

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 7369 and PSD-TX-120M3

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) (3)	Source lb/hr	Air Contaminant Name (2) TPY	Emission Rates *	
				Name
KS-1	Dry/Wet Kiln Exhaust (5)(7)(8) 847.85	PM (total)	193.53	
		PM ₁₀ (total)	164.20	719.34
		NO _x	950.00	4161.00
		SO ₂	2400.00	6299.42
		H ₂ SO ₄	222.00	533.82
		CO	702.50	3076.55
		VOC	277.55	395.58
		HCl	4.64	20.50
KS-1a	Dry Kiln Exhaust Baghouse Duct 63.24	PM (filterable)	14.44	
	(5)(6)(7)(8)	PM ₁₀ (filterable)	12.13	53.12
		PM (total)	25.44	111.42
		PM ₁₀ (total)	21.37	93.59
		NO _x	350.00	1971.00
		SO ₂	1200.00	366.58
		H ₂ SO ₄	120.00	47.64
		CO	522.50	2288.55
		VOC	97.55	320.44
		HCl	2.74	12.00
9a	Alkali Bypass Baghouse Stack (6)	PM (filterable)	3.06	13.41
		PM ₁₀ (filterable)	2.57	11.27
		PM (total)	5.39	23.63
		PM ₁₀ (total)	4.53	19.85
		NO _x	150.00	219.00
		SO ₂	360.00	676.84

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Emission Point No. (1)	Source	Air Contaminant Name (2)	Emission Rates *	
(3)	lb/hr	TPY		Name
		H ₂ SO ₄	18.00	33.84
		CO	100.00	438.00
		VOC	2.87	9.44
KS-1b	Wet Kiln Exhaust ESP(5)	PM (total)	162.70	712.80
		PM ₁₀ (total)	138.30	605.90
		NO _x	450.00	1971.00
		SO ₂	1200.00	5256.00
		H ₂ SO ₄	111.00	486.18
		CO	80.00	350.00
		VOC	15.00	65.70
		HCl	1.90	8.50
4	Solid Fuel Feed Bins Baghouse Stack	PM ₁₀	0.09	0.38
7	Blend Silo Roof Baghouse Stack	PM ₁₀	0.69	3.00
8	Dry Process Blend Tanks Bottom 0.48 Baghouse Stack		PM ₁₀	0.11
9b	Alkali Bypass Bin Baghouse Stack	PM ₁₀	0.21	0.90
10	Coal/Coke Bins Baghouse Stack	PM ₁₀	0.09	0.34
11	Dry System Clinker Cooler Baghouse Stack	PM ₁₀	12.25	53.66
14	Underground Clinker Tunnel	PM ₁₀	0.28	1.22

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>lb/hr</u>	<u>TPY</u>	
	Baghouse Stack			
25	Cement Silo No. 12 Baghouse	PM ₁₀	0.69	3.00
26	Cement Silo No. 14 Baghouse	PM ₁₀	0.34	1.50
31	Mill Baghouses Stack	PM ₁₀	0.26	1.01
32	Fuel Bin Baghouse Stack	PM ₁₀	0.59	2.33
33	Solid Fuel Fines Bin Baghouse Stack	PM ₁₀	0.06	0.03
38	Fringe Material Baghouse Stack	PM ₁₀	0.15	0.68
39	Turn Head Material Diverter Baghouse Stack	PM ₁₀	0.26	1.01
40	Feed Tank Baghouse Stack	PM ₁₀	0.15	0.68
41a	Separator Baghouse Stack (4)	PM ₁₀	2.98	13.06
41b	Mill Baghouse Stack (4)	PM ₁₀	1.20	5.26
F-B-1	Solid Fuel Drop to Bin	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-B-2	Solid Fuel Bin Drop to Conveyor		PM	<0.01
	0.01	PM ₁₀	<0.01	<0.01

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>lb/hr</u>	<u>TPY</u>	
	<u>Name (3)</u>			
F-B-3	Solid Fuel Conveyor Drop to Bins	PM		<0.01
	0.01	PM ₁₀	<0.01	<0.01
F-B-4	Feed Tank Drop to Drag Chain	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-B-5	Drag Chain Drop to Belt	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-B-6	Belt Transfer Drop	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-B-7	Belt Transfer Drop	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-B-8	Solid Fuel Drop to Mill Chute	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-C-1	Clinker Drop to Shuttle Belt	PM	0.30	1.30
		PM ₁₀	0.14	0.61
F-C-2	Shuttle Belt Drop to Clinker Barn	PM		0.30
	1.30	PM ₁₀	0.14	0.61
F-H-2	Solid Fuel Drop to Conveyor	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
F-L-1	Unpaved Roads	PM	---	25.34
		PM ₁₀	---	11.40

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>lb/hr</u>	<u>TPY</u>	
	<u>Name (3)</u>			
F-L-2	Solid Fuel Drop to Hopper	PM	0.01	0.05
		PM ₁₀	0.01	0.02
F-P-1	Solid Fuel Storage Drop to Pile		PM	0.01
	0.05			
		PM ₁₀	0.01	0.02
F-P-2	Wind Pile Erosion	PM	0.10	0.42
		PM ₁₀	0.05	0.20
F-P-7	Kiln Dust Drop to Piles	PM	<0.01	<0.01
		PM ₁₀	<0.01	<0.01
F-P-12	CKD Dry Kiln Pug Mill to Truck		PM	<0.01
	<0.01			
		PM ₁₀	<0.01	<0.01
F-Q-4	Quarry Loader Drop to Truck	PM	0.11	0.29
		PM ₁₀	0.05	0.14
F-Q-6	Primary Crusher	PM	<0.01	<0.01
		PM ₁₀	<0.01	<0.01
F-R-2	Belt Transfer Drop	PM	0.02	0.06
		PM ₁₀	0.01	0.03
F-R-3	Belt Drop to Tabernacle Transfer		PM	0.11
	0.29			
		PM ₁₀	0.05	0.14
F-R-6	Feed Belt Drop to RMS Shuttle Belt		PM	0.02
	0.04			
		PM ₁₀	0.01	0.02

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (3)</u>	<u>Name (2)</u> lb/hr	<u>TPY</u>	
F-R-7	RMS Shuttle Belt Drop to Pile	PM	0.02	0.04
		PM ₁₀	0.01	0.02
F-R-8	RMS Feeder Drop to Belt	PM	0.01	0.04
		PM ₁₀	0.01	0.02
F-R-9	RMS Belt Drop to Cross Plant Belt	PM		0.01
	0.04	PM ₁₀	0.01	0.02
F-R-10	Cross Plant Belt Drop to Shuttle Belt	PM		0.01
	0.04	PM ₁₀	0.01	0.02
F-R-11	Shuttle Belt Drop to Dry Feed Bins	PM		0.01
	0.04	PM ₁₀	0.01	0.02
F-R-12	Feed Bins Drop to Roller Mill Belt	PM		0.01
	0.04	PM ₁₀	0.01	0.02
F-TR-1	Paved Roads	PM	---	10.37
		PM ₁₀	---	0.86
F-TR-2	Solid Fuel Truck Unloading Drop	PM		0.02
	0.04	PM ₁₀	0.01	0.02

(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

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Emission *	Source	Air Contaminant	Emission Rates
Point No. (1)	Name (3)	Name (2)	
		lb/hr	TPY

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 particulate matter greater than 10 microns is emitted.
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide
- H₂SO₄ - sulfuric acid
- CO - carbon monoxide
- VOC - volatile organic compounds
- HCl - hydrogen chloride
- (4) EPNs 41a and 41b will never exhaust to the atmosphere simultaneously.
- (5) EPN KS-1 is the sum total of EPNs KS-1a and KS-1b. The individual emission allowables for each of EPNs KS-1a and KS-1b are for compliance purposes.
- (6) The PM and PM₁₀ filterable rates are based on front-half of sampling train only.
- (7) Until July 1, 2002, KS-1 is allowed a maximum annual SO₂ emission rate of 7,088.78 tons and KS-1a is allowed a maximum annual SO₂ emission rate of 1,832.78 tons.
- (8) Until July 1, 2002, KS-1 is allowed a maximum annual H₂SO₄ emission rate of 742.51 tons and KS-1a is allowed a maximum annual H₂SO₄ emission rate of 256.33 tons.

* 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

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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 _____