

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 19296

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)	Emission Rates *	
			lb/hr	TPY**
1	Molecular Sieve Heater (11.72 MMBtu/hr fired duty)	CO	0.70	3.08
		NO <sub>x</sub>	1.18	5.13
		PM <sub>10</sub>	0.09	0.39
		SO <sub>2</sub>	0.17	0.73
		VOC	0.05	0.22
2	Regen. Heater (6.07 MMBtu/hr fired duty)	CO	0.36	1.60
		NO <sub>x</sub>	0.61	2.66
		PM <sub>10</sub>	0.05	0.20
		SO <sub>2</sub>	0.09	0.38
		VOC	0.03	0.10
3	No. 1 Boiler 95 MMBtu/hr	CO	5.70	
		NO <sub>x</sub>	11.40	
		PM <sub>10</sub>	0.71	
		SO <sub>2</sub>	1.33	
		VOC	0.40	
4	Sulfur Recovery Incinerator	CO	0.25	0.99
		H <sub>2</sub> S	0.01	0.01
		NO <sub>x</sub>	0.15	0.59
		PM <sub>10</sub>	0.03	0.09
		SO <sub>2</sub>	0.43	1.87
		VOC	0.02	0.07
5	Flare	CO	12.10	22.11
		NH <sub>3</sub>	0.02	0.07
		NO <sub>x</sub>	5.76	7.27
		SO <sub>2</sub>	0.47	2.06
		VOC	3.51	17.13

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			lb/hr	TPY**
5	Flare MSS	CO	70.79	3.14
		H <sub>2</sub> S	1.31	0.05
		NH <sub>3</sub>	4.33	0.04
		NO <sub>x</sub>	26.65	4.60
		SO <sub>2</sub>	123.2	3.38
		VOC	7.29	0.49
7	Cooling Tower	VOC	1.32	5.78
8	Butylene Converter Steam Super Heater 3.1 MMBtu/hr	CO	0.25	1.10
		NO <sub>x</sub>	0.30	1.30
		PM <sub>10</sub>	0.02	0.10
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.08
BLR-21	No. 2 Boiler 81 MMBtu/hr	CO	5.79	
		NO <sub>x</sub>	2.84	
		PM <sub>10</sub>	0.62	
		SO <sub>2</sub>	1.13	
		VOC	0.45	
BLR-22	No. 3 Boiler 81 MMBtu/hr	CO	5.79	
		NO <sub>x</sub>	2.84	
		PM <sub>10</sub>	0.62	
		SO <sub>2</sub>	1.13	
		VOC	0.45	
3, BLR-21, and BLR-22	No. 1, 2, and 3 Boilers Combined Annual ***	CO		39.48
		NO <sub>x</sub>		42.98
		PM <sub>10</sub>		3.87
		SO <sub>2</sub>		8.31
		VOC		2.94
FUG-6	Process Fugitives (4)	VOC	9.22	40.38
FUG-HT	PBR Fugitives (4)(5)	VOC	0.81	3.55

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**

- (1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
- (3) CO - carbon monoxide  
NO<sub>x</sub> - total oxides of nitrogen  
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 no PM greater than 10 microns is emitted.  
SO<sub>2</sub> - sulfur dioxide  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
H<sub>2</sub>S - hydrogen sulfide  
NH<sub>3</sub> - ammonia
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Emissions authorized by Permit by Rule (PBR) Registration Number 83050

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

24 Hrs/day 7 Days/week 52 Weeks/year

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

\*\*\* Combined annual limits were calculated based upon all three boilers operating at maximum firing rates for 2,160 hours per year (hrs/yr) plus EPN 3, and either BLR-21 or BLR-22 firing at 48 MMBtu/hr each for 6,600 hrs/yr. A year is defined as January through December.

Dated\_