

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
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Flexible 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)	11071	10202
Fired Units (Furnaces, Heaters, Boilers, etc.)	1996	10978	10134
FCCU CO Boilers	1997	10776	9912
Engines	1998	8908	9795
Cooling Towers	1999	4941	9374
Wastewater (4)	2000	4399	7396
Tanks	2001	4229	7140
Truck and Rail Loading	2002	4068	6718
Fugitives (4)	2003	3760	6320
Incinerators	2004	3110	5663
Vents (56V1)	2005	3024	5474
	2006 (Final)	2248	5003

NO_x 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	1843	4452
	2000	1753	3699
	2001	1697	3456

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2002	1590	3115
2003	1519	2802
2004	1513	2764
2005	1512	2770
2006 (Final)	1619	2868

NO_x EMISSION SUBCAP FOR BOILERS 81B17 AND 81B18 (5)

EPNs	Year	lb/hr	TPY
81B17 and 81 B18	2004	68	94
	2005 (final)	68	57

SO₂ 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	6877	12015
Sulfur Handling	2000	6850	11934
Fugitives (4)	2001	6850	11934
Wastewater (4)	2002	6847	11927
	2003	6847	11927
	2004	6845	11921
	2005	6845	11922
	2006 (Final)	6851	5194

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	1260	5305
	2000	1204	4758
	2001	1206	4765
	2002	1164	4642

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2003	1168	4606
2004	1166	4579
2005	1167	4587
2006 (Final)	1243	4916

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	271	1129
	2000	261	1125
	2001	261	1125
	2002	261	1125
	2003	261	1125
	2004	261	1125
	2005	261	1120
	2006 (Final)	261	1093

H₂S 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

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HCl EMISSION CAP

Source Name	Year	lb/hr	TPY
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

NH₃ 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
	2001		2.0
	2002		2.0
	2003		2.0
	2004		2.0
	2005		2.0
	2006 (Final)		2.0

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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	0.43	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

CHLORINE CAP (3/03)

Source Name	Year	lb/hr	TPY
Cooling Towers	2003	1.65	7.23
	2004 1.65	7.23	
	2005 1.65	7.23	
	2006 (final)	1.65	7.23

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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

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

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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			

Hexane CAP

Source Name	Year	lb/hr	TPY
Flares	1995 (Initial)	1353	400
Tanks	1996	1353	399
Truck and Rail Loading	1997	1333	368
Fugitives (4)	1998	576	350
Wastewater (4)	1999	163	341
	2000	111	141
	2001	112	144
	2002	111	140
	2003	112	121
	2004	111	118
	2005	110	117
	2006 (Final)	109	111

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Toluene CAP			
Source Name	Year	lb/hr	TPY
Flares Tanks Fugitives (4) Wastewater (4)	1995 (Initial)	104	110
	1996	103	106
	1997	102	102
	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

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	7.5	41
	2005	7.0	40
	2006 (Final)	6.9	40

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- (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_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - 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.
CO - carbon monoxide
H₂S - hydrogen sulfide
HCl - hydrogen chloride
NH₃ - ammonia
HF - hydrogen fluoride
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) The NO_x emissions in this subcap are also included in the overall NO_x 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 June 2, 2004