

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 6825Z and PSD-TX-49Z

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	2,851
	1997	3,911	2,859
	1998	3,897	2,873
	1999	3,812	2,612
	2000	801	2,208
	2001	690	1,771
	2002	647	1,582
	2003	620	1,373
	2004	561	1,187
	2005 (Final)	569	1,220

NO_x EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares, FCCU, Marine Loading, and Sulfur Recovery Units	1996	3,458	15,146
	1997	3,458	15,146
	1998	2,873	12,583
	1999	2,523	11,050
	2000	2,352	10,263
	2001	1,609	7,012
	2002	1,405	6,117
	2003	1,328	5,773
	2004	1,262	5,488
	2005 (Final)	897	3,880

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SO₂ EMISSION CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, Flares, FCCU, Marine Loading, and Sulfur Recovery Units	1996	1,475	6,459
	1997	1,394	6,105
	1998	1,347	6,064
	1999	1,347	6,064
	2000	1,338	6,026
	2001	1,325	5,896
	2002	1,353	5,948
	2003	1487	6,422
	2004	1466	6,422
	January 1 through April 15 After April 15	2005	6,422
	2005 (Final)	720	3,154

CO EMISSION CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, Flares, FCCU, Marine Loading, and Sulfur Recovery Units	1996	1,299	5,690
	1997	1,299	5,690
	1998	1,271	5,569
	1999	1,276	5,588
	2000	1,277	5,519
	2001	1,276	5,513
	2002	1,278	5,522
	2003	1384	5,690
	2004	1384	5,690
	2005 (Final)	861	3,690

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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	164	671
	2004	164	671
	2005 (Final)	126	551

H₂S EMISSION CAP

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	1.5	5.5
	2004 (Final)	0.5	1.9

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HF EMISSION CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
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 (Final)	0.5	2.4

NH₃ EMISSION CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
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 (Final)	0.1	0.2

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SPECIATED VOC EMISSION CAPS

Benzene CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
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 (Final)	2.9	9.65

MTBE CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
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 (Final)	13.2	30.4

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
CLEAN FUEL POINT SOURCES

EPN	Source Name	Air Contaminant(3)	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
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 a plot plan per Attachment 1.
- (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 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 December 9, 2002