

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 18838 and PSD-TX-843

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**
AH-PXP-1N	Analyzer Vent	VOC	0.01	0.01
AH-PXP-1S	Analyzer Vent	VOC	0.01	0.01
DG-1	Aromatics Degreaser No. 1	VOC	0.15	0.65
DG-2	Aromatics Degreaser No. 2	VOC	0.15	0.65
DG-3	Aromatics Degreaser No. 3	VOC	0.15	0.65
DG-5	Aromatics Degreaser No. 5	VOC	0.15	0.65
EH-31	Heater B-301	CO	0.67	2.92
		NO <sub>x</sub>	0.79	3.48
		PM <sub>10</sub>	0.06	0.26
		SO <sub>2</sub>	0.01	0.02
		VOC	0.04	0.19
EH-37	No. 2 Lift Station Middle (330 hours per year)	CO	1.15	0.19
		NO <sub>x</sub>	1.75	0.29
		PM <sub>10</sub>	0.01	0.01
		SO <sub>2</sub>	0.01	0.01
		VOC	0.25	0.04
EH-37A	No. 2 Lift Station North (100 hours per year)	CO	1.26	0.06
		NO <sub>x</sub>	1.92	0.10
		PM <sub>10</sub>	0.01	0.01
		SO <sub>2</sub>	0.01	0.01
		VOC	0.27	0.02

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
EH-39	Emergency Fire Water Pump (26 hours per year)	CO	2.34	0.03
		NO <sub>x</sub>	10.85	0.14
		PM <sub>10</sub>	0.77	0.01
		SO <sub>2</sub>	0.72	0.01
		VOC 0.88	0.01	
EH-40	Emergency Fire Water Pump (26 hours per year)	CO	2.54	0.03
		NO <sub>x</sub>	11.78	0.15
		PM <sub>10</sub>	0.84	0.01
		SO <sub>2</sub>	0.78	0.01
		VOC 0.95	0.01	
EH-57	Emergency Fire Water Pump (26 hours per year)	CO	3.49	0.05
		NO <sub>x</sub>	16.18	0.21
		PM <sub>10</sub>	1.15	0.01
		SO <sub>2</sub>	1.07	0.01
		VOC 1.31	0.02	
EH-9201	Reboiler B-9201	CO	2.89	7.71
		NO <sub>x</sub> (7)	7.23	17.34
		PM <sub>10</sub> 0.72	1.93	
		SO <sub>2</sub>	0.09	0.23
		VOC	0.20	0.54
EH-9301	Heater B-9301	CO	1.79	5.52
		NO <sub>x</sub> (7)	4.48	12.42
		PM <sub>10</sub> 0.45	1.38	
		SO <sub>2</sub>	0.05	0.16
		VOC	0.25	0.77
EH-9400	Reboiler B-9400	CO	1.10	3.44
		NO <sub>x</sub> (7)	2.75	7.75
		PM <sub>10</sub> 0.28	0.86	
		SO <sub>2</sub> 0.03	0.10	
		VOC	0.15	0.48
EH-9401	Reboiler B-9401	CO	6.13	23.21

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			lb/hr	TPY**
		NO <sub>x</sub> (7)	15.32	46.43
		PM <sub>10</sub> 1.53	5.80	
		SO <sub>2</sub>	0.18	0.69
		VOC	0.43	1.64
EH-9402	Reboiler B-9402	CO	1.12	2.63
		NO <sub>x</sub> (7)	2.79	5.91
		PM <sub>10</sub> 0.28	0.66	
		SO <sub>2</sub>	0.03	0.08
		VOC	0.16	0.37
EH-9601	Flare Paraxylene Unit (Normal Operation Only)	CO	1.57	6.86
		NO <sub>x</sub>	0.31	1.35
		SO <sub>2</sub>	0.02	0.08
		VOC 0.02	0.08	
	Maintenance Operation Only (460 hours per year)	CO	52.68	12.10
		NO <sub>x</sub>	10.34	2.37
		SO <sub>2</sub> 1.09	0.25	
		VOC 15.99	3.67	
EH-9602	Wharf Loading VCS	CO	2.30	5.04
		NO <sub>x</sub> 7.40	16.21	
		VOC 6.51	4.03	
EH-9603	Wharf Tank Farm Thermal Oxidizer	CO	0.35	1.55
		NO <sub>x</sub>	0.20	0.88
		PM <sub>10</sub>	0.26	1.14
		SO <sub>2</sub>	0.01	0.01
		VOC 0.86	3.48	
EH-9604	Refinery Tank Farm Thermal Oxidizer	CO	0.12	0.53
		NO <sub>x</sub>	0.20	0.88
		PM <sub>10</sub>	0.10	0.44
		SO <sub>2</sub>	0.01	0.01
		VOC 0.31	1.34	
EH-9616	Emergency Fire Water Pump	CO	3.65	0.05

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY**
	(876 hours per year)	NO <sub>x</sub>	16.93	0.22
		PM <sub>10</sub>	1.20	0.02
		SO <sub>2</sub>	1.12	0.01
		VOC	1.37	0.02
EM-2	Cooling Tower No. 2	VOC	0.63	2.76
EM-37	Carbon Adsorption System	VOC (5)	4.30	0.01
		VOC (6) (8)	0.41	0.12
EM-38	Carbon Adsorption System	VOC (5)	4.30	0.01
		VOC (6) (8)	0.41	0.12
EM-9601	Cooling Tower M-9601	VOC	0.50	2.21
ET-4	Sulfuric Acid Storage Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
ET-34	Reformate Storage Tank	VOC	0.81	1.05
ET-79	Sulfuric Acid Storage Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
ET-1201	Diesel Storage Tank	VOC	0.26	0.01
ET-9621	Diesel Storage Tank	VOC	0.26	0.01
EF-3	Process Fugitives (4)	VOC	0.59	2.56
EF-4	Process Fugitives (4)	VOC	0.15	0.68
EF-6	Process Fugitives (4)	VOC	0.27	1.19
EF-9	Process Fugitives (4)	VOC	1.35	5.90
EF-10	Process Fugitives (4)	VOC	0.26	1.12
EF-11	Process Fugitives (4)	VOC	0.06	0.26

EF-17	Process Fugitives (4)	VOC	0.28	1.24
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- (1) Emission point identification - either specific equipment designated or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) CO - carbon monoxide  
H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
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
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Four hours per year from Emission Point Nos. (EPNs) EM-37 and EM-38 is allowed.
- (6) Emission allowables shown for EPNs EM-37 and EM-38 do not emit at the same time during planned maintenance activities.
- (7) PSD-TX-843 pollutant
- (8) 568 hours per rolling calendar year

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

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

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

Dated October 5, 2006