

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 2925

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
TF-01	Step I-Flare Stack	VOC	4.06	11.46
		NO <sub>x</sub>	1.53	2.75
		CO	7.79	18.40
		SO <sub>2</sub>	0.42	1.31
		PM <sub>10</sub>	0.01	0.01
		H <sub>2</sub> S	0.01	0.01
TF-02	Topping Column Vent	VOC	0.04	0.15
TF-05	Hydrogenation and Step II Degasser Vent	VOC	2.90	1.13
TF-07	Concentrator Column Vent	VOC	0.30	1.30
TF-08	Reactor/Refining Train Vent	VOC	0.28	1.22
		CO	1.01	4.40
TF-09	THF Tank Farm Vent	VOC	18.62	2.93
TF-11	Crude BYD Storage Tank	VOC	3.38	1.22
TF-15	24-hour Tank	VOC	14.80	0.23
TF-21	Hold Tank Vent	VOC	3.12	0.68
TF-22	Refined BYD Storage (6)	VOC	0.32	0.14
TF-23A	Crude BDO Tank A	VOC	1.16	0.45
TF-23B	Refined BDO Tank B	VOC	0.07	0.01
TF-23C	Refined BDO Tank C	VOC	0.07	0.01

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TF-23D	Refined BDO Tank D	VOC	0.07	0.01
TF-23E	Desalted BDO Tank E	VOC	0.17	0.10
TF-23F	Concentrated BDO Tank F	VOC	0.17	0.08
TF-25	BDO Refining Vent	VOC	0.05	0.22
TF-26	Fugitives (5)	VOC	3.57	15.63
		IOC-U	0.01	0.01
		CO	0.01	0.01
TF-26L	Loading	VOC	16.69	3.67
TF-27	Wastewater Ponds	VOC	5.97	22.30
TF-28	THF Tank	VOC	0.40	0.98
TF-29	Cooling Tower	VOC	0.63	2.76
		PM <sub>10</sub>	2.30	7.71
TF-30	Tank TF-30T	VOC	0.27	0.10
TF-33	BYD, BDO Loading	VOC	0.02	0.01
TF-51	Intermediates Storage No. 1	VOC	0.13	0.01
TF-52	Intermediates Storage No. 2	VOC	0.13	0.01
TF-53	Intermediates Storage No. 3	VOC	0.13	0.01
TF-54	Intermediates Storage No. 4	VOC	0.13	0.01
TF-TKBRINE	Ethylene Glycol Tank	VOC	0.01	0.01
TF-Diesel	Diesel Tank	VOC	0.03	0.01
TF-TKAAT	Aldrich Accumulation Tank	VOC	0.01	0.01
TF-TKFST	Formaldehyde Fume Scrubber Tank	VOC	0.05	0.01
TF-TKSAT	Step 1 Sample Tank	VOC	0.01	0.01
TF-CAUSTIC	Caustic Tank	NaOH	0.01	0.01

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MSS Activities				
THF-MSS ATM	THF MSS Emissions ATM	VOC	97.17	2.32
		Sodium Bicarbonate	0.01	0.01
		Sodium Hydroxide	0.01	0.01
		Sulfuric Acid	0.01	0.01
		Ammonia	20.47	0.25
		NO <sub>x</sub>	4.07	1.95
		CO	3.14	0.50
		SO <sub>2</sub>	0.40	0.14
TF-01 MSS	Flare Stack-MSS	VOC	14.78	0.54
		Sodium Formate	0.01	0.01
		Phosphine	0.01	0.01
		Arsine	0.01	0.01
		Sulfur	0.01	0.01
		H <sub>2</sub> S	0.01	0.01
		NO <sub>x</sub>	2.12	0.07
		CO	10.78	0.34
THF-MSS TANK CD	THF MSS Tank Related Emissions at Control Device	VOC	2.90	0.01
		NO <sub>x</sub>	0.17	0.01
		CO	1.46	0.01
TF-21 MSS	Hold Tank Vent - MSS	VOC	0.01	0.06
THF-EFMSS	External Filtration System	VOC	0.02	0.01

- (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 Title 30 Texas Administrative Code § 101.1  
IOC-U - inorganic compounds (unspeciated)  
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NO <sub>x</sub>	- total oxides of nitrogen
SO <sub>2</sub>	- sulfur dioxide
PM <sub>10</sub>	- total particulate matter (PM) equal to or less than 10 microns in diameter
CO	- carbon monoxide
H <sub>2</sub> S	- hydrogen sulfide
NaOH	- sodium hydroxide

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Total hourly maximum fill rates and annual throughput cumulative for Tanks TF-02T, TF-04T and TF-05T shall not exceed 36,000 gallons per hour and 51,249,000 gallons per year.

Date: July 25, 2013