

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 9868A and 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)	11,071	10,202
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	10,978	10,134
FCCU CO Boilers	1997	10,776	9,912
Engines	1998	8,908	9,795
Cooling Towers	1999	4,941	9,374
Wastewater (4)	2000	4,399	7,396
Tanks	2001	4,229	7,140
Truck and Rail Loading	2002	4,068	6,718
Fugitives (4)	2003	3,760	6,320
Incinerators	2004	3,436	5,924
Vents (56V1)	2005	3,111	5,552
	2006 (Final)	2,329	5,082

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NO<sub>x</sub> EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	2,082	4,632
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	2,014	4,632
FCCU CO Boilers	1997	1,957	4,632
Engines	1998	1,957	4,632
Incinerators	1999	1,843	4,452
	2000	1,753	3,699
	2001	1,697	3,456
	2002	1,590	3,115
	2003	1,519	2,802
	2004	1,519	2,804
	2005	1,519	2,810
	2006 (Final)	1,626	2,908

NO<sub>x</sub> EMISSION SUB CAP FOR BOILERS 81B17 AND 81B18 (5)

EPNs	Year	lb/hr	TPY
81B17 and 81 B18	2002 (final)	68	57

SO<sub>2</sub> EMISSION CAP

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Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	7,128	12,740
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	7,004	12,560
FCCU CO Boilers	1997	6,880	12,016
Engines	1998	6,880	12,017
Incinerators	1999	6,877	12,015
Sulfur Handling	2000	6,850	11,934
Fugitives (4)	2001	6,850	11,934
Wastewater (4)	2002	6,847	11,927
	2003	6,847	11,927
	2004	6,848	11,928
	2005	6,848	11,929
	2006 (Final)	6,853	5,201

### CO EMISSION CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	1,285	5,305
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	1,295	5,305
FCCU CO Boilers	1997	1,302	5,305
Engines	1998	1,302	5,305
Incinerators	1999	1,260	5,305
	2000	1,204	4,758
	2001	1,206	4,765
	2002	1,164	4,642
	2003	1,168	4,606
	2004	1,173	4,610
	2005	1,174	4,618
	2006 (Final)	1,250	4,947

### PM EMISSION CAP

Source Name	Year	lb/hr	TPY
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Flares	1995 (Initial)	271	1,129
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	271	1,129
FCCU CO Boilers	1997	271	1,129
Engines	1998	271	1,129
Incinerators	1999	271	1,129
	2000	261	1,125
	2001	261	1,125
	2002	261	1,125
	2003	261	1,125
	2004	261	1,124
	2005	261	1,119
	2006 (Final)	261	1,111

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

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	128	307
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	126	299
FCCU CO Boilers	1997	125	292
Incinerators	1998	128	305
Sulfur Handling	1999	120	243
Fugitives (4)	2000	43	115
Wastewater (4)	2001	42	108
Vent (32V1)	2002	42	108
Tank (3003)	2003	42	108
	2004	37	103
	2005	38	104
	2006 (Final)	37	97

### HCl EMISSION CAP

Source Name	Year	lb/hr	TPY
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Flares	1995 (Initial)	13	30
Fugitives (4)	1996	13	30
	1997	12	28
	1998	12	28
	1999	12	28
	2000	5.7	25
	2001	5.7	25
	2002	5.7	25
	2003	5.7	25
	2004	5.7	25
	2005	5.7	25
	2006 (Final)	5.7	25

NH<sub>3</sub> EMISSION CAP

Source Name	Year	lb/hr	TPY
Fugitives (4)	1995 (Initial)	82	355
Wastewater (4)	1996	82	355
Vent (32V1)	1997	82	355
Tank (3003)	1998	82	355
	1999	5	7
	2000	2.0	5.4
	2001	2.0	5.4
	2002	2.0	5.4
	2003	2.0	5.5
	2004	2.0	5.5
	2005	2.0	5.5
	2006 (Final)	2.0	5.5

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

### 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	0.43	1.9
	2001	0.43	1.9
	2002	0.43	1.9
	2003	0.43	1.9
	2004	0.43	1.9
	2005	0.43	1.9
	2006 (Final)	0.43	1.9

### SPECIATED VOC EMISSION CAPS

#### Benzene CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	47	78
Tanks	1996	45	75
Truck and Rail Loading	1997	42	68
Fugitives (4)	1998	41	67
Wastewater (4)	1999	22	65
	2000	14	35
	2001	13	34
	2002	13	33
	2003	13	33
	2004	12	32
	2005	12	32
	2006 (Final)	11	31

#### Cyclohexane CAP

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Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	828	316
Tanks	1996	827	316
Truck and Rail Loading	1997	813	268
Fugitives (4)	1998	308	223
Wastewater (4)	1999	104	211
	2000	89	118
	2001	89	120
	2002	89	118
	2003	89	116
	2004	82	107
	2005	82	107
	2006 (Final)	74	95

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	1.8	6.8
	2002	1.8	6.7
	2003	1.8	6.7
	2004	1.7	6.6
	2005	1.7	6.6
	2006 (Final)	1.6	6.6

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Hexane CAP			
Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	1,353	400
Tanks	1996	1,353	399
Truck and Rail Loading	1997	1,333	368
Fugitives (4)	1998	576	350
Wastewater (4)	1999	163	341
	2000	111	141
	2001	112	144
	2002	111	140
	2003	112	121
	2004	112	119
	2005	112	119
	2006 (Final)	111	112

Toluene CAP			
Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	104	110
Tanks	1996	103	106
Fugitives (4)	1997	102	102
Wastewater (4)	1998	76	101
	1999	29	97
	2000	22	59
	2001	21	58
	2002	21	57
	2003	21	57
	2004	20	56
	2005	20	56
	2006 (Final)	19	51



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Xylene CAP			
Source Name	Year	lb/hr	TPY
Flares Tanks Fugitives (4) Wastewater (4)	1995 (Initial)	15	67
	1996	14	63
	1997	14	63
	1998	13	63
	1999	13	60
	2000	7.9	41
	2001	7.9	41
	2002	7.8	41
	2003	7.8	41
	2004	7.6	41
	2005	7.0	40
	2006 (Final)	6.9	40

- (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) 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  
PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
PM<sub>10</sub> - particulate matter 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.  
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

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emission rate.

- (5) The NO<sub>x</sub> emissions in this subcap are also included in the overall NO<sub>x</sub> cap.

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

Dated\_\_\_\_\_