

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 3836

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**
Storage Tank Area				
T-202	Tank	NaOH	0.05	0.01
T-207	Tank	VOC	0.71	0.02
T-401	Tank	VOC	0.01	0.01
T-403	Tank	VOC	0.01	0.01
T-404	Tank	VOC	0.03	0.01
T-405	Tank	VOC	0.11	0.01
T-418	Tank	VOC	0.09	0.01
T-603	Tank	VOC	0.87	0.23
T-604	Tank	VOC	3.97	0.06
Z-703	Scrubber	HCl	0.02	0.01
		VOC	0.32	0.06
Z-709	Scrubber	VOC	0.13	0.01
Z-711	Scrubber	H <sub>2</sub> S	0.01	0.01
		VOC	0.03	0.01
STOR-FUG	Fugitives (4)	VOC	2.00	8.76
Tank Farm Area				

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
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Plant Utilities Area				
B-601	Utility Boiler (6)	CO	1.09	4.77
		NO <sub>x</sub>	0.39	1.72
		PM <sub>10</sub>	0.28	1.21
		SO <sub>2</sub>	0.05	0.24
		VOC	0.20	0.87
B-602	Utility Boiler (6)	CO	1.09	4.77
		NO <sub>x</sub>	0.39	1.72
		PM <sub>10</sub>	0.28	1.21
		SO <sub>2</sub>	0.05	0.24
		VOC	0.20	0.87
H-602	Heater	CO	0.59	2.58
		NO <sub>x</sub>	0.21	0.93
		PM <sub>10</sub>	0.15	0.65
		SO <sub>2</sub>	0.03	0.13
		VOC	0.11	0.47
G-601	Standby Generator (5)	CO	3.84	0.10
		NO <sub>x</sub>	17.83	0.46
		PM <sub>10</sub>	1.27	0.03
		SO <sub>2</sub>	1.18	0.03
		VOC	1.45	0.04
FWP	Fire Water Pumps (5)	CO	6.51	0.54
		NO <sub>x</sub>	30.23	2.52
		PM <sub>10</sub>	2.15	0.18
		SO <sub>2</sub>	2.00	0.17
		VOC	2.45	0.21
V-605	Tank	VOC	0.01	0.01
FUG-XP	Fugitives (4) XP-200 Process Area	VOC	0.03	0.12

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UTIL-FUG	Fugitives (4) Utilities Area	VOC	0.11	0.50
Plant 3 - Intermediates Chemical Processing				
T-350	Tank	VOC	0.01	0.01
PL3-FUG	Fugitives (4) Plant 3 Area	VOC	0.24	1.03
Z-715	Oxide Scrubber	EO	0.75	0.14
		PO	0.95	0.17
Plant 2 - Amine Condensation Polymerization Area				
T-253	Tank	VOC	0.07	0.01
V-023	Reactor Vent	VOC	3.27	0.01
V-024	Tank	VOC	1.16	0.01
V-025	Tank	VOC	1.16	0.01
Z-704	Caustic Scrubber	VOC	0.32	0.01
Z-705	Tank T-250 Scrubber	VOC	0.06	0.01
Z-707	V-022 Scrubber	NH <sub>3</sub>	0.02	0.01
		VOC	0.02	0.01
Z-708	Scrubber	NH <sub>3</sub>	0.02	0.01
		VOC	0.25	0.01
Z-712	Tank T-252 Scrubber	VOC	0.01	0.01

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		HCl	0.01	0.01
Z-713	Methyl Chloride Scrubber	CH <sub>3</sub> Cl	1.20	0.03
Z-714	Vapor Combustor	CO	7.98	3.58
		NO <sub>x</sub>	4.40	3.53
		VOC	26.92	4.01
		SO <sub>2</sub>	0.01	0.05
		HCl	0.01	0.01
		H <sub>2</sub> S	0.01	0.01
		PM <sub>10</sub> 0.05	0.23	
PL2-FUG	Fugitives (4) Plant 2 Area	VOC	0.49	2.16
CS2-FUG	Fugitives (4) Carbon Disulfide Drumming	CS <sub>2</sub>	0.01	0.01
<b>Plant 5 - Blending and Drumming</b>				
F-501	Filter Press	VOC	0.53	0.95
F-502	Filter Press	VOC	0.53	0.95
F-503	Sparkler Filter	VOC	0.01	0.01
PL5-FUG	Fugitives (4) Plant 5 Area	VOC	0.27	1.18
Loading	Loading (7)	VOC	5.57	2.04
<b>Plant 1</b>				
V-0113	Methyl Chloride Scrubber	Methyl chloride	3.00	0.10

Z-716	Tropylene Scrubber	Tropylene	3.00	0.01
Z-717	Scrubber for Tank V-0122	VOC	0.02	0.01
		NH <sub>3</sub>	0.01	0.01
PL1-FUG	Fugitives - Plant 1 Area	VOC	0.28	1.24
CWT	Cooling Water Towers	PM <sub>10</sub>	0.33	1.47

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources use area name or fugitive source name.
- (3)
  - NaOH - sodium hydroxide
  - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - HCl - hydrogen chloride
  - H<sub>2</sub>S - hydrogen sulfide
  - CO - carbon monoxide
  - 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
  - NH<sub>3</sub> - ammonia
  - CH<sub>3</sub>Cl - methyl chloride
  - CS<sub>2</sub> - carbon disulfide
  - EO - ethylene oxide
  - PO - propylene oxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Operated for emergency use and required maintenance only.
- (6) Total combined annual emissions from Emission Point Nos. B-601 and B-602 shall not exceed 8.34 tons per year (tpy) CO and 0.56 tpy VOC.
- (7) The loading emission rates will consist of emissions from drum loading, ipak loading, truck loading, and railcar loading.

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

Hrs/day \_\_\_\_\_ Days/week \_\_\_\_\_ Weeks/year \_\_\_\_\_ or Hrs/year 8,760

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

NOTE: The combined emissions of all sources of hazardous air pollutants (HAPS) at this site is limited to less than 10 tpy of any single HAP and less than 25 tpy of any combination of aggregate HAPS. Records will be maintained on-site to confirm that this condition is being met on a rolling 12-month basis.

Dated\_\_\_\_\_