

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 19841

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)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
BP-1	CaCO ₃ Silos Baghouse Stack	PM ₁₀	0.05	0.01
BP-2	Batching/Milling/Glaze Prep/ Glaze Lines 1 and 2 Baghouse Stack	PM ₁₀	4.11	17.53
		Pb	0.0003	0.001
BP-3	Spray Dryers 1 and 2 Baghouse Stack	PM ₁₀	5.14	21.91
		VOC	0.36	1.56
		CO	2.22	9.48
		NO _x	5.38	22.92
		SO ₂	0.04	0.16
CS	Press(1-9)/Glaze(3-9) Baghouse Stack	PM ₁₀	8.85	37.70
		Pb	0.0003	0.001
PR-1	Dryer 1 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04
PR-2	Dryer 2 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04

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			<u>lb/hr</u>	<u>TPY</u>
PR-3	Dryer 3 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04
PR-4	Dryer 4 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04
PR-5	Dryer 5 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04
PR-6	Dryer 6 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04
PR-7	Dryer 7 Stack	PM ₁₀	0.19	0.82
		VOC	0.01	0.04
		CO	0.02	0.09
		NO _x	0.10	0.43
		SO ₂	0.01	0.04

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			lb/hr	TPY
KS-1	Kiln 1 Stack	PM ₁₀ **	2.18	9.31
		VOC	0.23	1.00
		CO	0.27	1.19
		NO _x	2.90	12.71
		SO ₂	0.19	0.81
		HF	1.21	5.14
		HCl	1.02	4.35
		Pb	0.01	0.06
KS-2	Kiln 2 Stack	PM ₁₀ **	3.15	13.43
		VOC	0.21	0.92
		CO	0.25	1.10
		NO _x	2.66	11.65
		SO ₂	0.17	0.74
		HF	1.11	4.72
		HCl	0.94	3.99
		Pb	0.01	0.04
KS-3	Kiln 3 Stack	PM ₁₀ **	1.20	5.12
		VOC	0.21	0.92
		CO	0.25	1.10
		NO _x	2.66	11.65
		SO ₂	0.17	0.74
		HF	1.11	4.72
		HCl	0.94	3.99
		Pb	0.01	0.04
KS-4	Kiln 4 Stack	PM ₁₀ **	1.75	7.45
		VOC	0.31	1.34
		CO	0.36	1.59
		NO _x	3.87	16.95
		SO ₂	0.25	1.08
		HF	1.61	6.86
		HCl	1.36	5.80
		Pb	0.02	0.06
KC-1	Kiln 1 Cooler Stack	PM ₁₀ **	2.25	9.59
		HF	0.10	0.42

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			<u>lb/hr</u>	<u>TPY</u>
		HCl	0.27	1.17
		Pb	0.002	0.01
KC-2	Kiln 2 Cooler Stack	PM ₁₀ **	0.26	1.11
		HF	0.09	0.39
		HCl	0.25	1.07
		Pb	0.0008	0.003
KC-3	Kiln 3 Cooler Stack	PM ₁₀ **	1.20	5.11
		HF	0.09	0.39
		HCl	0.25	1.07
		Pb	0.0008	0.003
KC-4	Kiln 4 Cooler Stack	PM ₁₀ **	1.75	7.44
		HF	0.13	0.56
		HCl	0.37	1.56
		Pb	0.001	0.01
F-1	Raw Material Stockpiles (4) (Stockpile Nos. 1-3)	PM	-	0.32
		PM ₁₀	-	0.16

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources use area name or fugitive source name.

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- (3) PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter equal to or less than 10 microns. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
Pb - lead or lead compounds and separate from PM₁₀. **(1/98)**
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
CO - carbon monoxide
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
HF - hydrogen fluoride
HCl - hydrogen chloride **(02/02)**
- (4) Fugitive emissions are an estimate only.

- * Emission rates are based on and the facilities are limited by the following maximum operating schedule and material throughput rates: **(2/06)**

24 Hrs/day 7 Days/week 52 Weeks/year 8,520 Total hrs/year

Kiln No. 1 Throughput: 6.61 Tons/hour

Kiln No. 2 Throughput: 6.06 Tons/hour

Kiln No. 3 Throughput: 6.06 Tons/hour

Kiln No. 4 Throughput: 8.82 Tons/hour

Total Annual Kiln Throughput (combined): 234,790 Tons/year

(All kilns operate 8,760 Total hrs/year which includes 240 hrs/year for natural gas combustion only)

- ** Ammonium chloride emissions constitute a portion of the PM₁₀ emissions. **(02/02)**

Dated February 3, 2006