

# 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.

Emission Point No. (1)	Source	AIR CONTAMINANTS DATA	
		Air Contaminant Name (2)	Emission Rates * Name
(3)	lb/hr	TPY	
KS-1a/KS-1	Dry Kiln Exhaust Baghouse Duct (5)	PM (filterable)	14.44
	63.24	PM <sub>10</sub> (filterable)	12.13
		PM (total)	25.44
		PM <sub>10</sub> (total)	21.37
		NO <sub>x</sub> (6) (7)	337.00
		SO <sub>2</sub>	(8)
		H <sub>2</sub> SO <sub>4</sub>	(8)
		CO	522.50
		VOC	97.55
		HCl	2.74
9a	Alkali Bypass Baghouse Stack (5)	PM (filterable)	3.06
		PM <sub>10</sub> (filterable)	2.57
		PM (total)	5.39
		PM <sub>10</sub> (total)	4.53
		NO <sub>x</sub>	150.00
		SO <sub>2</sub>	(8)
		H <sub>2</sub> SO <sub>4</sub>	(8)
		CO	100.00
		VOC	2.87
4	Coal Bins Baghouse Stack	PM	0.17
		PM <sub>10</sub>	0.17
7	Blend Silo Roof Baghouse Stack	PM	0.69
		PM <sub>10</sub>	0.69

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(3)	lb/hr	TPY	Name	
7A	Dry Kiln Preheat Tower Baghouse 1.52	PM	0.35	0.35
8	Dry Process Blend Tanks Bottom 0.48	PM <sub>10</sub>	0.35	1.52
	Baghouse Stack	PM	0.11	0.11
		PM <sub>10</sub>	0.11	0.48
9b	Alkali Bypass Bin Baghouse Stack	PM	0.21	0.90
		PM <sub>10</sub>	0.21	0.90
10	Coke Silo Dust Collector	PM	0.17	0.75
		PM <sub>10</sub>	0.17	0.75
11	Dry System Clinker Cooler Baghouse Stack	PM	12.25	53.66
		PM <sub>10</sub>	12.25	53.66
14	Underground Clinker Tunnel Baghouse Stack	PM	0.28	1.22
		PM <sub>10</sub>	0.28	1.22
15	Lime Injection Silo Baghouse	PM	0.09	0.38
		PM <sub>10</sub>	0.09	0.38
25	Cement Silo No. 12 Baghouse	PM	0.30	1.31
		PM <sub>10</sub>	0.30	1.31
26	Cement Silo No. 14 Baghouse	PM	0.30	1.31
		PM <sub>10</sub>	0.30	1.31
31	Solid Fuel Mill and Heater Dust Collectors	PM	2.63	11.51
		PM <sub>10</sub>	2.63	11.51
		SO <sub>2</sub>	0.17	0.76
		NO <sub>x</sub>	1.21	5.32
		CO	1.02	4.47
		VOC	0.07	0.29

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Emission Point No. (1)	Source	Air Contaminant Name (2)	Emission Rates *	
			Name	
(3)	lb/hr	TPY		
32	Fuel Bin Baghouse Stack	PM	1.18	5.18
		PM <sub>10</sub>	1.18	5.18
35	Diesel Fuel Tank	VOC	0.01	0.12
36	Gasoline Fuel Tank	VOC	0.18	1.67
38	Fringe Material Baghouse Stack 0.56	PM		0.13
		PM <sub>10</sub>	0.13	0.56
39	Turn Head Material Diverter Baghouse Stack	PM	0.26	1.13
		PM <sub>10</sub>	0.26	1.13
40	Feed Tank Baghouse Stack	PM	0.26	1.13
		PM <sub>10</sub>	0.26	1.13
41a	Separator Baghouse Stack (4)	PM	2.98	13.06
		PM <sub>10</sub>	2.98	13.06
41b	Mill Baghouse Stack (4)	PM	1.20	5.26
		PM <sub>10</sub>	1.20	5.26
43a	Limestone Feeding Bin Baghouse 3.75	PM		0.86
		PM <sub>10</sub>	0.86	3.75
45	Cement Storage Silo 15A	PM	0.77	3.38
		PM <sub>10</sub>	0.77	3.38
46	Cement Storage Silo 15B	PM	0.77	3.38
		PM <sub>10</sub>	0.77	3.38

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			Name	
(3)	lb/hr	TPY		
47	Cement Storage Silo 16	PM	0.77	3.38
		PM <sub>10</sub>	0.77	3.38
48	Cement Bulk Loadout baghouse	PM	0.26	1.13
		PM <sub>10</sub>	0.26	1.13
49	Cement Bulk Loadout baghouse	PM	0.26	1.13
		PM <sub>10</sub>	0.26	1.13
61	Cement Storage Silo	PM	0.43	1.88
		PM <sub>10</sub>	0.43	1.88
321	CKD return baghouse	PM	0.04	0.19
		PM <sub>10</sub>	0.04	0.19
411	Bagging machine feed bin baghouse	PM		0.13
	0.56	PM <sub>10</sub>	0.13	0.56
F-B-1	Solid Fuel Drop to Bin (9)	PM	0.04	0.02
		PM <sub>10</sub>	0.02	0.01
F-B-2	Solid Fuel Bin Drop to Conveyor (9)	PM		<0.01
	0.02	PM <sub>10</sub>	<0.01	0.01
F-B-3	Solid Fuel Conveyor Drop to Bins (9)	PM		<0.01
	0.02	PM <sub>10</sub>	<0.01	0.01

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Emission Point No. (1)	Source	Air Contaminant Name (2)	<u>Emission Rates *</u>	
(3)	lb/hr	TPY	Name	
F-B-4	Feed Tank Drop to Drag Chain (9) 0.02	PM	<0.01	
		PM <sub>10</sub>	<0.01	0.01
F-C-1	Clinker Drop to Shuttle Belt (9) 1.30	PM	0.30	
		PM <sub>10</sub>	0.14	0.61
F-C-2	Shuttle Belt Drop to Clinker Barn (9) 1.30	PM	0.30	
		PM <sub>10</sub>	0.14	0.61
F-H-2	Solid Fuel Drop to Conveyor (9) 0.02	PM	0.04	
		PM <sub>10</sub>	0.02	0.01
F-LC-1	Solid Fuel Lump Crusher (9)	PM	0.04	0.02
		PM <sub>10</sub>	0.02	0.01
F-L-2	Solid Fuel Drop to Hopper (9)	PM	0.04	0.02
		PM <sub>10</sub>	0.02	0.01
F-P-1	Solid Fuel Storage Drop to Pile (9) 0.16	PM	0.37	
		PM <sub>10</sub>	0.18	0.07
F-P-2	Wind Pile Erosion (9)	PM	---	0.36
		PM <sub>10</sub>	---	0.18
F-P-7	Kiln Dust Drop to Piles (9)	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01

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Emission Point No. (1)	Source (3)	Air Contaminant Name (2)	Emission Rates *	
			Name	
	lb/hr	TPY		
F-P-12	CKD Dry Kiln Pug Mill to Truck (9) <0.01	PM		<0.01
		PM <sub>10</sub>	<0.01	<0.01
F-Q-4	Quarry Loader Drop to Truck (9) 0.43	PM		0.13
		PM <sub>10</sub>	0.06	0.20
F-Q-6	Primary Crusher (9)	PM	0.01	0.02
		PM <sub>10</sub>	<0.01	0.01
F-R-2	Belt Transfer Drop (9)	PM	0.13	0.43
		PM <sub>10</sub>	0.06	0.20
F-R-3	Belt Drop to Tabernacle Transfer (9) 0.43	PM		0.13
		PM <sub>10</sub>	0.06	0.20
F-R-6	Feed Belt Drop to RMS Shuttle Belt (9) 0.40	PM		0.09
		PM <sub>10</sub>	0.04	0.19
F-R-7	RMS Shuttle Belt Drop to Pile (9) 0.40	PM		0.09
		PM <sub>10</sub>	0.04	0.19
F-R-8	RMS Feeder Drop to Belt (9)	PM	0.09	0.40
		PM <sub>10</sub>	0.04	0.19
F-R-9	RMS Belt Drop to Cross Plant Belt (9) 0.40	PM		0.09
		PM <sub>10</sub>	0.04	0.19

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Emission Point No. (1)	Source	Air Contaminant Name (2)	<u>Emission Rates *</u>	
(3)	lb/hr	TPY	Name	
F-R-10	Cross Plant Belt Drop to Shuttle Belt (9) 0.40	PM	0.09	
		PM <sub>10</sub>	0.04	0.19
F-R-11	Shuttle Belt Drop to Dry Feed Bins (9) 0.40	PM	0.09	
		PM <sub>10</sub>	0.04	0.19
F-R-12	Feed Bins Drop to Roller Mill Belt (9) 0.40	PM	0.09	
		PM <sub>10</sub>	0.04	0.19
F-TR-2	Solid Fuel Truck Unloading Drop (9) 0.16	PM	0.37	
		PM <sub>10</sub>	0.18	0.07
D-2	Dry Kiln Emergency Diesel Engine 0.99	NO <sub>x</sub>	2.26	
		CO	0.49	0.21
		VOC	0.18	0.08
		PM <sub>10</sub>	0.16	0.07
		SO <sub>2</sub>	0.15	0.07
D-3	Emergency Fire Pump Diesel Engine 1.70	NO <sub>x</sub>	3.88	
		CO	0.84	0.37
		VOC	0.31	0.14
		PM <sub>10</sub>	0.28	0.12
		SO <sub>2</sub>	0.26	0.11

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Emission Point No. (1)	Source lb/hr	Air Contaminant Name (2)	<u>Emission Rates *</u> Name	
(3)		TPY		
FEL-DRY	Front End Loader (Dry Process) (9) <0.01	PM		<0.01
		PM <sub>10</sub>	<0.01	<0.01
DROP-DRY	Conveyor Drop (Dry Process) (9) 0.03	PM		0.28
		PM <sub>10</sub>	0.13	0.01
DEG 1- 6	Degreasers (9)	VOC	10.31	1.34
TMH 1	Synthetic Gypsum Unloading (9) 0.07	PM		0.02
		PM <sub>10</sub>	0.01	0.04
TMH 2	Synthetic Gypsum Hopper Loading (9) 0.02	PM		0.01
		PM <sub>10</sub>	<0.01	<0.01
TMH 3	Synthetic Gypsum Transfer Drop (9) <0.01	PM		<0.01
		PM <sub>10</sub>	<0.01	<0.01
TMH 4	Synthetic Gypsum Transfer Drop (9) <0.01	PM		<0.01
		PM <sub>10</sub>	<0.01	<0.01
TMH 5	Synthetic Gypsum Pile (9)	PM	---	0.60
		PM <sub>10</sub>	---	0.30
TMH 6	Synthetic Gypsum Unloading (9) 0.02	PM		<0.01
		PM <sub>10</sub>	<0.01	0.01



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(3)	lb/hr	TPY		
TMH 7	Synthetic Gypsum Hopper Loading (9) 0.01		PM	<0.01
		PM <sub>10</sub>	<0.01	<0.01
TMH 8	Synthetic Gypsum Transfer Drop (9) <0.01		PM	<0.01
		PM <sub>10</sub>	<0.01	<0.01

- (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 PM<sub>10</sub>.
  - PM<sub>10</sub> - 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<sub>x</sub> - total oxides of nitrogen
  - SO<sub>2</sub> - sulfur dioxide
  - H<sub>2</sub>SO<sub>4</sub> - sulfuric acid
  - CO - carbon monoxide
  - VOC - volatile organic compounds
  - HCl - hydrogen chloride
- (4) The EPNs 41a and 41b will never exhaust to the atmosphere simultaneously.
- (5) The PM and PM<sub>10</sub> filterable rates are based on front-half of sampling train only.
- (6) The hourly NO<sub>x</sub> emission limit for the wet kiln is based on a 30-day rolling NO<sub>x</sub> emissions average. A 30-day rolling average is generated for each day as the average of all the day's hourly NO<sub>x</sub> 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<sub>x</sub> at least once every week.

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(3)	lb/hr	TPY	

- (7) The facility is complying with the alternative reduction technologies allowed under Title 30 Texas Administrative Code Chapter 117.
- (8) The SO<sub>2</sub> emissions from EPNs KS-1a and 9a combined are limited to 1,560.00 pounds per hour (lb/hr) and 1,043.42 tons per year (tpy). The H<sub>2</sub>SO<sub>4</sub> emissions from EPNs KS-1a and 9a combined are limited to 138.00 lb/hr and 81.48 tpy.
- (9) Emission limits are an estimate only and only the represented throughputs presented in the permit application are enforceable.  
**(08/07)**

\* 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 February 27, 2008