

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>	
			lb/hr	TPY
BP-2	Batching/Milling/Glaze Prep/Glaze Lines 1 and 2 Baghouse Stack (Baghouses BP-2A, BP-2B, BP-2C, and BP-2D)	PM/PM ₁₀ /PM _{2.5}	4.86	20.70
		CR ⁶⁺ (5)	0.01	0.02
BP-3	Spray Dryers 1 and 2 Baghouse Stack (Baghouses BP-3, BP-4A, and BP-4B)	PM/PM ₁₀ /PM _{2.5}	5.13	21.84
		SO ₂	0.63	2.68
		NO _x	4.63	19.74
		CO	3.89	16.58
		VOC	0.25	1.09
CS	Presses 1-7 and Glaze Lines 3-9 Baghouse Stack (Baghouses CS-1, CS-2, CS-3, and CS-4)	PM/PM ₁₀ /PM _{2.5}	8.85	37.70
		CR ⁶⁺ (5)	<0.01	0.02
PR-1	Press Dryer 1	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-2	Press Dryer 2	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85

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VOC	0.01	0.05
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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
PR-3	Press Dryer 3	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-4	Press Dryer 4	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-5	Press Dryer 5	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-6	Press Dryer 6	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-7	Press Dryer 7	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
KS-1	Kiln 1 Stack	PM/PM ₁₀ /PM _{2.5} (6)	2.44	10.41
		SO ₂	2.94	10.65
		NO _x	1.96	7.28
		CO	5.54	19.49
		VOC	0.76	2.77
		HF	1.35	5.76
		HCl	1.14	4.87
		Pb (4)	0.01	0.05
KS-4	Kiln 4 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.97	8.41
		SO ₂	3.95	14.28
		NO _x	2.63	9.76
		CO	7.43	26.12
		VOC	1.02	3.72
		HF	1.81	7.72
		HCl	1.53	6.53
		Pb (4)	0.02	0.08
KS-5	Kiln 5 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.15	4.92
		SO ₂	22.84	39.94
		NO _x	2.69	11.72
		CO	7.61	32.64
		VOC	1.11	4.74
		HF	1.66	7.07
		HCl	1.31	5.58
		Pb (4)	0.02	0.09
KC-1	Kiln Cooler 1 Stack	PM/PM ₁₀ /PM _{2.5} (6)	2.52	10.73
		HF	0.11	0.47
		HCl	0.31	1.32
		Pb (4)	<0.01	0.01

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KC-4	Kiln Cooler 4 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.97	8.38
		HF	0.15	0.63
		HCl	0.42	1.77
		Pb (4)	<0.01	<0.01
KC-5	Kiln Cooler 5 Stack	PM/PM ₁₀ /PM _{2.5} (6)	2.35	10.01
		HF	0.13	0.55
		HCl	0.36	1.53
		Pb (4)	0.02	0.01
BP-5	Spray Dryer 3 Baghouse Stack	PM/PM ₁₀ /PM _{2.5}	1.93	8.22
		SO ₂	0.66	2.82
		NO _x	4.39	18.71
		CO	3.69	15.72
		VOC	0.24	1.03
PR-10	Press Dryer 10	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
PR-11	Press Dryer 11	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05
PR-12	Press Dryer 12	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05
PR-13	Press Dryer 13	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05
PR-14	Press Dryer 14	PM/PM ₁₀ /PM _{2.5}	0.38	1.62
		SO ₂	<0.01	0.02
		NO _x	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05
CS-B	Presses 10-16, Conveyor Systems, and Plant 2 Glaze Lines 10-19 Baghouse Stack (Baghouses P2-CSA and P2-CS2B)	PM/PM ₁₀ /PM _{2.5}	2.14	9.13
		CR ⁶⁺ (5)	<0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
KS-A1	Kiln A Layer 1 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.55	5.83
		SO ₂	14.66	56.43
		NO _x	2.26	9.85
		CO	6.40	22.68
		VOC	0.88	3.22
		HF	1.56	6.64
		HCl	1.32	5.61
		Pb (4)	0.01	0.05
KS-A2	Kiln A Layer 2 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.55	5.83
		SO ₂	14.66	56.43
		NO _x	2.26	9.85
		CO	6.40	22.68
		VOC	0.88	3.22
		HF	1.56	6.64
		HCl	1.32	5.61
		Pb (4)	0.01	0.05
KS-B1	Kiln B Layer 1 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.55	5.83
		SO ₂	14.66	56.43
		NO _x	2.26	9.85
		CO	6.40	22.68
		VOC	0.88	3.22
		HF	1.56	6.64
		HCl	1.32	5.61
		Pb (4)	0.01	0.05
KS-B2	Kiln B Layer 2 Stack	PM/PM ₁₀ /PM _{2.5} (6)	1.55	5.83
		SO ₂	14.66	56.43
		NO _x	2.26	9.85
		CO	6.40	22.68
		VOC	0.88	3.22
		HF	1.56	6.64
		HCl	1.32	5.61
		Pb (4)	0.01	0.05

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KC-A1	Kiln A Cooler Stack 1	PM/PM ₁₀ /PM _{2.5} (6)	0.30	1.27
		HF	0.13	0.54
		HCl	0.36	1.53
		Pb (4)	<0.01	0.01
KC-A2	Kiln A Cooler Stack 2	PM/PM ₁₀ /PM _{2.5} (6)	0.30	1.27
		HF	0.13	0.54
		HCl	0.36	1.53
		Pb (4)	<0.01	0.01
KC-B1	Kiln B Cooler Stack 1	PM/PM ₁₀ /PM _{2.5} (6)	0.30	1.27
		HF	0.13	0.54
		HCl	0.36	1.53
		Pb (4)	<0.01	0.01
KC-B2	Kiln B Cooler Stack 2	PM/PM ₁₀ /PM _{2.5} (6)	0.30	1.27
		HF	0.13	0.54
		HCl	0.36	1.53
		Pb (4)	<0.01	0.01
KD-A	Kiln A Pre-Dryer	PM/PM ₁₀ /PM _{2.5} (6)	0.42	1.79
		SO ₂	0.07	0.28
		NO _x	0.20	0.92
		CO	8.94	33.48
		VOC	8.05	29.16
		HF	0.09	0.36
		HCl	0.07	0.29
		Pb (4)	<0.01	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
KD-B	Kiln B Pre-Dryer	PM/PM ₁₀ /PM _{2.5} (6)	0.42	1.79
		SO ₂	0.07	0.28
		NO _x	0.20	0.92
		CO	8.94	33.48
		VOC	8.05	29.16
		HF	0.09	0.36
		HCl	0.07	0.29
		Pb (4)	<0.01	<0.01
F-1	Raw Material Stockpiles (Stockpiles Nos. 1-3) (4)	PM	0.08	0.37
		PM ₁₀ /PM _{2.5}	0.04	0.18

- (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 an area name or fugitive source name.
- (3) PM - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
 PM₁₀ - particulate matter equal to or less than 10 microns in diameter
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 SO₂ - sulfur dioxide
 NO_x - total oxides of nitrogen
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 CO - carbon monoxide
 HF - hydrogen fluoride
 HCl - hydrogen chloride **(02/02)**
 Pb - lead or lead compounds **(1/98)**
 Cr⁶⁺ - hexavalent chromium **(03/07)**
- (4) Fugitive emissions are an estimate only.
- (5) Lead emissions are included in the total hourly and annual PM/PM₁₀ emission rates.
- (6) Hexavalent chromium emissions are included in the total hourly and annual PM/PM₁₀ emission rates. **(03/07)**
- (7) Ammonium chloride emissions constitute a portion of the PM₁₀ emissions. **(02/02)**

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Dated: April 7, 2011