

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 49246

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**
1-102B	Drier Regenerator Heater (4,380 hours per year)	CO	1.33	2.92
		NO <sub>x</sub>	1.59	3.48
		PM <sub>10</sub>	0.12	0.26
		SO <sub>2</sub>	0.01	0.02
		VOC	0.09	0.19
1-103B	Converter Regenerator Heater (2,592 hours per year)	CO	0.21	0.27
		NO <sub>x</sub>	0.25	0.33
		PM <sub>10</sub>	0.02	0.02
		SO <sub>2</sub>	0.01	0.01
		VOC	0.01	0.02
1-105A	Main Flare (7) (Normal Operation and Pilot Fuel Only and Annual Start-up, Shutdown and Maintenance Only)	CO	839.21	58.60
		H <sub>2</sub> S	0.49	0.03
		NO <sub>x</sub>	164.69	11.50
		SO <sub>2</sub>	46.35	2.77
		VOC	751.90	44.88
	(Start-up, Shutdown, and Maintenance Operation Hourly Only) (6) (7)	CO	447.00	
		H <sub>2</sub> S	0.27	
		NO <sub>x</sub>	87.70	
		SO <sub>2</sub>	24.00	
		VOC	670.00	
137-F	Wash Oil Tank	VOC	0.01	0.01
141-F	DEA Tank	VOC	0.01	0.01
179-F/797F	Diesel Tank	VOC	0.21	0.01

A-206	Acetylene Converter Vent	VOC	0.59	0.01
ANA-VENT	Analyzer Vents	VOC	0.23	0.87
BLOW-VENT	Blow down Vents (5)	VOC	4.94	0.98
CV-1	Decoking Vents from Ethylene Furnaces A-H	CO PM <sub>10</sub>	153.96 0.88	9.52 0.05
F-1-101U	Main Cooling Tower	PM <sub>10</sub> VOC	0.01 6.90	0.01
F-ABCG	Ethylene Furnaces A, B, C, and G, and Waste Heat Boiler A	CO NO <sub>x</sub> PM <sub>10</sub> SO <sub>2</sub> VOC	101.81 78.92 16.78 1.33 12.15	290.59 225.27
F-DEFH	Ethylene Furnaces D, E, F, and H, and Waste Heat Boiler B	CO NO <sub>x</sub> PM <sub>10</sub> SO <sub>2</sub> VOC	65.00 78.92 16.78 1.33 12.15	185.51 225.27
F-1-GB	Wastewater Basins	VOC	6.75	1.23
M-102A	Wash Oil Tank	VOC	0.19	0.01
MAINT-METER	Meter Calibration Vents	VOC	0.01	0.01
T-142F	Spent DEA Tank	VOC	0.06	0.25
PLANT	Process Fugitives (4)	VOC	22.43	98.70

(1) Emission point identification - either specific equipment designation or emission point number

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from a plot plan.

- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
- (3) CO - carbon monoxide  
H<sub>2</sub>S - hydrogen sulfide  
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 particulate matter greater than 10 microns is emitted.  
SO<sub>2</sub> - sulfur dioxide  
VOC - volatile organic compounds as defined in the Title 30 Texas Administrative Code § 101.1.
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) The FIN/EPN (102C-, 116J-, 117J-, 157F-, and 210F-) BLOW represent the normal operation emission values from EPN BLOW-VENT. Start-up, shutdown, and maintenance (SSM) emissions are not authorized from this EPN.
- (6) The SSM hourly emissions are shown and annual SSM emissions are already shown from this flare.
- (7) Emissions listed from the Main Flare are associated with this permit only.

\* 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.

Dated October 21, 2005