

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 390/PSD-TX-861M1

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) lb/hr	<u>Emission Rates *</u> TPY**	
H-15	No. 1 Hydrotreater Reboiler Heater (32.7 MMBtu/hr) (5)	VOC	0.13	0.57
		NO <sub>x</sub>	1.48	6.45
		SO <sub>2</sub>	1.23	1.62
		PM <sub>10</sub>	0.35	1.53
		CO	0.92	4.01
H-18	No. 1 Reformer Charge Heater (248.0 MMBtu/hr) (5)	VOC	0.98	4.26
		NO <sub>x</sub>	12.40	54.32
		SO <sub>2</sub>	9.33	12.26
		PM <sub>10</sub>	2.64	11.56
		CO	6.95	30.42
H-34	No. 1 Reformer Stabilizer Reboiler Heater (20.0 MMBtu/hr) (5)	VOC	0.08	0.4
		NO <sub>x</sub>	2.40	10.5
		SO <sub>2</sub>	0.75	1.0
		PM <sub>10</sub>	0.20	0.9
		CO	0.56	2.5
H-45	No. 1 Hydrotreater Charge Heater (63.4 MMBtu/hr) (5)	VOC	0.25	1.09
		NO <sub>x</sub>	2.86	12.49
		SO <sub>2</sub>	2.39	3.14
		PM <sub>10</sub>	0.68	2.96
		CO	1.78	7.78
H-46	No. 1 Interheater (147.2 MMBtu/hr) (5)	VOC	0.58	2.53
		NO <sub>x</sub>	7.36	32.24
		SO <sub>2</sub>	5.54	7.28
		PM <sub>10</sub>	1.57	6.86
		CO	4.13	18.06

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3) lb/hr	<u>Emission Rates *</u>	
			TPY**	
H-54	No. 1 Reformer Stabilizer Reboiler Heater (45.7 MMBtu/hr) (5)	VOC	0.18	0.79
		NO <sub>x</sub>	2.06	9.01
		SO <sub>2</sub>	1.72	2.26
		PM <sub>10</sub>	0.49	2.14
		CO	1.28	5.61
V-18	No. 1 Reformer Regeneration Vent	CO	3.45	15.11
		Cl <sub>2</sub>	0.30	0.80
F-8	No. 1 Hydrotreater Fugitives (4)	VOC	3.85	16.87
F-10	No. 1 Reformer Fugitives (4)	VOC	10.37	45.42

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

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

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

Hrs/year 8,760

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Dated\_\_\_\_\_