§ 63.1342

Startup means the time from when a shutdown kiln first begins firing fuel until it begins producing clinker. Startup begins when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup ends when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first.


Total organic HAP means, for the purposes of this subpart, the sum of the concentrations of compounds of formaldehyde, benzene, toluene, styrene, m-xylene, p-xylene, o-xylene, acetaldehyde, and naphthalene as measured by EPA Test Method 320 or Method 18 of appendix A to this part or ASTM D6348–031 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.

Totally enclosed conveying system transfer point means a conveying system transfer point that is enclosed on all sides, top, and bottom.


EMISSION STANDARDS AND OPERATING LIMITS

§ 63.1342 Standards: General.

Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to subpart LLL.

[71 FR 76549, Dec. 20, 2006]

§ 63.1343 What standards apply to my kilns, clinker coolers, raw material dryers, and open clinker storage piles?

(a) General. The provisions in this section apply to each kiln and any alkali bypass associated with that kiln, clinker cooler, raw material dryer, and open clinker storage pile. All D/F, HCl, and total hydrocarbon (THC) emissions limit are on a dry basis. The D/F, HCl, and THC limits for kilns are corrected to 7 percent oxygen. All THC emissions limits are measured as propane. Standards for mercury and THC are based on a rolling 30-day average. If using a CEMS to determine compliance with the HCl standard, this standard is based on a rolling 30-day average. You must ensure appropriate corrections for moisture are made when measuring flow rates used to calculate mercury emissions. The 30-day period means 30 consecutive kiln operating days excluding periods of startup and shutdown. All emissions limits for kilns, clinker coolers, and raw material dryers currently in effect that are superseded by the limits below continue to apply until the compliance date of the
limits below, or until the source certifies compliance with the limits below, whichever is earlier.

(b) Kilns, clinker coolers, raw material dryers, raw mills, and finish mills. (1) The emissions limits for these sources are shown in Table 1 below. PM limits for existing kilns also apply to kilns that have undergone a modification as defined in subpart A of part 60 of title 40.

**TABLE 1—Emissions Limits for Kilns, Clinker Coolers, Raw Material Dryers, Raw and Finish Mills**

<table>
<thead>
<tr>
<th>If your source is a</th>
<th>And the operating mode is</th>
<th>And if it is located at a</th>
<th>Your emissions limits are</th>
<th>And the units of the emissions limit are</th>
<th>The oxygen correction factor is</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Existing kiln</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>PM $^1$ 0.07 ...........</td>
<td>lb/ton clinker ..........................</td>
<td>NA.</td>
</tr>
<tr>
<td>2. Existing kiln</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>D/F $^2$ 0.2 ............</td>
<td>ng/dscm (TEQ) ..........................</td>
<td>NA.</td>
</tr>
<tr>
<td>3. Existing kiln</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>HCl 3 ...................</td>
<td>ppmvd ..................................</td>
<td>NA.</td>
</tr>
<tr>
<td>4. New kiln</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>PM 0.02 ..................</td>
<td>lb/ton clinker ..........................</td>
<td>NA.</td>
</tr>
<tr>
<td>5. New kiln</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>D/F $^2$ 0.2 ............</td>
<td>ng/dscm (TEQ) ..........................</td>
<td>7 percent.</td>
</tr>
<tr>
<td>6. New kiln</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>Mercury 21...............</td>
<td>ppmvd ..................................</td>
<td>NA.</td>
</tr>
<tr>
<td>7. Existing clinker cooler</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>PM 0.07 ..................</td>
<td>lb/ton clinker ..........................</td>
<td>NA.</td>
</tr>
<tr>
<td>8. Existing clinker cooler</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>Work practices ..........</td>
<td>NA. .....................................</td>
<td>NA.</td>
</tr>
<tr>
<td>9. New clinker cooler</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>PM 0.02 ..................</td>
<td>lb/ton clinker ..........................</td>
<td>7 percent.</td>
</tr>
<tr>
<td>10. New clinker cooler</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>Work practices ..........</td>
<td>NA. .....................................</td>
<td>NA.</td>
</tr>
<tr>
<td>11. Existing or new raw material dryer</td>
<td>Normal operation</td>
<td>Major or area source</td>
<td>THC $^3$ 4 24 ...........</td>
<td>ppmvd ..................................</td>
<td>NA.</td>
</tr>
<tr>
<td>12. Existing or new raw material dryer</td>
<td>Startup and shutdown</td>
<td>Major or area source</td>
<td>Work practices ..........</td>
<td>NA. .....................................</td>
<td>NA.</td>
</tr>
<tr>
<td>13. Existing or new raw or finish mill</td>
<td>All operating modes</td>
<td>Major source ............</td>
<td>Opacity 10 ...............</td>
<td>percent ..................................</td>
<td>NA.</td>
</tr>
</tbody>
</table>

$^1$The initial and subsequent PM performance tests are performed using Method 5 or 5I and consist of three 1-hr tests.

$^2$If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator) during the D/F performance test is $400 \, ^\circ\text{F}$ or less this limit is changed to 0.40 ng/dscm (TEQ).

$^3$Measured as propane.

$^4$Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP.

(2) When there is an alkali bypass and/or an inline coal mill with a separate stack associated with a kiln, the combined PM emissions from the kiln and the alkali bypass stack and/or the inline coal mill stack are subject to the PM emissions limit. Existing kilns that combine the clinker cooler exhaust and/or coal mill exhaust with the kiln exhaust and send the combined exhaust to the PM control device as a single stream may meet an alternative PM emissions limit. This limit is calculated using Equation 1 of this section:

$$PM_{alt} = (0.0060 \times 1.65)(Q_k + Q_c + Q_{ab} + Q_{cm}) / (7000) \quad (\text{Eq. 1})$$
Where:

$PM_{\text{alt}} =$ Alternative PM emission limit for commingled sources.

0.006 = The PM exhaust concentration (gr/dscf) equivalent to 0.070 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined.

1.65 = The conversion factor of ton feed per ton clinker.

$Q_k =$ The exhaust flow of the kiln (dscf/ton feed).

$Q_c =$ The exhaust flow of the clinker cooler (dscf/ton feed).

$Q_{\text{ab}} =$ The exhaust flow of the alkali bypass (dscf/ton feed).

$Q_{\text{cm}} =$ The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for grains (gr) per lb.

For new kilns that combine kiln exhaust and clinker cooler gas the limit is calculated using the Equation 2 of this section:

$$PM_{\text{alt}} = (0.0020 \times 1.65) \left( Q_k + Q_c + Q_{\text{ab}} + Q_{\text{cm}} \right) / 7000$$  (Eq. 2)

Where:

$PM_{\text{alt}} =$ Alternative PM emission limit for commingled sources.

0.002 = The PM exhaust concentration (gr/dscf) equivalent to 0.020 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined.

1.65 = The conversion factor of ton feed per ton clinker.

$Q_k =$ The exhaust flow of the kiln (dscf/ton feed).

$Q_c =$ The exhaust flow of the clinker cooler (dscf/ton feed).

$Q_{\text{ab}} =$ The exhaust flow of the alkali bypass (dscf/ton feed).

$Q_{\text{cm}} =$ The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for gr per lb.

(2) For open clinker storage piles, the operations and maintenance plan must specify that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive dust from open clinker storage piles: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents, use of a wind barrier, compaction, use of tarpaulin or other equally effective cover or use of a vegetative cover. You must select, for inclusion in the operations and maintenance plan, the fugitive dust control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.

(3) Temporary piles of clinker that result from accidental spillage or clinker storage cleaning operations must be cleaned up within 3 days.

(d) Emission limits in effect prior to September 9, 2010. Any source defined as an existing source in §63.1351, and that was subject to a PM, mercury, THC, D/F, or opacity emissions limit prior to September 9, 2010, must continue to meet the limits shown in Table 2 to this section until September 9, 2015.