

## 2.35 Lime Manufacturing Plants

### 2.35.1 Applicability and Designation of Affected Facility

- (a) The provisions of this source category are applicable to each rotary lime kiln used in the manufacture of lime.
- (b) The provisions of this source category are not applicable to facilities used in the manufacture of lime at kraft pulp mills.
- (c) Any facility under paragraph (a) of this section that commences construction or modification after May 3, 1977, is subject to the requirements of this source category.

### 2.35.2 Monitoring of Emissions and Operations

- (a) The owner or operator of a facility that is subject to the provisions of this source category shall install, calibrate, maintain, and operate a continuous monitoring system, except as provided in paragraphs (b) and (c) of this section, to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from any rotary lime kiln. The span of this system shall be set at 40 percent opacity.
- (b) The owner or operator of any rotary lime kiln having a control device with a multiple stack exhaust or a roof monitor may, in lieu of the continuous opacity monitoring requirement of 2.35.2(a), monitor visible emissions at least once per day of operation by using a certified visible emissions observer who, for each site where visible emissions are observed, will perform three Method 9 tests and record the results. Visible emission observations shall occur during normal operation of the rotary lime kiln at least once per day. For at least three 6-minute periods, the opacity shall be recorded for any point(s) where visible emissions are observed, and the corresponding feed rate of the kiln shall also be recorded. Records shall be maintained of any 6-minute average that is in excess of the applicable emissions standard.
- (c) The owner or operator of any rotary lime kiln using a wet scrubbing emission control device subject to the provisions of this subpart shall not be required to monitor the opacity of the gases discharged as required in paragraph (a) of this section, but shall install, calibrate, maintain, operate, and record the resultant information from the following continuous monitoring devices:
  - (1) A monitoring device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be accurate within  $\pm 250$  pascals (one inch of water).
  - (2) A monitoring device for continuous measurement of the scrubbing liquid supply pressure to the control device. The monitoring device must be accurate within  $\pm 5$  percent of the design scrubbing liquid supply pressure.
- (d) For the purpose of conducting a performance test under Section 1.2, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used must be accurate to within  $\pm 5$  percent of the mass rate over its operating range.
- (e) For the purpose of reports required under Section 1.5, periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) is greater than 15 percent or, in the case of wet scrubbers, any period in which the scrubber pressure drop is greater than 30 percent below the rate established during the performance test. If visible emission observations are made according to paragraph (b) of this section, reports of excess emissions shall be submitted semi-annually.

### 2.35.3 Test Methods and Procedures

- (a) In accordance with performance tests required in Section 1.2, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of this text or other methods and procedures as specified in this section, except as provided in Section 1.2(b).

(b) The owner or operator shall determine compliance with the particulate matter standards as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (c_s Q_{sd}) / PK$$

Where:

E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed.

$c_s$  = concentration of particulate matter, g/dscm (g/dscf).

$Q_{sd}$  = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P = stone feed rate, Mg/hr (ton/hr).

K = conversion factor, 1000 g/kg (453.6 g/lb).

(2) Method 5 shall be used at negative-pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration ( $c_s$ ) and the volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

(3) The monitoring device of Section 2.35.2 shall be used to determine the stone feed rate (P) for each run.

(4) Method 9 and the procedures in Section 1.3 shall be used to determine opacity.

(c) During the particulate matter run, the owner or operator shall use the monitoring devices in Section 2.35.2(c) (1) and (2) to determine the average pressure loss of the gas stream through the scrubber and the average scrubbing liquid supply pressure.