

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 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)	PM	0.15	0.7
	Baghouse Stack	PM ₁₀	0.15	0.7
02	Secondary Crusher	PM	0.15	0.7
	Baghouse Stack	PM ₁₀	0.15	0.7
03	Raw Material Transfer Point		PM	0.07
	0.3			
	Baghouse Stack	PM ₁₀	0.07	0.3
04	Conveyor Belt Transfer	PM	0.12	0.5
	Baghouse Stack	PM ₁₀	0.12	0.5
05	Raw Material Storage Bins	PM	0.19	0.8
	Baghouse Stack	PM ₁₀	0.19	0.8
06	Raw Material Storage Shale		PM	0.19
	0.8			
	Baghouse Stack	PM ₁₀	0.19	0.8
07	Rotary Kiln Scrubber 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

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

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			lb/hr	TPY
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
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 0.1 Baghouse Stack		PM	0.03
		PM ₁₀	0.03	0.1
26	Clinker Weigh Feeder No. 5 0.1 Baghouse Stack		PM	0.03
		PM ₁₀	0.03	0.1
27	Clinker Weigh Feeder No. 3 0.1 Baghouse Stack		PM	0.03
		PM ₁₀	0.03	0.1

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Emission *	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
28	Clinker Weigh Feeder No. 8		PM	0.03
	0.1			
	Baghouse Stack	PM ₁₀	0.03	0.1
29	Finish Mill System No. 2	PM	7.01	30.7
	Baghouse Stack	PM ₁₀	7.01	30.7
30	Cement Silo No. 1 Discharge		PM	0.08
	0.3			
	Baghouse Stack	PM ₁₀	0.08	0.3
31	Cement Silo No. 2 Discharge		PM	0.11
	0.5			
	Baghouse Stack	PM ₁₀	0.11	0.5

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
32	Cement Silo No. 4 Discharge		PM	0.08
	0.3 Baghouse Stack	PM ₁₀	0.08	0.3
33	Cement Silo No. 5 Discharge		PM	0.14
	0.6 Baghouse Stack	PM ₁₀	0.14	0.6
34	Cement Silo No. 7 Discharge		PM	0.08
	0.3 Baghouse Stack	PM ₁₀	0.08	0.3
35	Cement Silo No. 8 Discharge		PM	0.11
	0.5 Baghouse Stack	PM ₁₀	0.11	0.5
36	Cement Silo No. 1 Filling	PM	0.27	1.2
	Baghouse Stack	PM ₁₀	0.27	1.2
37	Cement Silo No. 7 Filling	PM	0.27	1.2
	Baghouse Stack	PM ₁₀	0.27	1.2
38	Coal Storage (4)	PM	1.11	1.7
		PM ₁₀	0.52	0.8
39	Quarried Material	PM	3.12	1.0
	Handling (4)	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

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
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
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 0.7		PM	0.16
	Cooler Baghouse Stack	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 0.4	PM	0.09	0.4
		PM ₁₀	0.09	0.09
52	Clinker Silo No. 2	PM	0.18	0.8

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			lb/hr	TPY
	Baghouse Stack	PM ₁₀	0.18	0.8
53	Clinker Conveyor to Existing Silo		PM	0.18
	0.8 Baghouse Stack	PM ₁₀	0.18	0.8
54	Belt-Air-Slide Transfer Point 1		PM	0.12
	0.5 Baghouse Stack	PM ₁₀	0.12	0.5
55	Belt-Air-Slide Transfer Point 2		PM	0.12
	0.5 Baghouse Stack	PM ₁₀	0.12	0.5

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
56	Bulk Loading 1 Baghouse Stack	PM PM ₁₀	0.12 0.12	0.5 0.5
57	Truck Loadout - 1 Baghouse Stack	PM PM ₁₀	0.12 0.12	0.5 0.5
58	Truck Loadout - 2 Baghouse Stack	PM PM ₁₀	0.12 0.12	0.5 0.5
59	Rail Loadout - 1 Baghouse Stack	PM PM ₁₀	0.12 0.12	0.5 0.5
60	Rail Loadout - 1 Baghouse Stack	PM PM ₁₀	0.12 0.12	0.5 0.5
61	Coal Mill Conveyor Baghouse Stack	PM PM ₁₀	0.10 0.10	0.4 0.4
62	Main Scrubber Stack (Kiln No. 2) 770.0	NO _x		545.
		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

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
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 PM ₁₀	1.14 1.14	5.0 5.0
65	Coal Mill Baghouse Stack	PM PM ₁₀	0.73 0.73	3.2 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.

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>

Dated_____