

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	Emission Rates *	
		lb/hr	TPY**
Cooling Towers, FCCU, Fired Units, Flares, Fugitives (4), Marine Loading, Storage Tanks, Sulfur Recovery Units, COEXII, and DCU-844	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	1323.58
	2007 (6)	590.95	1318.18
	2008 (8)	428.68	862.99
	2009 (9)	460.99	1003.25
	2011 (10)	460.99	1003.25
	2012 (11)	460.99	1003.25
	2013 (12)	466.85	1028.17

VOC EMISSION CAP FOR SOURCES PERMITTED UNDER NONATTAINMENT PERMIT NUMBER N65			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
COEXII and DCU-844	2011 (13)	41.14	124.18

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

NO _x EMISSION CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
FCCU, Fired Units, Flares, Marine Loading, Storage Tanks, Sulfur Recovery Units, COEXII, and DCU-844	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	1417.22	6,080
	2004	1351.72	5,795
	2005	986.72	4,187
	2005	986.72	4,018
	2006 (5)	971.47	3649.19
	2007 (6)	901.88	3344.39
	2008 (8)	901.88	3344.39
	2009 (9)	901.88	3344.40
	2011 (10)	911.58	3378.60
	2012 (11)	911.58	3185.40
	2013 (12)	918.18	3211.68

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

SO ₂ EMISSION CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
FCCU, Fired Units, Flares, Marine Loading, Sulfur Recovery Units, COEXII, and DCU-844 January 1, 2005 through April 15, 2005 After April 15, 2005	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	1599.59	6,915
	2004	1578.59	6,915
	2005	1578.59	6,915
	2005	832.59	2,547
	2006 (5)	828.09	2527.38
	2007 (6)	816.29	2475.98
	2008 (8)	816.29	2475.98
	2009 (9)	816.85	2478.42
	2011 (10)	827.95	2493.32
	2012 (11)	827.95	2479.12
	2013 (12)	841.42	2497.25

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

CO EMISSION CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
FCCU, Fired Units, Flares, Marine Loading, Sulfur Recovery Units, COEXII, and DCU-844 January 1, 2005 through April 15, 2005 After April 15, 2005	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	1492.20	6,164
	2004	1492.20	6,164
	2005	969.20	4,164
	2005	969.20	4,124
	2006 (5)	959.28	4120.51
	2007 (6)	924.48	3968.11
	2008 (8)	924.48	3968.11
	2009 (9)	924.48	3968.12
	2011 (10)	954.68	4028.32
	2012 (11)	954.68	4016.42
	2013 (12)	989.85	4086.44

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

PM ₁₀ EMISSION CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
FCCU, Fired Units, Flares, Marine Loading, Sulfur Recovery Units, COEXII, and DCU-844	1996	153	671
	1997	153	671
	1998	150	656
	1999	150	656
	2000	148	647
	2001	148	647
	2002	150	659
	2003	179.03	725
	2004	179.03	725
	2005	179.03	725
	2005	141.03	605
	2006 (5)	139.15	597.41
	2007 (6)	134.75	578.41
	2008 (8)	134.75	578.41
	2009 (9)	135.46	581.51
	2011 (10)	138.76	592.71
	2012 (11)	138.76	592.71
	2013 (12)	144.55	608.14
January 1, 2005 through April 15, 2005			
After April 15, 2005			

H₂S EMISSION CAP

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
Flares, Fugitives (4), Land Loading, Sulfur Recovery Units, COEXII, and DCU-844	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
	2008 (8)	4.24	8.90
	2009 (9)	4.82	11.41
	2011 (10)	5.06	12.43
HF EMISSION CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
Fired Units and Fugitives (4)	1996	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 ₃ EMISSION CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
Fugitives (4), Storage Tanks, COEXII, and DCU-844	1996	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
	2011 (10)	1.43	4.87
	2012 (11)	9.33	39.07
	2013 (12)	11.47	47.57

SPECIATED VOC EMISSION CAPS

Benzene CAP			
Source Categories	Year	Emission Rates *	
		lb/hr	TPY**
Flares, Fugitives (4), Marine Loading, Storage Tanks, COEXII, and DCU-844	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
	2009 (9)	3.02	10.23

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

MTBE CAP			
Source Categories	Year	Emission Rates *	
		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				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
E-01-WGS	Wet Gas Scrubber	NO _x (7)		271.93
E-01-245	HTU-245 Reactor Heater	VOC	0.18	0.77
		NO _x	1.44	6.31
		SO ₂	0.85	3.73
		CO	2.48	10.84
		PM ₁₀	0.24	1.07
E-V54	Chlorosorb Vent	VOC	0.16	0.70
		HCl	0.02	0.07
F-Pipe	Piping Fugitives (4)	VOC	0.18	0.78
F-245	HTU-245 fugitives	VOC	1.32	5.78

ROUTINE MAINTENANCE, START-UP, AND SHUTDOWN EMISSIONS

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
E-20-Flare	Flare No. 20 MSS Emissions	VOC NO _x SO ₂ CO	0.06 0.87 0.80 2.40	0.28 3.81 3.50 10.50
E-01-1241	FCCU-1241 Boiler B-103A MSS Emissions	VOC NO _x SO ₂ CO PM ₁₀	0.1 0.2 0.01 0.2 0.1	0.4 0.9 0.01 0.9 0.4
E-02-1241	FCCU-1241 Boiler B-103B MSS Emissions	VOC NO _x SO ₂ CO PM ₁₀	0.1 0.2 0.01 0.2 0.1	0.4 0.9 0.01 0.9 0.4

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

- (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
 - CO - carbon monoxide
 - 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 PM greater than 10 microns in emitted.
 - H₂S - hydrogen sulfide
 - HCl - hydrogen chloride
 - HF - hydrogen fluoride
 - NH₃ - ammonia
 - MTBE - methyl-tertiary-butyl ether
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Cap contributions for FCCU-1241 Heaters B-103A (EPN E-01-1241) and B-103B (EPN E-02-1241) were removed from the flexible permit caps and individual emission limits for these heaters were established because FCCU-1241 Heaters B-103A and B-103B are used for start-up only. Additional reductions of 2006 flexible permit caps were made due to dismantling of FCCU-1241 Heater B-103C; Tank 2109 no longer belonging to permit holder; voluntary reduction of 362 tons per year of NO_x emissions from EPN E-01-WGS; and reduction of emissions from supplemental fuel for CO9 Boiler.

Note: Reduction of NO_x 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) Emission limit for NO_x emissions from wet gas scrubber after March 9, 2006. The purpose of establishing this limit is to make emission reductions enforceable so that permit holder can claim emission reduction credits.
- (8) Cap contributions for EPNs 5105, 5121, 5122, 5209, 5214, 5215, 5217, 5238, 7373, 7374, F-PH1, F-PH11, E-07-SRURK, E-07-SRURK, E-07-SRURK, E-07-SRURK, E-07-SRURK, E-07-SRURK, E-01-FLARE, and E-08-FLARE were removed from the flexible permit caps because these EPNs were permanently shutdown or dismantled.
- (9) Flexible permit caps increased due to transfer of storage tanks from Permit Numbers 2303, 5491, 7600, and 56456 into the flexible permit and incorporation of unregistered PBRs and PBR Registration Numbers 76069 and 81668 into the flexible permit. The cap contributions for the storage tanks and PBRs do not include a 9 percent insignificant allowance.

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

- (10) Cap contributions for sources associated with COEX II Project included in flexible permit caps. The cap contributions for the COEX II EPNs do not include a 9 percent insignificant allowance.
- (11) Cap contributions for EPNs E-01-19BH, E-02-19BH, and E-03-19BH included in flexible permit caps and cap contributions for EPNs E-02-15BH and EPN E-03-15BH removed from flexible permit cap. The cap contributions for the EPNs added do not include a 9 percent insignificant allowance.
- (12) Cap contributions for sources associated with Delayed Coker Unit 844 (DCU-844) Project included in flexible permit caps. The cap contributions for the DCU-844 Project EPNs added do not include a 9 percent insignificant allowance.
- (13) The VOC emissions from COEX II and DCU-844 sources are subject to a separate emission limit in order to establish enforceable emission limits for these sources which are authorized by Nonattainment Permit Number 65.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

_____Hrs/day _____Days/week _____Weeks/year or 8,760 Hrs/year

** Compliance with annual emission limits is based on a calendar basis through December 31, 2004, and on a 12-month rolling average thereafter.

Dated March 30, 2009