

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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Permit No. 9868A/PSD-TX-102M4

## EMISSION CAP TABLE

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.

See Attachment I for Source Name and Emission Point Number Index.

## VOC EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	11072	10202
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	10979	10134
FCCU CO Boilers	1997	10778	9912
Engines	1998	8903	9756
Cooling Towers	1999	4938	9348
Wastewater (4)	2000	4750	8871
Tanks	2001	4606	8727
Truck and Rail Loading	2002	4473	8269
Fugitives (4)	2003	4158	7806
Incinerators	2004	3779	7180
Vents (56V1)	2005	3421	6624
	2006 (Final)	2584	6318

NO<sub>x</sub> EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	2082	4632
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	2014	4632
FCCU CO Boilers	1997	1957	4632
Engines	1998	1957	4632
Incinerators	1999	1801	4138
	2000	1693	3568
	2001	1638	3325

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2002	1589	3111
2003	1517	2798
2004	1518	2800
2005	1519	2809
2006 (Final)	1626	2907
SO <sub>2</sub> EMISSION CAP		

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	7128	12740
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	7004	12560
FCCU CO Boilers	1997	6880	12016
Engines	1998	6880	12017
Incinerators	1999	6866	11965
Sulfur Handling	2000	6849	11910
Fugitives (4)	2001	6849	11910
Wastewater (4)	2002	6849	11910
	2003	6849	11910
	2004	6850	11910
	2005	6850	11910
	2006 (Final)	6855	5200

## CO EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	1285	5305
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	1295	5305
FCCU CO Boilers	1997	1302	5305
Engines	1998	1302	5305
Incinerators	1999	1217	5275
	2000	1173	5020
	2001	1174	5025
	2002	1177	5000
	2003	1182	4965
	2004	1186	4980
	2005	1188	4990
	2006 (Final)	1264	5305

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## PM EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	271	1129
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	271	1129
FCCU CO Boilers	1997	271	1129
Engines	1998	271	1129
Incinerators	1999	267	1129
	2000	263	1129
	2001	263	1129
	2002	263	1129
	2003	263	1129
	2004	263	1129
	2005	263	1129
	2006 (Final)	284	1129

H<sub>2</sub>S EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	131	322
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	130	315
FCCU CO Boilers	1997	128	307
Incinerators	1998	128	303
Sulfur Handling	1999	112	236
Fugitives (4)	2000	105	203
Wastewater (4)	2001	103	196
Vent (32V1)	2002	102	192
Tank (3003)	2003	99	177
	2004	93	165
	2005	93	165
	2006 (Final)	47	138

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HCl EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares Fugitives (4)	1995 (Initial)	13	30
	1996	13	30
	1997	12	28
	1998	12	28
	1999	12	28
	2000	12	28
	2001	12	28
	2002	12	28
	2003	12	28
	2004	12	28
	2005	12	28
	2006 (Final)	12	28

NH<sub>3</sub> EMISSION CAP

Source Name	Year	lb/hr	TPY
Fugitives (4) Wastewater (4) Vent (32V1) Tank (3003)	1995 (Initial)	82	354
	1996	82	354
	1997	82	354
	1998	82	354
	1999	2	3
	2000	1	1
	2001	1	1
	2002	1	1
	2003	1	1
	2004	1	1
	2005	1	1
	2006 (Final)	1	1

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## HF EMISSION CAP

Source Name	Year	lb/hr	TPY
Fugitives (4)	1995 (Initial)	0.56	2.44
	1996	0.56	2.44
	1997	0.56	2.44
	1998	0.56	2.44
	1999	0.56	2.44
	2000	0.56	2.44
	2001	0.56	2.44
	2002	0.56	2.44
	2003	0.51	2.23
	2004	0.51	2.23
	2005	0.51	2.23
	2006 (Final)	0.51	2.23

## SPECIATED VOC EMISSION CAPS

## Benzene CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	40	78
Tanks	1996	38	75
Truck and Rail Loading	1997	35	68
Fugitives (4)	1998	35	67
Wastewater (4)	1999	21	64
	2000	12	41
	2001	12	40
	2002	12	40
	2003	12	39
	2004	11	38
	2005	10	35
	2006 (Final)	9	35

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Cyclohexane CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	828	317
Tanks	1996	827	317
Truck and Rail Loading	1997	813	268
Fugitives (4)	1998	308	223
Wastewater (4)	1999	105	211
	2000	87	170
	2001	87	169
	2002	87	169
	2003	86	167
	2004	79	159
	2005	78	154
	2006 (Final)	70	147

Ethylbenzene CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	15	61
Tanks	1996	15	61
Fugitives (4)	1997	15	61
Wastewater (4)	1998	14	60
	1999	13	55
	2000	12	50
	2001	12	49
	2002	12	49
	2003	12	49
	2004	9	38
	2005	9	38
	2006 (Final)	9	38

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## Hexane CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Flares	1995 (Initial)	1343	400
Tanks	1996	1343	399
Truck and Rail Loading	1997	1323	368
Fugitives (4)	1998	566	350
Wastewater (4)	1999	161	338
	2000	136	300
	2001	136	299
	2002	136	298
	2003	132	281
	2004	132	279
	2005	130	270
	2006 (Final)	129	269

## Toluene CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Flares	1995 (Initial)	60	110
Tanks	1996	59	106
Fugitives (4)	1997	58	102
Wastewater (4)	1998	58	101
	1999	22	97
	2000	19	87
	2001	19	86
	2002	18	84
	2003	18	84
	2004	18	83
	2005	17	77
	2006 (Final)	16	77

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Xylene CAP			
Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	15	67
Tanks	1996	14	63
Fugitives (4)	1997	14	63
Wastewater (4)	1998	13	63
	1999	13	60
	2000	10	51
	2001	10	50
	2002	10	48
	2003	10	48
	2004	9	47
	2005	9	47
	2006 (Final)	9	47

- (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 General Rule 101.1
  - NO<sub>x</sub> - total oxides of nitrogen
  - SO<sub>2</sub> - sulfur dioxide
  - PM - particulate matter
  - CO - carbon monoxide
  - H<sub>2</sub>S - hydrogen Sulfide
  - HCl - hydrogen Chloride
  - NH<sub>3</sub> - ammonia
  - HF - hydrogen Fluoride
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

\* 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\_\_\_\_

Dated \_\_\_\_\_