

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 17392

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)
SW-1	Flare (16)	VOC	0.50	0.06
		NO <sub>x</sub>	0.32	0.93
		HCN	0.58	1.81
		NH <sub>3</sub>	0.06	0.04
		CO	1.14	3.87
		SO <sub>2</sub>	0.01	0.01
SW-6	Tank 90069 (Din/D-lim)	VOC (12, 13)	0.88	0.01
SW-7	Tank 90070 (DIB)	VOC (11)	8.53	0.72
SW-8	Tank 12065 (Weigh Tank)	VOC (11, 12, 13)	1.60	0.23
SW-10	Tank 91346 (81-R)	VOC (10)	1.47	0.23
SW-12	Tank 12122 (Aqua NH <sub>3</sub> )	Ammonium Hydroxide	9.28	0.97
SW-13	Tank 91009 (Pro-Tet)	VOC (14)	10.80	1.25
SW-14	Tank 90480 (Pro-Tet)	VOC (14)	10.80	1.25
SW-16	Tank 12126 (Aqua Salt)	NH <sub>3</sub>	1.36	0.30
		Ammonium Sulfate	0.34	0.07
SW-17	Tank 90022 (Crude 81-R)	VOC (10)	1.35	0.17
SW-22	Tank 91007 (Crude 81-R)	VOC (10)	1.44	0.18
SW-27	Fugitives (6)	VOC	0.53	2.31
		HCN	0.22	0.95
		NH <sub>3</sub>	0.10	0.42

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SW-28	Tank 12223 (Dist. TOA)	VOC (8)	1.33	0.06
SW-29	Drumming Station	VOC (7, 8, 9, 10, 15)	3.57	0.18
SW-30	Loading Emissions	VOC (7, 8, 9, 10, 15)	0.95	0.30
SW-34	1,000 Gallon Vacuum Jet	VOC (10)	2.93	0.68
SW-35	3,000 Gallon Vacuum Jet	VOC (10)	1.17	4.68
SW-36	Tank 91010 (Distilled 81-R)	VOC (10)	1.47	0.24
SW-38	Hot Well	VOC (10)	0.01	0.01

**Maintenance, Startup, and Shutdown (MSS)**

SW_MSSTK	Fixed Roof Tank MSS	VOC	0.81	0.02
SW_MSSPH	Pump and Heat Exchanger MSS	VOC	0.16	0.01
		NH <sub>3</sub>	0.69	0.02
		Sulfuric Acid	0.01	0.01
SW_DEGAS	Equipment Degassing	VOC	0.21	0.01
SW_MISCMSS	Fugitive Component, Pipe Clearing, and Instrument Maintenance	VOC	1.29	0.01
		NH <sub>3</sub>	0.09	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  
 NO<sub>x</sub> - total oxides of nitrogen  
 SO<sub>2</sub> - sulfur dioxide  
 CO - carbon monoxide  
 HCN - hydrogen cyanide  
 NH<sub>3</sub> - anhydrous ammonia
- (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.

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- (6) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (7) MD - methane diamine
- (8) TOA - t-octylamine
- (9) JMT - t-alkyl primary amines
- (10) 81-R - t-alkyl amines (C12-C14)
- (11) DIB - di-isobutylene
- (12) Dinonene
- (13) D-limonene
- (14) Propylene tetramer
- (15) Aromatic 150
- (16) Includes MSS emissions.

Dated February 1, 2012