EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

Flexible Permit Numbers 6308 and PSD-TX-137M2

This table lists the maximum allowable emission caps 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.

NO_x EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Fired Units	2000 through 2005	431.86	921.08
Fired Units, Boilers	2006	455.46	1024.08

CO EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Fired Units	2000 through 2005	300.53	488.16
Fired Units, Boilers	2006	328.83	612.06

SO_2 EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Fired Units	2000 through 2005	277.10	160.29
Fired Units, Boilers	2006	289.09	191.89

PM EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Fired Units	2000 through 2005	50.84	192.97
Fired Units, Boilers, Cooling Towers (7)	2006	53.74	205.77

EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

VOC EMISSION CAP

Facility/Emission Source Categories	Year	lb/hr	TPY **
Fired Units, Cooling Towers, Tanks, Fugitives, Wastewater, Miscellaneous (4)	2000 through 2005	688.09	609.19
Fired Units, Cooling Towers, Tanks, Fugitives, Wastewater, Miscellaneous, Boilers (4)	2006	681.69	581.29

Cl_2 EMISSION CAP

Facility/Emission Source Categories	Year	lb/hr	TPY **
Cooling Towers (7)	2000 through 2005	0.00015	0.0007
Cooling Towers (7)	2006	0.00015	0.0007

Toluene EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Tanks E11TKS23, E11TKR17, and E11TKR18	2000	0.96	2.53

Xylene EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Tanks E11TKS32, E11TKR9, and E11TKR11	2000	11.92	13.06

Benzene EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Tanks E11TKR5, E11TKR7	2000	1.34	2.77

Cyclohexane EMISSION CAP

EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

Facility/Emission Point Categories	Year	lb/hr	TPY **
Tanks E11TKS21, E11TKR34, and E11TKR40	2000	0.78	2.67

MTBE EMISSION CAP

Facility/Emission Point Categories	Year	lb/hr	TPY **
Tanks E11TKS21, E12TK146, E18TK125, and E18TK140	2000	3.79	6.16

INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY **
FL-97/FL-28/ FL-27	Main Flare, West Flare and East Flare	VOC	29.50	99.17l
		NO_x	3.30	11.49
		CO	16.97	59.16
		SO_2	7.30	31.27
		H_2S	0.08	0.34
22	Boiler No. HA-5 (5)	VOC	0.65	2.84
		NO_x	33.0	145.0
		CO	9.90	43.40
		SO_2	3.68	9.67
		PM_{10}	0.90	3.92
23	Boiler No. HA-6 (5)	VOC	0.65	2.84
		NO_x	33.0	145.0
		CO	9.90	43.40
		SO_2	3.68	9.67
		PM_{10}	0.90	3.92
24	Boiler No. HA-7 (5)	VOC	0.65	2.84
		NO_x	33.0	145.0
		CO	9.90	43.40
		SO_2	3.68	9.67

EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY **
		PM_{10}	0.90	3.92
C-108	BTX Cooling Tower (8)	PM	0.17	0.74
		Cl_2	0.00005	0.0002
C-109	CrudeII Cooling Tower (8)	PM	0.24	1.05
		Cl_2	0.00008	0.0003
C-110	Hydrobon Cooling Tower (8)	PM	0.29	1.26
		Cl_2	0.00007	0.0003
SULFUR RECOVERY UNIT NO. 1 (6)				
E29H417	SRU No. 1 Heater	VOC	0.02	0.09
		NO_x	0.58	2.53
		CO	0.31	1.36
		PM	0.03	0.12
		SO_2	0.12	0.31
F-SRU1	SRU No. 1 Fugitives (4)	VOC	0.05	0.21
		CO	0.03	0.13
		H_2S	0.05	0.20
F-AMINE1	ARU No 1 Fugitives (4)	VOC	0.07	0.31
		CO	0.01	0.03
		H_2S	0.02	0.09
FL-87	SRU No. 1 Flare	VOC	0.10	0.22
		NO_x	0.08	0.18
		CO	0.71	1.55
		SO_2	<0.01	0.01
S-84, S-85	SRU No. 1 and No. 2 Tail Gas Incinerator Stacks (TGI)	VOC	0.13	0.58
		NO_x	2.41	10.60
		CO	14.00	61.20
		PM	0.18	0.80

EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY **
		SO_2	39.04	171.01
		H_2S	0.42	1.82
SULFUR RECOVERY UNIT NO. 2				
ARU2SUMP	ARU No. 2 Sump	VOC	0.02	<0.01
F-SRU2	SRU No. 2 Fugitives	VOC	0.05	0.21
		CO	0.03	0.13
		H_2S	0.05	0.20
F-AMINE2	ARU No. 2 Fugitives	VOC	0.07	0.31
		CO	0.01	0.03
		H_2S	0.02	0.09
FL-88	SRU No. 2 Acid Gas Flare	VOC	0.10	0.22
		NO_x	0.08	0.18
		CO	0.71	1.55
		SO_2	<0.01	<0.01
SRU2SUMP	SRU No. 2 Sump	VOC	0.02	<0.01l
F-SWS2	SWS No. 2	H_2S	0.01	0.02
MAINTENANCE AND START-UP EMISSIONS				
FL-97/FL-28/ FL-27	Main Flare, West Flare and East Flare	VOC	561.58	1.24
		NO_x	46.03	0.23
		CO	236.91	1.17
		SO_2	589.46	4.75
		H_2S	3.43	0.09
BTX REGEN	BTX Regenerator Vent	NO_x	46.00	2.73
		CO	13.65	0.82
		SO_2	0.61	0.06
		HCl	0.58	0.03

EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

(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
SO_2 - sulfur dioxide
PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - 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
$C1_2$ - chlorine
MTBE - methyl-tert-butyl ether
H_2S - hydrogen sulfide
HCl - hydrogen chloride
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Boilers HA-5, HA-6, and HA-7 emission rates are valid through 2005 or until Low-NO_x burners have been installed. After 2005, the boilers are in the emission caps.
(6) Permit Number 1413 which authorized SRU No. 1 was consolidated into Permit Number 6308 in August 2002.
(7) Only the FCCU and Sulfolane Cooling Towers are included in the PM and Cl_2 emission caps.
(8) These emission rates are effective after 2006.

* 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 rolling 12-calendar-month period.

Dated ____