

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 20688

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				
1	Flash Calciner Bag Filter	PM <sub>10</sub>	0.06	0.26
		NO <sub>x</sub>	0.10	0.45
		SO <sub>2</sub>	<0.01	<0.01
		CO	0.09	0.38
		VOC	0.01	0.02
5A	Kiln No.1	PM <sub>10</sub>	0.07	0.33
		NO <sub>x</sub>	0.98	4.29
		SO <sub>2</sub>	0.01	0.03
		CO	0.82	3.61
		VOC	0.05	0.24
5B	Kiln No. 2	PM <sub>10</sub>	0.07	0.33
		NO <sub>x</sub>	0.98	4.29
		SO <sub>2</sub>	0.01	0.03
		CO	0.82	3.61
		VOC	0.05	0.24
5C	Kiln No. 3	PM <sub>10</sub>	0.15	0.68
		NO <sub>x</sub>	0.69	3.01
		SO <sub>2</sub>	<0.01	0.02
		CO	0.58	2.52
		VOC	0.04	0.17
5C-1	Kiln No. 3 Cooling Air Stack	PM <sub>10</sub>	0.15	0.68
5D	Kiln No. 4	PM <sub>10</sub>	0.05	0.20
		NO <sub>x</sub>	0.59	2.58
		SO <sub>2</sub>	0.01	0.02
		CO	0.50	2.16
		VOC	0.03	0.14

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Emission *	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	
TPY				
5E	Kiln No. 5 (Direct Vent) (Indirect Vent)	PM <sub>10</sub>	0.09	0.39
		PM <sub>10</sub>	<0.01	<0.01
16A	Boiler No. 1 Stack	PM <sub>10</sub>	0.01	0.04
		NO <sub>x</sub>	0.13	0.58
		SO <sub>2</sub>	<0.01	<0.01
		CO	0.11	0.49
		VOC	0.01	0.03
16B	Boiler No. 2 Stack	PM <sub>10</sub>	<0.01	0.03
		NO <sub>x</sub>	0.10	0.43
		SO <sub>2</sub>	<0.01	<0.01
		CO	0.08	0.36
		VOC	0.01	0.02
17A	Hot Oil Heater No. 1 Stack	PM <sub>10</sub>	0.01	0.06
		NO <sub>x</sub>	0.18	0.77
		SO <sub>2</sub>	<0.01	<0.01
		CO	0.15	0.65
		VOC	0.01	0.04
17B	Hot Oil Heater No. 2 Stack	PM <sub>10</sub>	0.02	0.07
		NO <sub>x</sub>	0.20	0.86
		SO <sub>2</sub>	<0.01	<0.01
		CO	0.17	0.72
		VOC	0.01	0.05
18	Process Dryer Bag Filter	PM <sub>10</sub>	0.03	0.15
19	RH Dryer No. 1	PM <sub>10</sub>	0.01	0.02
		NO <sub>x</sub>	0.07	0.32
		SO <sub>2</sub>	<0.01	<0.01
		CO	0.06	0.27

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Emission * Point No. (1) TPY	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr	
		VOC	<0.01	0.02
20	RH Dryer No. 2 Fabric Filter	PM <sub>10</sub>	0.03	0.15
21	Micronizer Bag Filter	PM <sub>10</sub>	0.03	0.15
22	Vacuum System Bag Filter	PM <sub>10</sub>	0.17	0.26
FUG1	Warehouse Fugitives** (4)	PM <sub>10</sub>	2.31	1.45
FUG2	Kiln No. 3 Fugitives (4)	PM <sub>10</sub>	0.95	1.10

- (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<sub>10</sub> - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that particulate matter greater than 10 microns is emitted.  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
CO - carbon monoxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule and production:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

Maximum annual throughput of 2,400,000 pounds of alumina and hydrate (based on calcined weight).

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\*\* Warehouse fugitives consists of RH Dust Collector, BM Baghouse, and process fugitives

Dated November 22, 2002