

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 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*		
			#/hr	TPY	
Storage Tank Area					
T-101	Tank		VOC	2.44	0.038
T-102	Tank		VOC	8.85	0.167
T-103	Tank		VOC	0.18	0.005
T-104	Tank		VOC	<0.01	<0.01
T-105	Tank		VOC	8.28	0.08
T-106	Tank		VOC	3.45	0.04
T-107	Tank		VOC	0.012	<0.01
T-108	Tank		VOC	4.07	0.06
T-109	Tank		VOC	0.01	<0.01
T-111	Tank		VOC	<0.01	0.013
T-112	Tank		VOC	0.01	0.04
T-113	Tank		VOC	3.50	0.06
T-114	Tank		VOC	2.20	0.05
T-115	Tank		VOC	0.02	0.10
T-116	Tank		VOC	0.05	0.144
T-201	Tank		VOC	1.67	0.04

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
T-202		Tank	VOC	<0.01 <0.01
T-203		Tank	VOC	0.02 0.04
T-204		Tank	VOC	1.85 0.07
<b>Storage Tank Area (continued)</b>				
T-205		Tank	VOC	5.44 0.09
T-206		Tank	VOC	7.53 0.37
T-207		Tank	VOC	<0.01 <0.01
T-208		Tank	VOC	1.97 0.03
T-209		Tank	VOC	1.64 0.04
T-210		Tank	VOC	<0.01 <0.01
T-211		Tank	VOC	2.91 0.08
T-212		Tank	VOC	3.13 0.06
T-213		Tank	VOC	<0.01 0.01
T-215		Tank	VOC	13.53 0.24
T-216		Tank	VOC	0.01 0.05
T-217		Tank	VOC	0.05 0.11
T-218		Tank	VOC	0.021 <0.01
T-219		Tank	VOC	6.84 0.14
T-220		Tank	VOC	0.034 0.13
T-221		Tank	VOC	0.04 0.12
T-222		Tank	VOC	0.140 0.60

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			#/hr	TPY
T-301	Tank	VOC	<0.01	<0.01
T-302	Tank	VOC	0.21	<0.01
T-303	Tank	VOC	0.21	<0.01
T-304	Tank	VOC	0.08	0.112
T-305	Tank	VOC	0.05	0.12
T-306	Tank	VOC	2.56	0.09

**Storage Tank Area (continued)**

T-401	Tank	VOC	0.02	<0.01
T-402	Tank	VOC	<0.01	<0.01
T-403	Tank	VOC	<0.01	<0.01
T-404	Tank	VOC	0.79	0.04
T-405	Tank	VOC	0.30	0.02
T-406	Tank	VOC	1.94	0.05
T-407	Tank	VOC	3.81	0.12
T-408	Tank	VOC	1.84	0.16
T-409	Tank	VOC	<0.01	<0.01
T-410	Tank	VOC	1.15	0.04
T-411	Tank	VOC	<0.01	<0.01
T-412	Tank	VOC	13.95	0.11
T-413	Tank	VOC	3.90	0.04
T-414	Tank	VOC	<0.01	<0.01

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			#/hr	TPY
T-415	Tank	VOC	<0.01	<0.01
T-416	Tank	VOC	0.15	<0.01
T-417	Tank	VOC	3.91	0.04
T-418	Tank	VOC	0.09	<0.01
T-419	Tank	VOC	<0.01	<0.01
T-420	Tank	VOC	<0.01	<0.01
T-501	Tank	VOC	3.90	0.08
T-502	Tank	VOC	8.20	0.21
T-503	Tank	VOC	<0.01	<0.01

**Storage Tank Area (continued)**

T-504	Tank	VOC	8.42	0.12
T-505	Tank	VOC	4.65	0.06
T-506	Tank	VOC	<0.01	<0.01
T-507	Tank	VOC	3.75	0.04
T-508	Tank	VOC	2.77	0.05
T-509	Tank	VOC	8.45	0.31
T-510	Tank	VOC	3.94	0.15
T-511	Tank	VOC	4.00	0.06
T-512	Tank	VOC	3.20	0.09
T-513	Tank	VOC	3.71	0.08
T-514	Tank	VOC	3.91	0.15

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			#/hr	TPY
T-515	Tank	VOC	3.68	0.06
T-516	Tank	VOC	3.81	0.04
T-517	Tank	VOC	3.93	0.09
T-518	Tank	VOC	3.95	0.04
T-519	Tank	VOC	<0.01	<0.01
T-520	Tank	VOC	<0.01	<0.01
T-521	Tank	VOC	<0.01	<0.01
T-522	Tank	VOC	3.15	0.04
T-601	Tank	VOC	3.91	0.09
T-602	Tank	VOC	1.26	0.06
T-603	Tank	VOC	6.31	0.17
T-604	Tank	VOC	3.16	0.18
<b>Storage Tank Area (continued)</b>				
T-605	Tank	VOC	3.85	0.06
T-606	Tank	VOC	3.78	0.05
T-607	Tank	VOC	0.02	<0.01
T-608	Tank	VOC	4.74	0.07
Z-703	Scrubber	HCl	<0.01	<0.01
		VOC	<0.01	<0.01
Z-709	Scrubber	VOC	0.17	0.02
Z-710	Scrubber	VOC	0.16	0.04

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			#/hr	TPY
Z-711		Scrubber	H2S	<0.01
			VOC	<0.01
STOR		Process Fugitives (4)	VOC	1.80
				7.92

**Plant Utilities Area**  
**Burning No. 2 Fuel Oil**

B-601V	Boiler (6) (37.5 MM BTU/hr)	CO	1.34	0.48
		NOx	5.84	2.10
		PM10	0.54	0.19
		SO2	6.87	2.47
		SO3	0.10	0.04
		VOC	0.10	0.04
B-602V	Boiler (6) (37.5 MM BTU/hr)	CO	1.34	0.48
		NOx	5.84	2.10
		PM10	0.54	0.19
		SO2	6.87	2.47
		SO3	0.10	0.04
		VOC	0.10	0.04

**Burning Natural Gas**

B-601V	Boiler (37.5 MM BTU/hr)	CO	1.23	5.37
		NOx	5.25	23.00
		PM10	0.17	0.79
		SO2	0.02	0.09
		VOC	0.10	0.44

**Plant Utilities Area**  
**Burning Natural Gas (continued)**

B-602V	Boiler (37.5 MM BTU/hr)	CO	1.23	5.37
		NOx	5.25	23.00
		PM10	0.17	0.79
		SO2	0.02	0.09
		VOC	0.10	0.44
H-601V	Heater (11.0 MM BTU/hr)	CO	0.36	1.58
		NOx	1.54	6.75

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*		
			#/hr	TPY	
			PM10	0.05	0.23
			SO2	0.01	0.03
			VOC	0.03	0.13
T-700	API Covered Separator		VOC	0.82	3.60
G-601	Standby Generator		CO	7.10	0.09
			NOx	11.70	0.15
			PM10	0.40	<0.01
			SO2	0.86	0.01
			VOC	1.20	0.02
FWP	Fire Water Pumps		CO	38.50	0.50
			NOx	63.40	0.83
			PM10	2.20	0.03
			SO2	4.60	0.06
			VOC	6.30	0.08
T-349	Tank		VOC	0.02	<0.01
T-355	Tank		VOC	0.10	0.43
T-356	Tank		VOC	5.99	0.06
T-549	Tank		VOC	4.97	0.10
V-605	Tank		VOC	<0.01	<0.01
T-701	Tank		VOC	0.97	0.03
UTIL-FUG	Process Fugitives (4)		VOC	0.13	0.57

# AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*		
			#/hr	TPY	
Plant 3 - Intermediates Chemical Processing					
DP-3		Drum Loading		VOC	0.602.20
T-350		Tank		VOC	<0.01<0.01
TP-804		Truck Loading		VOC	1.680.95
V-311		Tank		VOC	2.490.02
V-312		Tank		CH2O	<0.01<0.01
V-301V		Emergency Vent		VOC	EMERGENCY USE ONLY
PL3		Process Fugitives (4)		VOC	0.703.00
HW-300		Hot Well 300 (7)		VOC	5.345.12

## Plant 2 - Amine Condensation Polymerization Area

DP1, DP2	Drum Loading	VOC	1.21	2.20
HW-200	Hot Well 200 (5)	VOC	26.50	1.38
		HCl	0.03	<0.01
HW-201	Hot Well 201 (5)	VOC	2.71	7.89
T-253	Tank	VOC	0.08	<0.01
T-254	Tank	VOC	0.01	0.05
T-255	Tank	VOC	2.20	0.01
T-256	Tank	VOC	<0.01	<0.01
T-260	Tank	VOC	<0.01	<0.01
T-261	Tank	VOC	1.22	0.03
TP-816	Tank Truck Loading	Solvent 14	1.68	1.79



AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*		
			#/hr	TPY	
V-023		Reactor Vent		VOC	0.01 <0.01
V-024		Tank		VOC	0.88 <0.01
V-025		Tank		VOC	0.88 <0.01
<b>Plant 2 - Amine Condensation Polymerization Area (continued)</b>					
V-206V		Process/Emergency Vent		VOC	<0.01 <0.01
Z-104		Caustic Scrubber		H2S VOC	<0.01 <0.01 0.21 0.21
Z-705		Tank T-250 Scrubber		VOC	<0.01 <0.01
Z-707		V-022 Scrubber		NH3	0.12 <0.01
Z-708		Scrubber		NH3 VOC	0.05 <0.01 <0.01 <0.01
Z-712		Tank T-252 Scrubber		VOC HCl	<0.01 <0.01 <0.01 <0.01
Z-713		Methyl Chloride Scrubber		CH3Cl	2.65 0.14
Z-714		Flare		CO NOx VOC	0.91 3.99 0.17 0.75 0.18 0.26
PL2		Process Fugitives (4)		H2S VOC	0.03 0.13 1.75 7.67
CS2-FUG		CS2 Drum Fugitives		CS2	0.01 <0.001

**Plant 5 - Blending and Drumming**

F-501	Filter Press	VOC	0.53	0.32
F-502	Filter Press	VOC	0.53	0.32

# AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*		
			#/hr	TPY	
F-503		Sparkler Filter		VOC	<0.01 <0.01
PT-1		Portable Tank Filling		VOC	1.61 2.93
V-50		Tank		VOC	3.28 0.45
V-51		Tank		VOC	4.84 0.300
V-52		Tank		VOC	0.93 0.23
V-53		Tank		VOC	0.34 0.10
V-54		Tank		VOC	0.50 0.06

## Plant 5 - Blending and Drumming (continued)

Z-501/502	Drum Loading		VOC	4.82	5.13
Z-701V	Vacuum Vent Scrubber		VOC	12.54	3.14
			HCl	<0.01	<0.01
PL5-FUG	Fugitives (4)		VOC	0.28	1.24

- (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) NH3 - ammonia  
CO - carbon monoxide  
HCl - hydrogen chloride  
H2S - hydrogen sulfide  
CH2O - formaldehyde  
CH3Cl - methyl chloride  
NOx - total oxides of nitrogen  
PM10 - particulate matter less than 10 microns  
SO2 - sulfur dioxide  
SO3 - sulfur trioxide  
VOC - volatile organic compounds as defined in General Rule 101.1  
CS2 - carbon disulfide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Each hot well will be removed from service as a final control device pursuant to Special Provision No. 49 and comply with Special Provisions No. 50 and 51.
- (6) Fuel oil at 0.18 weight percent sulfur for 30 days of firing.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY

(7) This source will be sent to flare, EPN Z-714, pursuant to Special Provision No. 35.

\* 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

Revised\_\_\_\_\_