

# 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, sources, and related activities. 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 (7)	
			lbs/hour	TPY (4)
BP-2	Batching/Milling/Glaze Prep/Glaze Lines 1 and 2 Baghouse Stack (Baghouses BP-2A, BP-2B, BP-2C, and BP-2D)	PM	4.86	20.70
		PM <sub>10</sub>	4.86	20.70
		PM <sub>2.5</sub>	4.86	20.70
		CR <sup>6+</sup> (6)	0.01	0.02
BP-3	Spray Dryer 2 Baghouse Stack (Baghouse BP-3, BP-4A, BP-4B)	PM	5.13	--
		PM <sub>10</sub>	5.13	--
		PM <sub>2.5</sub>	5.13	--
		SO <sub>2</sub>	0.63	--
		NO <sub>x</sub>	4.63	--
		CO	3.89	--
		VOC	0.25	--
BP-5	Spray Dryer 3 Baghouse Stack	PM	1.93	--
		PM <sub>10</sub>	1.93	--
		PM <sub>2.5</sub>	1.93	--
		SO <sub>2</sub>	0.66	--
		NO <sub>x</sub>	4.39	--
		CO	3.69	--
		VOC	0.24	--
BP-6	Spray Dryer 4 Baghouse Stack	PM	2.07	--
		PM <sub>10</sub>	2.07	--
		PM <sub>2.5</sub>	2.07	--

## Emission Sources - Maximum Allowable Emission Rates

		SO <sub>2</sub>	0.42	--
		NO <sub>x</sub>	4.50	--
		CO	9.92	--
		VOC	0.24	--
BP-3, BP-5, BP-6	Spray Dryer Baghouse Stacks - Total Annual Emissions	PM	--	34.27
		PM <sub>10</sub>	--	34.27
		PM <sub>2.5</sub>	--	34.27
		SO <sub>2</sub>	--	6.27
		NO <sub>x</sub>	--	43.83
		CO	--	63.10
		VOC	--	2.42
CS	Presses 1-7 and Glaze Lines 3-9 Baghouse Stack (Baghouses CS-1, CS-2, CS-3, and CS-4)	PM	8.85	37.70
		PM <sub>10</sub>	8.85	37.70
		PM <sub>2.5</sub>	8.85	37.70
		CR <sup>6+</sup> (6)	<0.01	0.02
PR-1	Press Dryer 1 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.13	0.57
PR-1	Press Dryer 1 Stack	CO	2.54	10.85
		VOC	0.01	0.05
PR-2	Press Dryer 2 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62

## Emission Sources - Maximum Allowable Emission Rates

		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-3	Press Dryer 3 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-4	Press Dryer 4 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05
PR-5	Press Dryer 5 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.13	0.57
		CO	2.54	10.85
		VOC	0.01	0.05

## Emission Sources - Maximum Allowable Emission Rates

KCSYS1	Kiln Control System 1 (Dry Scrubber) and Cooling Stacks (Kiln 1, Kiln Cooler 1, Kiln 3, Kiln Cooler 3)	PM	8.68	36.96
		PM <sub>10</sub>	8.68	36.96
		PM <sub>2.5</sub>	8.68	36.96
		SO <sub>2</sub>	6.89	9.09
		NO <sub>x</sub>	4.73	17.64
		CO	16.32	59.89
		VOC	2.08	7.75
		HF	3.42	2.85
		HCl	3.40	2.85
		Pb (5)	0.05	0.15
KCSYS2	Kiln Control System 2 (Dry Scrubber) and Cooling Stacks (Kiln 2, Kiln Cooler 2)	PM	3.50	14.93
		PM <sub>10</sub>	3.50	14.93
		PM <sub>2.5</sub>	3.50	14.93
		SO <sub>2</sub>	22.84	14.06
		NO <sub>x</sub>	2.69	11.72
		CO	7.61	32.64
KCSYS2	Kiln Control System 2 (Dry Scrubber) and Cooling Stacks (Kiln 2, Kiln Cooler 2)	VOC	1.11	4.74
		HF	1.81	1.49
		HCl	1.67	1.40
		Pb (5)	0.04	0.10
PR-10	Press Dryer 10 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.14	0.64

## Emission Sources - Maximum Allowable Emission Rates

		CO	2.54	10.85
		VOC	0.01	0.05
PR-11	Press Dryer 11 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05
PR-12	Press Dryer 12 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.14	0.64
PR-12	Press Dryer 12 Stack	CO	2.54	10.85
		VOC	0.01	0.05
PR-13	Press Dryer 13 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62
		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	0.14	0.64
		CO	2.54	10.85
		VOC	0.01	0.05
PR-14	Press Dryer 14 Stack	PM	0.38	1.62
		PM <sub>10</sub>	0.38	1.62

## Emission Sources - Maximum Allowable Emission Rates

		PM <sub>2.5</sub>	0.38	1.62
		SO <sub>2</sub>	<0.01	0.02
		NO <sub>x</sub>	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	2.14	9.13
		PM <sub>10</sub>	2.14	9.13
		PM <sub>2.5</sub>	2.14	9.13
		CR <sup>6+</sup> (6)	<0.01	0.01
KCSYS3	Kiln Control System 3 (Dry Scrubber) and Cooling Stacks (Kiln A Predryer, Kiln A1, Kiln A Cooler 1, Kiln A2, Kiln A Cooler 2)	PM	4.12	15.99
		PM <sub>10</sub>	4.12	15.99
		PM <sub>2.5</sub>	4.12	15.99
		SO <sub>2</sub>	29.39	50.43
		NO <sub>x</sub>	4.72	20.62
		CO	21.74	78.84
		VOC	9.81	35.60
		HF	3.47	2.80
		HCl	3.43	2.81
		Pb (5)	0.05	0.13
KCSYS4	Kiln Control System 4 (Dry Scrubber) and Cooling Stacks (Kiln B Predryer, Kiln B1, Kiln B Cooler 1, Kiln B2, Kiln B Cooler 2)	PM	4.12	15.99
		PM <sub>10</sub>	4.12	15.99
		PM <sub>2.5</sub>	4.12	15.99
		SO <sub>2</sub>	29.39	50.43
		NO <sub>x</sub>	4.72	20.62
		CO	21.74	78.84

Emission Sources - Maximum Allowable Emission Rates

		VOC	9.81	35.60
		HF	3.47	2.80
		HCl	3.43	2.81
		Pb (5)	0.05	0.13
F-1	Raw Material Stockpiles (8)	PM	0.08	0.37
		PM <sub>10</sub>	0.04	0.18
		PM <sub>2.5</sub>	0.04	0.18

- (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> and PM<sub>2.5</sub>
  - PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter
  - PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
  - SO<sub>2</sub> - sulfur dioxide
  - NO<sub>x</sub> - 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
  - Pb - lead or lead compounds
  - Cr<sup>6+</sup> - hexavalent chromium
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Lead emissions are included in the total hourly and annual PM/PM<sub>10</sub> emission rates.
- (6) Hexavalent chromium emissions are included in the total hourly and annual PM/PM<sub>10</sub> emission rates.
- (7) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.
- (8) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: November 21, 2017