

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 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)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
KS-1	Dry/Wet Kiln Exhaust (5)	PM (total)	193.53	847.85
		PM ₁₀ (total)	164.20	719.34
		NO _x (10)	950.00	4161.00
		SO ₂	2760.00	6299.42
		H ₂ SO ₄	249.00	567.66
		CO	702.50	3076.55
		VOC	115.42	395.58
		HCl	4.64	20.50
KS-1a	Dry Kiln Exhaust Baghouse Duct (5)(6)	PM (filterable)	14.44	63.24
		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	(9)	(9)
		H ₂ SO ₄	(9)	(9)
		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	(9)	(9)
		H ₂ SO ₄	(9)	(9)
		CO	100.00	438.00
		VOC	2.87	9.44

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
KS-1b	Wet Kiln Exhaust ESP (5)	PM (total)	162.70	712.80
		PM ₁₀ (total)	138.30	605.90
		NO _x (10)	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 Baghouse Stack	PM ₁₀	0.11	0.48
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 Baghouse Stack	PM ₁₀	0.28	1.22
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

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			lb/hr	TPY
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
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

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

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

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

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- (1) Emission point identification - either specific equipment designation or emission point number (EPN) 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 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 as defined in Title 30 Texas Administrative Code § 101.1
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. KS-1a and KS-1b are not actual emission points. 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) -
- (8) -
- (9) SO₂ emissions from KS-1a and EPN 9a combined are limited to 1,560.00 pounds per hour (lb/hr) and 1,043.42 tons per year (tpy). The H₂SO₄ emissions from KS-1a and EPN 9a combined are limited to 138.00 lb/hr and 81.48 tpy.
- (10) The hourly NO_x emission limit for the wet kiln is based on a 30-day rolling NO_x emissions average. A 30-day rolling average is generated for each day as the average of all the day's hourly NO_x emission data and the preceding 29 days of hourly emission data (representing only those hours during kiln operation). The gaseous monitoring data shall be reduced to units of the permit allowable emission rate in lb/hr, calculated as a 30-day rolling average for NO_x at least once every week.

* 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

Dated April 7, 2004