

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 8996/PSD-TX-454M2

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
01	Primary Crusher (Mobile) Baghouse Stack	PM	0.15	0.7
		PM ₁₀	0.15	0.7
02	Secondary Crusher Baghouse Stack	PM	0.15	0.7
		PM ₁₀	0.15	0.7
03	Raw Material Transfer Point Baghouse Stack	PM	0.07	0.3
		PM ₁₀	0.07	0.3
04	Conveyor Belt Transfer Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
05	Raw Material Storage Bins Baghouse Stack	PM	0.19	0.8
		PM ₁₀	0.19	0.8
06	Raw Material Storage Shale Baghouse Stack	PM	0.19	0.8
		PM ₁₀	0.19	0.8
07	Rotary Kiln ESP Stack	NO _x	545.0	770.0
		CO	1100.0	1301.0
		THC	117.0	444.0
		(1-hour Average) SO ₂	2600.0	
		(3-hour Average) SO ₂	2300.0	
		(24-hour Average) SO ₂	1900.0	
		(Annual Limit) SO ₂		1769.0
		TRS	14.9	18.3
		(5) PM (filterable)	16.7	33.6
		PM ₁₀ (filterable)	16.7	33.6
		(6) PM (condensable)	353.0	102.6
		PM ₁₀ (condensable)	353.0	102.6
		PM (total)	367.4	131.6
		PM ₁₀ (total)	367.4	131.6
		H ₂ SO ₄	197.0	3.45

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
08	Rotary Kiln Feed Silo Upper Baghouse Stack	PM	0.87	3.8
		PM ₁₀	0.87	3.8
09	Rotary Kiln Feed Silo Lower Baghouse Stack	PM	0.87	3.8
		PM ₁₀	0.87	3.8
11	Waste Bypass Dust Baghouse Stack	PM	0.05	0.2
		PM ₁₀	0.05	0.2
12	Coal Handling Baghouse Stack	PM	0.16	0.7
		PM ₁₀	0.16	0.7
13	Coal Storage Bin Baghouse Stack	PM	0.07	0.3
		PM ₁₀	0.07	0.3
14	Clinker Conveyor Transfer Point Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
15	Clinker Conveyor Baghouse Stack	PM	0.18	0.8
		PM ₁₀	0.18	0.8
16	Gypsum Silo Baghouse Stack	PM	0.02	0.1
		PM ₁₀	0.02	0.1
17	Gypsum Discharge Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
18	Gypsum Weigh Feeder Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
19	Clinker Feeder No. 7 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
20	Clinker Feeder No. 1 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1

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			<u>lb/hr</u>	<u>TPY</u>
21	Clinker Feeder No. 6 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
22	Clinker Feeder No. 4 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
23	Finish Mill System No. 1 Baghouse Stack	PM	6.81	29.8
		PM ₁₀	6.81	29.8
24	Gypsum Weigh Feeder Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
25	Clinker Weigh Feeder No. 2 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
26	Clinker Weigh Feeder No. 5 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
27	Clinker Weigh Feeder No. 3 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
28	Clinker Weigh Feeder No. 8 Baghouse Stack	PM	0.03	0.1
		PM ₁₀	0.03	0.1
29	Finish Mill System No. 2 Baghouse Stack	PM	7.01	30.7
		PM ₁₀	7.01	30.7
30	Cement Silo No. 1 Discharge Baghouse Stack	PM	0.08	0.3
		PM ₁₀	0.08	0.3
31	Cement Silo No. 2 Discharge Baghouse Stack	PM	0.11	0.5
		PM ₁₀	0.11	0.5
32	Cement Silo No. 4 Discharge Baghouse Stack	PM	0.08	0.3
		PM ₁₀	0.08	0.3

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
33	Cement Silo No. 5 Discharge Baghouse Stack	PM	0.14	0.6
		PM ₁₀	0.14	0.6
34	Cement Silo No. 7 Discharge Baghouse Stack	PM	0.08	0.3
		PM ₁₀	0.08	0.3
35	Cement Silo No. 8 Discharge Baghouse Stack	PM	0.11	0.5
		PM ₁₀	0.11	0.5
36	Cement Silo No. 1 Filling Baghouse Stack	PM	0.27	1.2
		PM ₁₀	0.27	1.2
37	Cement Silo No. 7 Filling Baghouse Stack	PM	0.27	1.2
		PM ₁₀	0.27	1.2
38	Coal Storage (4)	PM	1.11	1.7
		PM ₁₀	0.52	0.8
39	Quarried Material Handling (4)	PM	3.12	1.0
		PM ₁₀	1.48	0.5
40	Raw Material Storage (4)	PM	0.17	0.5
		PM ₁₀	0.09	0.3
41	Cement Loadout Area (4)	PM	0.11	0.3
		PM ₁₀	0.05	0.2
42	Shale Crusher Discharge Baghouse Stack	PM	0.08	0.4
		PM ₁₀	0.08	0.4
43	Stacker Baghouse Stack	PM	0.08	0.4
		PM ₁₀	0.08	0.4

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
44	Raw Mill Feed Bins Baghouse Stack	PM	0.08	0.4
		PM ₁₀	0.08	0.4
45	Kiln Feed System No. 1 Baghouse Stack	PM	0.40	1.8
		PM ₁₀	0.40	1.8
46	Blending Silo Baghouse Stack	PM	0.13	0.6
		PM ₁₀	0.13	0.6
47	Kiln Feed System No. 2 Baghouse Stack	PM	0.81	3.50
		PM ₁₀	0.81	3.50
48	Pan-Conveyor Under Clinker Cooler Baghouse Stack	PM	0.16	0.7
		PM ₁₀	0.16	0.7
49	Bypass Dust Bin Bin Baghouse Stack	PM	0.16	0.7
		PM ₁₀	0.16	0.7
50	Clinker Silo No. 1 Baghouse Stack	PM	0.32	1.4
		PM ₁₀	0.32	1.4
51	Slag/Gypsum Bins and Belt Discharge Baghouse Stack	PM	0.09	0.4
		PM ₁₀	0.09	0.4
52	Clinker Silo No. 2 Baghouse Stack	PM	0.18	0.8
		PM ₁₀	0.18	0.8
53	Clinker Conveyor to Existing Silo Baghouse Stack	PM	0.18	0.8
		PM ₁₀	0.18	0.8
54	Belt-Air-Slide Transfer Point 1 Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
55	Belt-Air-Slide Transfer Point 2	PM	0.12	0.5

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			<u>lb/hr</u>	<u>TPY</u>
	Baghouse Stack	PM ₁₀	0.12	0.5

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
56	Bulk Loading 1 Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
57	Truck Loadout - 1 Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
58	Truck Loadout - 2 Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
59	Rail Loadout - 1 Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
60	Rail Loadout - 1 Baghouse Stack	PM	0.12	0.5
		PM ₁₀	0.12	0.5
61	Coal Mill Conveyor Baghouse Stack	PM	0.10	0.4
		PM ₁₀	0.10	0.4
62	Main Baghouse (Kiln No. 2)	NO _x	545.	770.0
		CO	1100.	1301.0
		THC	117.	444.0
		(1-hour Average) SO ₂	2600.0	
		(3-hour Average) SO ₂	2300.0	
		(24-hour Average) SO ₂	1900.0	
		(Annual Limit) SO ₂		1769.0
		TRS	14.9	18.3
		(5) PM (filterable)	16.7	33.6
		PM ₁₀ (filterable)	16.7	33.6
		(6) PM (condensable)	353.0	102.6
		PM ₁₀ (condensable)	353.0	102.6
		PM (total)	367.4	131.6
		PM ₁₀ (total)	367.4	131.6
		H ₂ SO ₄	197.0	3.45
63	SKS Baghouse Stack	PM	13.4	58.7
		PM ₁₀	13.4	58.7

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
64	Cement Mill Baghouse Stack	PM	1.14	5.0
		PM ₁₀	1.14	5.0
65	Coal Mill Baghouse Stack	PM	0.73	3.2
		PM ₁₀	0.73	3.2

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) PM - particulate matter, suspended in the atmosphere, including PM₁₀
 PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 NO_x - total oxides of nitrogen
 CO - carbon monoxide
 THC - total hydrocarbons
 SO₂ - sulfur dioxide
 TRS - total reduced sulfur
 H₂SO₄ - sulfuric acid mist
- (4) Fugitive emissions are an estimate only.
- (5) The PM filterable rates are based on front-half of sampling train only.
- (6) The PM condensibles are based on back-half of sampling train only.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

Maximum allowable clinker production rate of 7,000 tons/day calculated on a 30-day rolling average.

Dated February 26, 2002