

## EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Flexible Permit Numbers 6825A, PSD-TX-49, and N65

### 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 1 for list of Emission Point Numbers and Source Descriptions for emission points included in each Source Category.

### VOC EMISSION CAP

Source Categories	Year	lb/hr	TPY **
Cooling Water, FCCU, Fired Units, Flares, Fugitives (4), Marine Loading, Storage Tanks, Sulfur Recovery Units, and COEXII	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	651.40	1,505
	2004	592.40	1,319
	2005	600.40	1,352
	2006 (5)	592.18	1,323.58
	2008 (6)	590.95	1,318.18
	2009 (7)	590.95	1,318.18

### VOC EMISSION CAP FOR SOURCES PERMITTED UNDER NONATTAINMENT PERMIT N65

COEXII	2009	39.60	170.82
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# EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

## NO<sub>x</sub> EMISSION CAP

Source Categories	Year	lb/hr	TPY **
FCCU, Fired Units, Flares, Marine Loading, Sulfur Recovery Units, and COEXII	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	1,417.72	6,080
	2004	1,351.72	5,795
	2005	986.72	4,187
	2005	986.72	4,018
	2006 (5)	971.47	3,649.19
	2008 (6)	901.88	3,344.39
	2009 (7)	945.19	3,516.85

## SO<sub>2</sub> EMISSION CAP

Source Categories	Year	lb/hr	TPY **
FCCU, Fired Units, Flares, Marine Loading, Sulfur Recovery Units, and COEXII	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	1,599.59	6,915
	2004	1,578.59	6,915
	2005	1,578.59	6,915
	2005	832.59	2,547
	2006 (5)	828.09	2,527.38
	2008 (6)	816.29	2,475.98
	2009 (7)	850.43	2,611.93

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### CO EMISSION CAP

Source Categories	Year	lb/hr	TPY **
FCCU,	1996	1,299	5,690
Fired Units,	1997	1,299	5,690
Flares,	1998	1,271	5,569
Marine Loading,	1999	1,276	5,588
Sulfur Recovery Units, and	2000	1,277	5,519
COEXII	2001	1,276	5,513
	2002	1,278	5,522
	2003	1,492.20	6,164
	2004	1,492.20	6,164
January 1 through April 15	2005	969.20	4,164
After April 15	2005	969.20	4,124
	2006 (5)	959.28	4,120.51
	2008 (6)	924.48	3,968.11
	2009 (7)	966.84	4,136.78

### PM<sub>10</sub> EMISSION CAP

Source Categories	Year	lb/hr	TPY **
Coke,	1996	153	671
FCCU,	1997	153	671
Fired Units,	1998	150	656
Sulfur Recovery Units, and	1999	150	656
COEXII	2000	148	647
	2001	148	647
	2002	150	659
	2003	179.03	725
	2004	179.03	725
January 1 through April 15	2005	179.03	725
After April 15	2005	141.03	605
	2006 (5)	139.15	597.41
	2008 (6)	134.75	578.41
	2009 (7)	143.97	615.12

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

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Source Categories	Year	lb/hr	TPY **
Flares, Fugitive (4), Land Loading, Sulfur Recovery Units, and COEXII	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	5.24	14.1
	2004	4.24	10.5
	2005	4.24	8.9

## HF EMISSION CAP

Source Categories	Year	lb/hr	TPY **
Fired Units and Fugitives (4)	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
	2006 (5)	0.36	1.79

## EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

### NH<sub>3</sub> EMISSION CAP

Source Categories	Year	lb/hr	TPY **
Fugitives (4), Storage Tanks, and COEXII	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

#### Benzene CAP

Source Categories	Year	lb/hr	TPY
Flares, Fugitives (4), Marine Loading, Storage Tanks, and COEXII	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	2.91	9.74
	2004	2.91	9.74

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## EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

### MTBE CAP

Source Categories	Year	lb/hr	TPY
**			
Fugitives (4), Marine Loading, Storage Tanks, and COEXII	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

### INDIVIDUAL EMISSIONS LIMITATIONS

Source Categories	Year	lb/hr	TPY
**			
E-01-WGS    Wet Gas Scrubber	NO <sub>x</sub> (8)		271.93
E-01-245    HTU-245 Reactor Heater	VOC	0.18	0.77
	NO <sub>x</sub>	1.44	6.31
	SO <sub>2</sub>	0.85	3.73
	CO	2.48	10.84
	PM <sub>10</sub>	0.24	1.07
F-Pipe        Piping Fugitives (4)	VOC	0.18	0.78
F-245         HTU 245 fugitives	VOC	1.32	5.78

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

ROUTINE MAINTENANCE, START-UP, AND SHUTDOWN EMISSIONS

EPN	Source Name	Air Contaminant (3)		lb/hr	TPY **
E-20-Flare	Flare No. 20 MSS Emissions	VOC		0.06	0.28
		NO <sub>x</sub>		0.87	3.81
		SO <sub>2</sub>	0.80	3.50	
		CO		2.40	10.50
E-01-1241	FCCU-1241 Boiler B-103A MSS Emissions	VOC		0.1	0.4
		NO <sub>x</sub>		0.2	0.9
		SO <sub>2</sub>	0.01	0.01	
		CO	0.2	0.9	
		PM <sub>10</sub>	0.1	0.4	
E-02-1241	FCCU-1241 Boiler B-103B MSS Emissions	VOC		0.1	0.4
		NO <sub>x</sub>		0.2	0.9
		SO <sub>2</sub>	0.01	0.01	
		CO	0.2	0.9	
		PM <sub>10</sub>	0.1	0.4	

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan per Attachment 1.

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- (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 PM greater than 10 microns in diameter is emitted.
- H<sub>2</sub>S - hydrogen sulfide  
HF - hydrogen fluoride  
NH<sub>3</sub> - ammonia  
MTBE - methyl-tert-butyl ether
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Reduction in 2006 allowables due to removal of start-up emissions from FCCU-1241 Heaters B-103A and B-103B from Caps; dismantling of FCCU-1241 Heater B-103C; Tank 2109 no longer belonging to permit holder; voluntary reduction of 362 tpy of NO<sub>x</sub> emissions from EPN E-01-WGS; and reduction of emissions from supplemental fuel for CO9 Boiler.  
Note: Reduction of NO<sub>x</sub> and CO emissions from the shutdown of the CO9 Boiler were previously reflected in the caps.
- (6) After planned shutdown of EPNs E-04-18BH and E-05-18BH.
- (7) Emissions from COEXII EPNs to be included in source caps beginning in 2009; VOC emissions from COEXII EPNs covered under Nonattainment Permit N65.
- (8) Emission limit for NO<sub>x</sub> emissions from wet gas scrubber after March 9, 2006. This limit is to make emission reductions enforceable so that permit holder can claim Emission Reduction Credits.
- \*\* Compliance with annual emission limits is based on a calendar basis through December 31, 2004, and on a 12-month rolling average thereafter.



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Dated February 5, 2008