercury emissions must not exceed 34 lb/MMton of lime produced.
15. All lime kilns and their associated coolers	Total Organic HAP emissions must not exceed 2.6 ppmvd @ 7% O ₂ .
16. All lime kilns and their associated coolers	D/F emissions must not exceed $0.037 \text{ ng/dscm (TEQ)}^1$ @ 7% O_2 .
17. Stack emissions from all PSH operations at a new or existing affected source	PM emissions must not exceed 0.05 grams per dry standard cubic meter (g/dscm).
18. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity.
19. Fugitive emissions from all PSH operations at a new or existing affected source, except as provided by item 8 of this Table 1	Emissions must not exceed 10 percent opacity.
20. All PSH operations at a new or existing affected source enclosed in a building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations in items 5 through 7 of this Table 1, or the building must comply with the following: There must be no VE from the building, except from a vent; and vent emissions must not exceed the stack emissions limitations in items 5 and 6 of this Table 1.
21. Each FF that controls emissions from only an individual, enclosed storage bin	Emissions must not exceed 7 percent opacity.
22. Each set of multiple storage bins at a new or existing affected source, with combined stack emissions	You must comply with the emission limits in items 5 and 6 of this Table 1.

¹ Determined using the toxic equivalency factors listed in Table 2 of Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2, 3, 7, 8-

Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds. When calculating TEQ, zero may be used for congeners that are below the estimated detection level (EDL).

Table 2 to Subpart AAAAA of Part 63—Startup and Shutdown Emission Limits for Kilns and Coolers

As required in §63.7090(b), on and after the relevant compliance date for your source as specified in §63.7083(e), you must meet each emission limit in the following table that applies to you

For	You must meet the following emission limit	You have demonstrated compliance, if after following the requirements in §63.7112
1. All new and existing lime kilns and their associated coolers equipped with an FF or an ESP during each startup	Emissions must not exceed 15 percent opacity (based on startup period block average)	i. Installed, maintained, calibrated and operated a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2);
		ii. Collected the COMS data at a frequency of at least once every 15 seconds, determining block averages for each startup period and demonstrating for each startup block period the average opacity does not exceed 15 percent.
2. All existing lime kilns and their associated coolers that have a wet scrubber during each startup	See item 2.b of Table 3 of subpart AAAA for emission limit.	See item 1 of Table 6 of subpart AAAAA for requirements for demonstrating compliance.
3. All new and existing lime kilns and their associated coolers equipped with an FF or an ESP during shutdown	Emissions must not exceed 15 percent opacity (based on 6-minute average opacity for any 6-minute block period does not exceed 15 percent).	i. Installed, maintained, calibrated and operated a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2);
		ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.
4. All existing lime kilns and their associated coolers	See item 2.b of Table 3 of subpart AAAAA for emission limit	See item 1 of Table 6 of subpart AAAAA for requirements for demonstrating compliance

that have a wet	
scrubber during	
shutdown	

Table 3 to Subpart AAAAA of Part 63—Operating Limits

As required in §63.7090(b), you must meet each operating limit in the following table that applies to you, except for kilns and coolers during startup and shutdown (See Table 2 for operating limits during startup and shutdown)

For	You must
1. Each lime kiln and each lime cooler (if there is a separate exhaust to the atmosphere from the associated lime cooler) equipped with an FF	Maintain and operate the FF such that the BLDS or PM detector alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period; and comply with the requirements in §63.7113(d) through (f) and Table 6 to this subpart. In lieu of a BLDS or PM detector maintain the FF such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent; and comply with the requirements in §63.7113(f) and (g) and Table 6 to this subpart.
2. Each lime kiln equipped with a wet scrubber	a. Maintain the 3-hour block exhaust gas stream pressure drop across the wet scrubber greater than or equal to the greater of the pressure drop operating limit established during the most recent performance test for PM and HCl; and
	b. Maintain the 3-hour block scrubbing liquid flow rate greater than or equal to the greater of the flow rate operating limit established during the most recent performance test for PM and HCl.
3. Each lime kiln equipped with an electrostatic precipitator	Install a PM detector and maintain and operate the ESP such that the PM detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period, and comply with \$63.7113(e); or, maintain the ESP such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in \$63.7113(g); and comply with the requirements in \$63.7113(f) and Table 6 to this subpart.
1	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the greater of the pressure drop operating limit established during the performance test for PM and HCl; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the greater of the flow rate operating limit established during the performance test for PM and HCl.

5. All affected sources	Prepare a written OM&M plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 6 to this subpart.
with an add-on air pollution control device	a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to an FF; and b. Operate each capture/collection system according to the procedures and requirements in the OM&M plan.
7. Each lime kiln equipped with dry sorbent injection	Maintain the 3-hour block dry sorbent flow rate greater than or equal to the flow rate operating limit established during the most recent performance test for HCl.
8. Each lime kiln equipped with a thermal oxidizer	Maintain the 3-hour block average combustion chamber temperature greater or equal to the greater of the combustion chamber operating limit established in the most recent performance test for total organic HAP and dioxin/furans.
1 11	Maintain the 3-hour block activated carbon injection flow rate greater than or equal to the greater of the flow rate operating limit established during the most recent performance test for total organic HAP, D/F, and mercury.

Table 4 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits

As required in §63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.

For	For the following emission limit	You have demonstrated initial compliance, if after following the requirements in §63.7112
1. All new or existing lime kilns and their associated lime coolers (kilns/coolers)	kilns/coolers with wet scrubbers, 0.10 lb/tsf for all new kilns/coolers Emission limits as identified in Table 1, or a weighted average calculated according to Eq. 3 in §63.7112	The kiln outlet PM, HCl, mercury, and Total Organic HAP, and dioxins and furans emissions (and if applicable, summed with the separate cooler PM emissions), based on the PM emissions measured using Method 5 or 5D in appendix A to part 60 of this chapter, HCl measured using Method 320 or 321 in appendix A of Part 63 of this chapter, mercury measured using Method 29 or 30B 5D in appendix A to part 60 of this

		chapter, and the stone feed rate measurement over the period of initial performance test and Total Organic HAP measured using Method 18 5D in appendix A to part 60 of this chapter and/or Method 320 in appendix A of Part 63 of this chapter and dioxins and furans measured using Method 23 in appendix A to part 60 of this chapter, do not exceed the emission limit; if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions with a BLDS or PM detector, you have installed and are operating the monitoring device according to the requirements in §63.7113(d) or (e), respectively; and if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions using a COMS, you have installed and are operating the COMS according to the requirements in §63.7113(g). If the kiln is equipped with a dry sorbent injection system, you have a record of the dry sorbent and/or carbon injection flow rate operating parameter over the 3-hour performance test during which emissions did not exceed the emissions limitation. If the kiln is equipped with a thermal oxidizer, you have a record of the combustion chamber operating temperature operating parameter over the 3-hour
		operating parameter over the 3-hour performance test during which emissions did not exceed the emissions limitation.
2. Stack emissions from all PHS operations at a new or existing affected source	PM emissions must not exceed 0.05 g/dscm	The outlet PM emissions, based on Method 5 or Method 17 in appendix A to part 60 of this chapter, over the period of the initial performance test do not exceed 0.05 g/dscm; and if the emission unit is controlled

		with a wet scrubber, you have a record of the scrubber's pressure drop and liquid flow rate operating parameters over the 3-hour performance test during which emissions did not exceed the emissions limitation.
3. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	percent opacity	Each of the thirty 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit. At least thirty 6-minute averages must be obtained.
4. Fugitive emissions from all PSH operations at a new or existing affected source	Emissions must not exceed 10 percent opacity	Each of the 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 10 percent opacity limit.
a new or existing affected source, enclosed in building	building must comply with the following: There must be no VE from the building, except from a vent, and vent emissions must not exceed the emission limitations in items 2 and 3 of this Table 4	initial compliance according to the applicable requirements for items 2 through 4 of this Table 4; or if you are complying with the building emission limitations, there are no VE from the building according to item 18 of Table 5 to this subpart
6. Each FF that controls emissions from only an individual storage bin	percent opacity	Each of the ten 6-minute averages during the 1-hour initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit.

7. Each set of multiple storage bins with combined stack emissions	You must comply with emission limitations in items 2 and 3 of this Table 4	You demonstrate initial compliance according to the requirements in items 2 and 3 of this Table 4.
8. All new or existing lime kilns and their associated lime coolers (kilns/coolers)	You must meet the emission limitations for HCl, mercury, total organic HAP, and dioxins and furans in items 5 through 16 of Table 1.	The kiln outlet HCl, mercury, total organic HAP, and D/F emissions (and if applicable, summed with the separate cooler emissions), based on the emissions measured according to Table 5 over the period of the initial performance test do not exceed the applicable limits in items 5 through 16 of Table 1. If the emission unit is controlled with a wet scrubber, during the HCl performance test you have a record of the scrubber's pressure drop and liquid flow rate operating parameters over the performance test during which emissions did not exceed the HCl emissions limitation. If the emission unit is controlled with a dry sorbent injection, during the HCl performance test you have a record of the dry sorbent flow rate operating parameter over the HCl performance test during which emissions did not exceed the HCl emissions limitation. If the emission unit is controlled with a thermal oxidizer, during the total organic HAP and D/F performance test during parameter over the total organic HAP and D/F performance test during which emissions did not exceed the total organic HAP and D/F performance test during which emissions did not exceed the total organic HAP and D/F emissions limitation(s). If the emission unit is controlled with a activated carbon injection, during the total organic HAP, D/F, and mercury performance test(s) you have a record of the temperature operating

parameter over the total organic HAP, D/F, and mercury performance test(s) during which emissions did not exceed the total organic HAP, D/F, and mercury emissions limitation(s).
emissions miniation(s).

 Table 5 to Subpart AAAAA of Part 63—Requirements for Performance Tests

As required in §63.7112, you must conduct each performance test in the following table that applies to you.

For	You must	Using	According to the following requirements
and each associated lime cooler, if there is a separate	of the sampling	Method 1 or 1A of appendix A to part 60 of this chapter; and \$63.6(d)(1)(i)	Sampling sites must be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
	Determine velocity and volumetric flow rate	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter	Not applicable.
and each associated	Conduct gas molecular weight analysis	Method 3, 3A, or 3B in appendix A to part 60 of this chapter	You may use manual procedures (but not instrumental procedures) of ASME PTC 19.10-1981 - Part 10 (available for purchase from Three Park Avenue, New York, NY 10016-5990) as an alternative to using the manual procedures (but not instrumental procedures) inMethod 3B.

	1	T	, , , , , , , , , , , , , , , , , , , ,
4. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	content of the stack	Method 4 in appendix A to part 60 of this chapter	Not applicable.
5. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a negative pressure PM control device	Measure PM emissions	Method 5 in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e) before the relevant compliance date for your source as specified in §63.7083(e) and §63.7112(b) on and after the relevant compliance date for your source as specified in §63.7083(e); the minimum sampling volume must be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the cooler exhaust concurrently with the kiln exhaust test.
6. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a positive pressure FF or ESP	Measure PM emissions	Method 5D in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e) before the relevant compliance date for your source as specified in §63.7083(e) and §63.7112(b) on and after the relevant compliance date for your source as specified in §63.7083(e); If there is a separate lime cooler exhaust to the atmosphere, you must

			conduct the Method 5 or 5D test of the separate cooler exhaust concurrently with the kiln exhaust test. Refer to item 5 of this table for sampling time and volume requirements.
7. Each lime kiln	Determine the mass rate of stone feed to the kiln during the kiln PM emissions performance test		Calibrate and maintain the device according to manufacturer's instructions; the measuring device used must be accurate to within ±5 percent of the mass rate of stone feed over its operating range.
8. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average gas stream pressure drop across the wet scrubber during the PM and HCl performance test(s)	measurement device during the kiln PM performance test	The continuous pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
9. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average liquid flow rate to the scrubber during the PM and HCl performance test(s)	rate measurement device during the kiln PM performance test	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
10. Each lime kiln equipped with a FF or ESP that is monitored with a PM detector	Have installed and have operating the BLDS or PM detector prior to the PM performance test	1 0	According to the requirements in §63.7113(d) or (e), respectively.
11. Each lime kiln equipped with a FF or ESP that is	Have installed and have operating the		According to the requirements in §63.7113(g).

monitored with a COMS	COMS prior to the performance test	as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2)	
12. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to a PM emission limit		of this chapter	The sample volume must be at least 1.70 dscm (60 dscf); for Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters; and if the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter (Method 17 may be used only with exhaust gas temperatures of not more than 250 °F).
13. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to an opacity limit	Conduct opacity observations	to part 60 of this chapter	The test duration must be for at least 3 hours and you must obtain at least thirty, 6-minute averages.
14. Each stack emissions source from a PSH	pressure drop across the wet	measurement device during the PSH operation stack PM-performance	The pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance

limit, which uses a wet scrubber	PM and HCl performance test(s)		test and determine the operating limit according to §63.7112(j).
	Establish the operating limit for the average liquid flow rate to the scrubber during the PM and HCl performance test(s)	rate measurement device during the PSH operation stack PM-performance	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
16. Each FF that controls emissions from only an individual, enclosed, new or existing storage bin	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 1 hour and you must obtain ten 6-minute averages.
17. Fugitive emissions from any PSH operation subject to an opacity limit	Conduct opacity observations		The test duration must be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10 percent during the first 1-hour period.
18. Each building enclosing any PSH operation, that is subject to a VE limit	Conduct VE check	The specifications in §63.7112(k)	The performance test must be conducted while all affected PSH operations within the building are operating; the performance test for each affected building must be at least 75 minutes, with each side of the building and roof being observed for at least 15 minutes.
19. Each lime kiln	Measure hydrogen chloride	Method 320 or 321 of appendix A of this part	The test duration must be at least one hour. HCl must be used for the analyte spiking.

		or ASTM 6348-12e1 (Note 1)	For a positive pressure FF or ESP, determine the number of sampling points per the stratification check procedures of section 8.1.2 of Method 7E using the sample points determined using the procedures of Section 8 of EPA Method 5D.
20. Each lime kiln	Measure mercury	Method 29 or 30B Appendix A to part 60 of this chapter or ASTM D6784-16	For Method 29 and ASTM D6784-16 the test duration must be at least two hours and the sample volume must be at least 1.70 dscm (60 dscf). For Method 30B, the test duration must be at least one hour and the sample volume at least 100 liters. For a positive pressure FF or ESP, use the procedures of Section 8 of EPA Method 5D for sampling points.
21. Each lime kiln	Measure total organic HAP ²		The test duration must be at least 1 hour. For EPA Method 320 and ASTM D6348-12e1, for a positive pressure FF or ESP, determine the number of sampling points per the stratification check procedures of section 8.1.2 of Method 7E using the sample points determined using the procedures of Section 8 of EPA Method 5D.
22. Each lime kiln	Measure dioxins/furans	Method 23 in Appendix A to part 60 of this chapter	The test duration must be at least 3 hours and the must be at least 3 dscm (106 dscf). For a positive pressure FF or ESP, use the procedures of Section 8 of EPA Method 5D for sampling points. When calculating TEQ, zero may

			be used for congeners that are below the EDL.
23. Each lime kiln equipped with dry sorbent injection	Establish the operating limit for the dry sorbent flow rate during the HCl performance test	Data for the dry sorbent flow rate device during the HCl performance test	The flow monitor must meet the criteria in §63.7113(h); you must collect the dry sorbent flow rate data during the period of the HCl performance test and determine the operating limit according to §63.7112(j).
24. Each lime kiln equipped with a thermal oxidizer	Establish the operating limit for the combustion chamber temperature during the total organic HAP and D/F performance test(s)	Data for the temperature device during the total organic HAP and dioxin/furan performance test(s)	The temperature device must meet the criteria in §63.7113(i); you must collect the temperature data during the period of the total organic HAP and D/F performance test(s) and determine the operating limit according to §63.7112(j).
25. Each lime kiln equipped with activated carbon injection	Establish the operating limit for the combustion chamber temperature during the total organic HAP, D/F, and mercury performance test(s)	Data for the activated carbon flow rate device during the total organic HAP, dioxin/furan, and mercury performance test(s)	The flow monitor must meet the criteria in §63.7113(h); you must collect the activated carbon flow rate data during the period of the total organic HAP, D/F, and mercury performance test(s)and determine the operating limit according to §63.7112(j).

When using ASTM D6348-12e1 (1) the test plan preparation and implementation in the Annexes to ASTM D6348-12e1, sections A1 through A8 are mandatory, (2) In ASTM D6348-12e1 Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5). In order for the test data to be acceptable for a compound, %R must be 70 % ≥ R ≤ 130%. If the %R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte (i.e., the sampling and/or analytical procedure should be adjusted before a retest). The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound according to: Reported Results = ((Measured Concentration in Stack))/(%R) x 100.

² Total Organic HAP is the sum of the concentrations of compounds of formaldehyde, acetaldehyde, toluene, benzene, m-xylene, p-xylene, o-xylene, styrene, ethyl benzene, and naphthalene.

Table 6 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits

As required in §63.7121, you must demonstrate continuous compliance with each operating limit listed in Table 3 to subpart AAAAA that applies to you, according to the following table:

For	For the following operating limit	You must demonstrate continuous compliance by
controlled by a wet scrubber	exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in \$63.7113 and reducing the data according to \$63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
or lime cooler equipped with a FF and using a BLDS, and each lime kiln equipped with an	ESP such that the bag leak or PM detector alarm, is not activated and alarm condition does not exist for more than 5 percent of the total operating time in each 6-month period	(i) Operating the FF or ESP so that the alarm on the bag leak or PM detection system is not activated and an alarm condition does not exist for more than 5 percent of the total operating time in each 6-month reporting period; and continuously recording the output from the BLD or PM detection system; and

		(ii) Each time the alarm sounds and the owner or operator initiates corrective actions within 1 hour of the alarm, 1 hour of alarm time will be counted (if the owner or operator takes longer than 1 hour to initiate corrective actions, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions); if inspection of the FF or ESP system demonstrates that no corrective actions are necessary, no alarm time will be counted.
operation subject to an opacity limit,	exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM-performance test; and	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
kiln or lime cooler equipped with a FF	a. Maintain and operate the FF or ESP such that the average opacity for any 6-minute block period does not exceed 15 percent	i. Installing, maintaining, calibrating and operating a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2); and
		ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the

		average opacity does not exceed 15 percent.
7. Each lime kiln equipped with dry sorbent injection	Maintain the 3-hour block dry sorbent and/or activated carbon flow rate greater than or equal to the injection flow rate operating limit established during the most recent performance test.	Collecting the dry sorbent and/or activated carbon injection operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average injection flow rate greater than or equal to the injection flow rate operating limit established during the performance test
8. Each lime kiln equipped with a thermal oxidizer	combustion chamber temperature	Collecting the thermal oxidizer operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average combustion chamber temperature greater than or equal to the combustion chamber operating limit established during the performance test

Table 7 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits

As required in §63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table:

For	For the following emission limitation	You must demonstrate ongoing compliance
subject to an opacity limitation as required in Table 1 to this subpart, or any vents from buildings	opacity, depending on the PSH	(i) Conducting a monthly 1-minute VE check of each emission unit in accordance with \$63.7121(e); the check must be conducted while the affected source is in operation;
		(ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually for that emission unit; if VE are observed during any semiannual check, you must resume VE checking of that emission unit on a monthly basis and maintain that

	schedule until no VE are observed in 6 consecutive monthly checks;
	(iii) If no VE are observed during the semiannual check for any emission unit, you may decrease the frequency of VE checking from semiannually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and
	(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter; you must begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.
2. Any building subject to a. No VE a VE limit, according to item 8 of Table 1 to this subpart	(i) Conducting a monthly VE check of the building, in accordance with the specifications in \$63.7112(k); the check must be conducted while all the enclosed PSH operations are operating;
	(ii) The check for each affected building must be at least 5 minutes, with each side of the building and roof being observed for at least 1 minute;
	(iii) If no VE are observed in 6 consecutive monthly checks of the building, you may decrease the frequency of checking from monthly to semi-annually for that affected source; if VE are observed during any semi-annual check, you must resume checking on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and
	(iv) If no VE are observed during the semi-annual check, you may decrease the frequency of checking from semi-annually to annually for that affected source; and if VE are observed during any annual check, you must resume checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks (the source is in compliance if no VE are observed during any of these checks).

Table 8 to Subpart AAAAA of Part 63—Requirements for ReportsAs required in §63.7131, you must submit each report in this table that applies to you.

715 required in \$05.7151,	As required in §63./131, you must submit each report in this table that applies to you.			
You must submit a	The report must contain	You must submit the report		
1. Compliance report	a. If there are no deviations from any emission limitations (emission limit,	Semiannually according to the requirements in §63.7131(b).		
		Semiannually according to the requirements in §63.7131(b).		
	emission limitation (emission limit,	Semiannually according to the requirements in §63.7131(b).		
	the CMS, including any operating	Semiannually according to the requirements in §63.7131(b).		
	1 2	Semiannually according to the requirements in §63.7131(b).		

	shutdown or malfunction during the reporting period and you failed to meet an applicable standard, the compliance report must include the information in §63.7131(c)(3).	
2. Before the relevant compliance date for your source as specified in §63.7083(e), an immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the SSMP.
3. Before the relevant compliance date for your source as specified in §63.7083(e), an immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	The information in §63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. See §63.10(d)(5)(ii).
(4) Performance Test Report	The information required in §63.7(g) and §63.7112(h)	According to the requirements of §63.7131

Table 9 to Subpart AAAAA of Part 63 – Emissions Averaging Emission Limits

As required in §63.7090(d), if you are using emissions averaging for either HCl emission limits or mercury emission limits you must meet each emission limit in the following table that applies to you.

For	You must meet the following emission limit
1. Existing straight rotary lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 2.1 lb/ton of lime produced.
2. Existing straight rotary lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.047 lb/ton of lime produced.

3. Existing preheater rotary lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 0.36 lb/ton of lime produced.
4. Existing preheater rotary lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.087 lb/ton of lime produced.
5. Existing vertical lime kilns and their associated coolers producing dolomitic quick lime and/or dead burned dolomitic lime	HCl emissions must not exceed 0.36 lb/ton of lime produced.
6. Existing vertical lime kilns and their associated coolers producing high-calcium quick lime	HCl emissions must not exceed 0.019 lb/ton of lime produced.
7. Existing lime kilns and their associated coolers	Mercury emissions must not exceed 31 lb/MMton of lime produced.

Table 910 to Subpart AAAAA of Part 63 APplicability of General Provisions to Subpart AAAAA

As required in §63.7140, you must comply with the applicable General Provisions requirements according to the following table:

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.1(a)(1)-(4)	Applicability	Yes	
§63.1(a)(5)		No	
§63.1(a)(6)	Applicability	Yes	
§63.1(a)(7)-(a)(9)		No	
§63.1(a)(10)- (a)(14)	Applicability	Yes	
§63.1(b)(1)	Initial Applicability Determination	Yes	§§63.7081 and 63.7142 specify additional applicability determination requirements.

§63.1(b)(2)		No	
§63.1(b)(3)	Initial Applicability Determination	Yes	
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Permit Requirements	No	Area sources not subject to subpart AAAAA, except all sources must make initial applicability determination.
§63.1(c)(3)-(4)		No	
§63.1(c)(5)	Area Source Becomes Major	Yes	
§63.1(c)(6)	Reclassification	Yes	
§63.1(d)		No	
§63.1(e)	Applicability of Permit Program	Yes	
§63.2	Definitions	Yes	Additional definitions in §63.7143.
§63.3(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(a)(2)	Prohibited Activities	Yes	
§63.4(a)(3)-(a)(5))	No	
§63.4(b)-(c)	Circumvention, Severability	Yes	
§63.5(a)(1)-(2)	Construction/Reconstruction	Yes	
§63.5(b)(1)	Compliance Dates	Yes	
§63.5(b)(2)		No	
§63.5(b)(3)-(4)	Construction Approval, Applicability	Yes	
§63.5(b)(5)		No	
§63.5(b)(6)	Applicability	Yes	
§63.5(c)		No	
§63.5(d)(1)-(4)	Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	

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§63.5(f)(1)-(2)	Approval of Construction/Reconstruction	Yes	
§63.6(a)	Compliance for Standards and Maintenance	Yes	
§63.6(b)(1)-(5)	Compliance Dates	Yes	
§63.6(b)(6)		No	
§63.6(b)(7)	Compliance Dates	Yes	
§63.6(c)(1)-(2)	Compliance Dates	Yes	
§63.6(c)(3)-(c)(4)		No	
§63.6(c)(5)	Compliance Dates	Yes	
§63.6(d)		No	
§63.6(e)(1)(i)	General Duty to Minimize Emissions	Yes before the relevant compliance date for your source as specified in §63.7083(e) No on and after the relevant compliance date for your source as specified in §63.7083(e)	On and after the relevant compliance date for your source as specified in \$63.7083(e), see \$63.7100 for general duty requirement.
§63.6(e)(1)(ii)	Requirement to Correct Malfunctions ASAP	Yes before the relevant compliance date for your source as specified in §63.7083(e) No on and after the relevant compliance date for your source as specified in §63.7083(e)	
§63.6(e)(1)(iii)	Operation and Maintenance Requirements	Yes	

§63.6(e)(2)		No	[Reserved]
§63.6(e)(3)	Startup, Shutdown Malfunction Plan	Yes before the relevant compliance date for your source as specified in §63.7083(e) No on and after the relevant compliance date for your source as specified in §63.7083(e)	On and after the relevant compliance date for your source as specified in §63.7083(e), the OM&M plan must address periods of startup and shutdown. See §63.7100(d).
§63.6(f)(1)	SSM exemption	No	See §63.7100. For periods of startup and shutdown, see §63.7090(c).
§63.6(f)(2)-(3)	Methods for Determining Compliance	Yes	
\$63.6(g)(1)- (g)(3)	Alternative Standard	Yes	
§63.6(h)(1)	SSM exemption	No	See §63.7100. For periods of startup and shutdown, see §63.7090(c).
§63.6(h)(2)	Methods for Determining Compliance	Yes	
§63.6(h)(3)		No	
§63.6(h)(4)- (h)(5)(i)	Opacity/VE Standards	Yes	This requirement only applies to opacity and VE performance checks required in Table 5 to subpart AAAAA.
\$63.6(h)(5) (ii)- (iii)	Opacity/VE Standards	No	Test durations are specified in subpart AAAA; subpart AAAAA takes precedence.
§63.6(h)(5)(iv)	Opacity/VE Standards	No	
§63.6(h)(5)(v)	Opacity/VE Standards	Yes	
§63.6(h)(6)	Opacity/VE Standards	Yes	
§63.6(h)(7)	COM Use	Yes	

§63.6(h)(8)	Compliance with Opacity and VE	Yes	
§63.6(h)(9)	Adjustment of Opacity Limit	Yes	
\$63.6(i)(1)- (i)(14)	Extension of Compliance	Yes	
§63.6(i)(15)		No	
§63.6(i)(16)	Extension of Compliance	Yes	
§63.6(j)	Exemption from Compliance	Yes	
\$63.7(a)(1)-(a)(3)	Performance Testing Requirements	Yes	§63.7110 specifies deadlines; §63.7112 has additional specific requirements.
§63.7(b)	Notification	Yes	
§63.7(c)	Quality Assurance/Test Plan	Yes	
§63.7(d)	Testing Facilities	Yes	
\$63.7(e)(1)	Conduct of Tests	Yes before the relevant compliance date for your source as specified in §63.7083(e) No on and after the relevant compliance date for your source as specified in §63.7083(e)	§63.7112(b).
§63.7(e)(2)-(4)	Conduct of Tests	Yes	
§63.7(f)	Alternative Test Method	Yes	
§63.7(g)	Data Analysis	Yes	
§63.7(h)	Waiver of Tests	Yes	
§63.8(a)(1)	Monitoring Requirements	Yes	See §63.7113.
§63.8(a)(2)	Monitoring	Yes	
§63.8(a)(3)		No	
§63.8(a)(4)	Monitoring	No	Flares not applicable.

§63.8(b)(1)-(3)	Conduct of Monitoring	Yes	
\$63.8(c)(1)(i)	CMS Operation/Maintenance	Yes before the relevant compliance date for your source as specified in §63.7083(e) No on and after the relevant compliance date for your source as specified in §63.7083(e)	On and after the relevant compliance date for your source as specified in \$63.7083(e), see \$63.7100 for OM&M requirements.
§63.8(c)(1)(ii)	CMS Spare Parts	Yes	
\$63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS	relevant compliance date	On and after the relevant compliance date for your source as specified in §63.7083(e), no longer required.
§63.8(c)(2)-(3)	CMS Operation/Maintenance	Yes	
§63.8(c)(4)	CMS Requirements	No	See §63.7121.
\$63.8(c)(4)(i)-(ii)	Cycle Time for COM and CEMS	Yes	No CEMS are required under subpart AAAAA; see \$63.7113 for CPMS requirements.
§63.8(c)(5)	Minimum COM procedures	Yes	COM not required.
§63.8(c)(6)	CMS Requirements	No	See §63.7113.
§63.8(c)(7)-(8)	CMS Requirements	Yes	
§63.8(d)(1)-(2)	Quality Control	Yes	See also §63.7113.
§63.8(d)(3)	Quality Control	Yes before the relevant	

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		compliance date for your source as specified in \$63.7083(e) No on and after	
		the relevant compliance date for your source as specified in §63.7083(e)	
§63.8(e)	Performance Evaluation for CMS	Yes	See also §63.7113
§63.8(f)(1)-(f)(5)	Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy Test for CEMS	No	No CEMS required in subpart AAAAA.
§63.8(g)(1)- (g)(5)	Data Reduction; Data That Cannot Be Used	No	See data reduction requirements in §§63.7120 and 63.7121.
§63.9(a)	Notification Requirements	Yes	See §63.7130.
§63.9(b)	Initial Notifications	Yes	
§63.9(c)	Request for Compliance Extension	Yes	
§63.9(d)	New Source Notification for Special Compliance Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	
§63.9(f)	Notification of VE/Opacity Test	Yes	This requirement only applies to opacity and VE performance tests required in Table 5 to subpart AAAA. Notification not required for VE/opacity test under Table 7 to subpart AAAAA.
§63.9(g)	Additional CMS Notifications	No	Not required for operating parameter monitoring.

§63.9(h)(1)- (h)(3)	Notification of Compliance Status	Yes	
§63.9(h)(4)		No	
§63.9(h)(5)- (h)(6)	Notification of Compliance Status	Yes	
§63.9(i)	Adjustment of Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	
§63.9(k)	Electronic reporting procedures	Yes	Only as specified in §63.9(j)
§63.10(a)	Recordkeeping/Reporting General Requirements	Yes	See §§63.7131 through 63.7133.
§63.10(b)(1)	Records	Yes	
§63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns	Yes before the relevant compliance date for your source as specified in §63.7083(e) No on and after the relevant compliance date for your source as specified in §63.7083(e)	
§63.10(b)(2)(ii)	Recordkeeping of Failures to Meet a Standard	specified in §63.7083(e) No on and after the relevant compliance date	On and after the relevant compliance date for your source as specified in \$63.7083(e), see \$63.7132 for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.

§63.10(b)(2)(iii)	Maintenance Records	Yes	
§63.10(b)(2)(iv)- (v)	Actions Taken to Minimize Emissions During SSM	for your source as	On and after the relevant compliance date for your source as specified in §63.7083(e), see §63.7100 for OM&M requirements.
§63.10(b)(2)(vi)- (xii)	Recordkeeping for CMS	Yes	
§63.10(b)(2)(xiii)	Records for Relative Accuracy Test	No	
§63.10(b)(2)(xiv)	Records for Notification	Yes	
§63.10(b)(3)	Applicability Determinations	Yes	
§63.10(c)	Additional CMS Recordkeeping	No	See §63.7132.
§63.10(d)(1)	General Reporting Requirements	Yes	
§63.10(d)(2)	Performance Test Results	Yes	
\$63.10(d)(3)	Opacity or VE Observations		For the periodic monitoring requirements in Table 7 to subpart AAAAA, report according to §63.10(d)(3) only if VE observed and subsequent visual opacity test is required.
§63.10(d)(4)	Progress Reports	Yes	
§63.10(d)(5)(i)	Periodic Startup, Shutdown, Malfunction Reports	specified in	On and after the relevant compliance date for your source as specified in §63.7083(e), see §63.7131 for malfunction reporting requirements.

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		No on and after the relevant compliance date for your source as specified in §63.7083(e)	
§63.10(d)(5)(ii)	Immediate Startup, Shutdown, Malfunction Reports	Yes before the relevant compliance date for your source as specified in \$63.7083(e) No on and after the relevant compliance date for your source as specified in \$63.7083(e)	
§63.10(e)	Additional CMS Reports	No	See specific requirements in subpart AAAAA, see §63.7131.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes	
§63.11(a)-(b)	Control Device and Work Practice Requirements	No	Flares not applicable.
§63.12(a)-(c)	State Authority and Delegations	Yes	
§63.13(a)-(c)	State/Regional Addresses	Yes	
§63.14(a)-(b)	Incorporation by Reference	No	
§63.15(a)-(b)	Availability of Information and Confidentiality	Yes	
§63.16	Performance Track Provisions	Yes	

Table 11 to Subpart AAAAA of Part 63—Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessment of Polychlorinated Dibenzo-p-dioxins, Dibenzofurans, and Dioxin-like Polychlorinated Biphenyls

Compound	2005 TEFs ¹	
2,3,7,8-TCDD	1	

1,2,3,7,8-PeCDD	1
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.0003
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.03
2,3,4,7,8-PeCDF	0.3
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
OCDF	0.0003

¹ EPA/100/R-10/005, "Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds", December 2010.