

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 6825A and PSD-TX-49

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
Fired Units, Flares, FCCU, Tanks, Cooling Towers, Marine Loading, Fugitives (4), and Sulfur Recovery Units	1996	3,914	2851
	1997	3,911	2859
	1998	3,897	2873
	1999	3,812	2612
	2000	801	2208
	2001	690	1771
	2002	647	1582
	2003	569	1294.5
	2004 (Final)	569	1259.1

NO_x EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares, FCCU, Marine Loading, and Sulfur Recovery Units	1996	3,458	15146
	1997	3,458	15146
	1998	2,873	12583
	1999	2,523	11050
	2000	2,352	10263
	2001	1,609	7012
	2002	1,405	6117
	2003	379	1621.5
	2004 (Final)	543	2327.9

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SO₂ EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares, FCCU, Marine Loading, and Sulfur Recovery Units	1996	1,475	6459
	1997	1,394	6105
	1998	1,347	6064
	1999	1,347	6064
	2000	1,338	6026
	2001	1,325	5896
	2002	1,353	5948
	2003	1,364	5994.2
	2004 (Final)	720	3259.8

CO EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares, FCCU, Marine Loading, and Sulfur Recovery Units	1996	1,299	5690
	1997	1,299	5690
	1998	1,271	5569
	1999	1,276	5588
	2000	1,277	5519
	2001	1,276	5513
	2002	1,278	5522
	2003	1,270	5501.7
	2004 (Final)	861	3691.7

PM EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, FCCU, and Sulfur Recovery Units	1996	153	671
	1997	153	671
	1998	150	656
	1999	150	656
	2000	148	647
	2001	148	647
	2002	150	659
	2003	151	659.7
	2004 (Final)	126	551.9

H₂S EMISSION CAP

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Source Name	Year	lb/hr	TPY
Sulfur Recovery Units, Flares, Fugitive (4), and Land Loading	1996	5.7	25.1
	1997	5.7	25.1
	1998	4.6	20.0
	1999	3.5	15.0
	2000	2.5	10.0
	2001	1.3	5.0
	2002	1.3	5.0
	2003	1.3	5.0
	2004 (Final)	0.5	1.7

HF EMISSION CAP

Source Name	Year	lb/hr	TPY
Fugitives (4) and Fired Units	1996 (Initial)	0.5	2.4
	1997	0.5	2.4
	1998	0.5	2.4
	1999	0.5	2.4
	2000	0.5	2.4
	2001	0.5	2.4
	2002	0.5	2.4
	2003	0.5	2.4
	2004	0.5	2.4

NH₃ EMISSION CAP

Source Name	Year	lb/hr	TPY
Fugitives (4) and Tanks	1996 (Initial)	0.1	0.2
	1997	0.1	0.2
	1998	0.1	0.2
	1999	0.1	0.2
	2000	0.1	0.2
	2001	0.1	0.2
	2002	0.1	0.2
	2003	0.1	0.2
	2004	0.1	0.2

SPECIATED VOC EMISSION CAPS

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
Benzene CAP

Source Name	Year	lb/hr	TPY
Tanks, Flares, Fugitives (4), and Marine Loading	1996	11.6	14.9
	1997	10.9	11.6
	1998	10.9	11.5
	1999	10.8	11.3
	2000	10.8	11.2
	2001	2.9	9.7
	2002	2.9	9.7
	2003	2.9	9.69
	2004	2.9	9.65

MTBE CAP

Source Name	Year	lb/hr	TPY
Tanks, Fugitives (4), and Marine Loading	1996	19.2	31.1
	1997	19.2	31.1
	1998	19.2	31.1
	1999	19.2	31.1
	2000	13.2	30.4
	2001	13.2	30.4
	2002	13.2	30.4
	2003	13.2	30.4
	2004	13.2	30.4

CLEAN FUEL SOURCES

Source Name	Year	lb/hr	TPY
E-01-245 Reactor Heater	SO ₂	0.85	3.73
	NO _x	1.44	6.31
	CO	2.48	10.84
	PM ₁₀	0.24	1.07
	VOC	0.18	0.77

CLEAN FUEL SOURCES (continued)

Source Name	Year	lb/hr	TPY
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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

E-26-Flare	Flare 26	SO ₂	0.80	3.50
		NO _x	0.87	3.81
		CO	2.40	10.50
		VOC	0.06	0.28
F-Pipe	Piping Fugitives (4)	VOC	0.18	0.78
F-CT-400	Cooling Tower CT-400	VOC	0.50	2.21
F-245	Fugitives - Gasoline Hydrotreating	VOC	1.32	5.78
TK-FCCGAS	FCC Gasoline Tank	VOC	1.85	8.08

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan per Attachment 1.
- (2) Specific point source name. 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 in emitted.
 CO - carbon monoxide
 H₂S - hydrogen sulfide
 MTBE - methyl tert-butyl ether
 NH₃ - ammonia
 HF - hydrogen fluoride
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

Dated May 17, 2002