EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

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 D for list of Emission Point Nos. (EPNs) and Source Descriptions for emission points included in each Source Category.

EMISSION CAPS (NORMAL OPERATIONS) (10)

	AIR CONTAMINANT DATA		
Source Categories	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
Combustion Units, Cooling Towers, Flares/Vapor Combustor, Fugitives (4), Loading, Process Vents, Storage Tanks, and Wastewater	VOC	397.2	1,128
	Benzene	18.28	36.73
Combustion Units, Flares/Vapor Combustor, and Process Vents	NO_x	197.4	832.5
	CO	506.6	1,908
	SO_2	202.9	626.9
Combustion Units, Cooling Towers, and Process Vents	PM/PM_{10}	56.92	214.3
Combustion Units, Flares/Vapor Combustor, Fugitives, Process Vents, and Storage Tanks	H_2S	3.20	12.13

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

INDIVIDUAL EMISSION LIMITATIONS

Emission Point No. (1)	Source Name (2)	AIR CONTAMINANT DATA Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
F-028	DHT/ASU (4)	NH_3	0.01	0.01
F-100	No. 1 Crude (4)	NH_3	0.01	0.02
F-850	South Merox Unit (4)	NH_3	0.01	0.01
F-1000	POU (4)	NH_3	0.01	0.01
F-1400	Vacuum (4)	NH_3	0.01	0.01
F-1500	HCU (4)	NH_3	0.01	0.02
F-2000	ROSE Unit (4)	NH_3	0.01	0.01
F-2200	DOT/Reformate Splitter (4)	NH_3	0.17	0.76
F-2300	ATS (4)	NH_3	0.01	0.01
F-2300	SWS (4)	NH_3	0.01	0.04
F-2400	FCCU (4)	NH_3	0.04	0.17
F-2400	FCCU Gas Con (4)	NH_3	0.01	0.01
F-2400	FCCU Merox (4)	NH_3	0.01	0.01
F-3700	HCU (4)	NH_3	0.01	0.01
F-3800	No. 2 HDU (4)	NH_3	0.01	0.02
F-3900	LEU (4)	NH_3	0.01	0.01
F-4000	No. 1 and No. 2 SRU (4)	NH_3	0.01	0.04
H-028	Crude Charge Heater 1	NO_x	11.18	23.41
		CO	14.61	44.41
		VOC	1.10	4.80
		SO_2	6.17	7.56
		PM/PM_{10}	1.51	6.63

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

H-036	Crude Charge Heater 1	NO_x	11.18	31.56
		CO	14.61	55.54
		VOC	1.10	4.80
		SO_2	7.95	9.23
		PM/PM_{10}	1.51	6.63
H-016	Vacuum Unit Charge Heater	NO_x	4.66	20.12
		CO	9.57	19.66
		VOC	0.72	3.14
		SO_2	6.24	6.75
		PM/PM_{10}	0.99	4.34
H-021	ROSE "DAGO" Heater	NO_x	1.31	4.71
		CO	2.69	4.71
		VOC	0.24	0.84
		SO_2	1.18	1.60
		PM/PM_{10}	0.33	1.17
H-022	Asphalt Heater	NO_x	0.98	4.28
		CO	1.96	3.96
		VOC	0.15	0.64
		SO_2	1.09	1.38
		PM/PM_{10}	0.20	0.89
H-020	Isostripper Reboiler Heater	NO_x	1.99	4.90
		CO	3.12	3.83
		VOC	0.27	0.75
		SO_2	0.47	1.16
		PM/PM_{10}	0.37	1.04
B-007	"BTX" Boiler	NO_x	12.33	34.16
		CO	18.02	27.76
		VOC	1.26	4.70
		SO_2	0.13	0.44
		PM/PM_{10}	1.74	6.49
H-043	H043 BTX Reboil Heater	NO_x	1.34	5.88
		CO	2.69	5.50
		VOC	0.20	0.88
		SO_2	1.64	1.90
		PM/PM_{10}	0.28	1.22

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

H-044	BTX Reboil Heater	NO_x	1.83	5.75
		CO	3.65	4.93
		VOC	0.28	0.89
		SO_2	1.50	1.68
		PM/PM_{10}	0.39	1.22
B-004	Boiler 6F1-A & Boiler 6F1-B	NO_x	25.97	72.43
		CO	9.28	12.94
		VOC	0.80	2.23
		SO_2	3.79	4.77
		PM/PM_{10}	1.11	3.08
B-006	East Plant Boiler Emissions	NO_x	13.07	49.82
		CO	7.83	12.98
		VOC	0.59	2.24
		SO_2	3.67	4.52
		PM/PM_{10}	0.81	3.09
H-041	DOT H2 Recycle Furnace	NO_x	1.10	2.39
		CO	1.83	2.00
		VOC	0.16	0.36
		SO_2	0.88	0.78
		PM/PM_{10}	0.23	0.50
H-040	Steam Methane Reformer Heater	NO_x	4.96	14.56
		CO	2.99	4.37
		VOC	0.27	0.78
		SO_2	1.31	1.60
		PM/PM_{10}	0.37	1.08
H-039	No. 1 SRU Hot Oil Heater	NO_x	0.69	1.60
		CO	0.50	2.17
		VOC	0.04	0.16
		SO_2	0.33	0.31
		PM/PM_{10}	0.05	0.23
H-047	No. 2 SRU Hot Oil Heater	NO_x	1.39	6.07
		CO	0.14	0.15
		VOC	0.14	0.61
		SO_2	1.21	1.30
		PM/PM_{10}	0.19	0.84

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

H-015	Lubr. Oil Crude Atmospheric Heater	NO_x	1.07	4.01
		CO	1.90	3.32
		VOC	0.17	0.76
		SO_2	0.02	0.08
		PM/PM_{10}	0.24	1.05
H-037	HDU Charge Heater 2	NO_x	2.68	5.96
		CO	3.28	3.38
		VOC	0.26	0.58
		SO_2	1.34	0.24
		PM/PM_{10}	0.36	0.81
H-038	HDU Reboiler Heater 2	NO_x	1.85	4.11
		CO	2.88	3.21
		VOC	0.25	0.55
		SO_2	0.88	0.99
		PM/PM_{10}	0.34	0.77
H-014	Naphtha Splitter Reboiler	NO_x	4.16	13.11
		CO	4.60	6.05
		VOC	0.34	1.09
		SO_2	1.96	2.09
		PM/PM_{10}	0.48	1.50
H-026	Glycol Contactor Heater	NO_x	0.33	1.30
		CO	0.24	1.04
		VOC	0.02	0.08
		SO_2	0.16	0.17
		PM/PM_{10}	0.02	0.11
H-034	H.C.U. Recycle Heater	NO_x	3.47	11.24
		CO	4.99	7.02
		VOC	0.37	1.21
		SO_2	2.40	2.24
		PM/PM_{10}	0.52	1.67
H-035	H.C.U. Debutanizer Reboiler Heater	NO_x	2.66	11.67
		CO	4.79	9.26
		VOC	0.36	1.57
		SO_2	2.21	2.81
		PM/PM_{10}	0.50	2.17

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

H-018	H.C.U. Fractionation Heater	NO_x	4.24	10.52
		CO	2.82	3.05
		VOC	0.21	0.53
		SO_2	1.85	0.93
		PM/PM_{10}	0.29	0.73
H-019	H.C.U. Fractionation Heater	NO_x	2.70	8.02
		CO	1.57	2.33
		VOC	0.13	0.40
		SO_2	1.37	1.51
		PM/PM_{10}	0.19	0.55
H-030	No. 2 Reformer Charge Heater	NO_x	13.11	32.81
		CO	9.54	31.64
		VOC	1.03	3.12
		SO_2	5.42	6.24
		PM/PM_{10}	1.43	4.31
H-032	No. 2 Reformer Charge Heater	NO_x	6.27	15.99
		CO	4.34	22.86
		VOC	0.66	2.02
		SO_2	3.58	4.60
		PM/PM_{10}	0.91	2.80
H-033	No. 2 Reformer Stab. Reboiler	NO_x	1.31	4.00
		CO	2.04	3.12
		VOC	0.18	0.54
		SO_2	0.84	1.03
		PM/PM_{10}	0.24	0.74
H-045	DHT Charge Heater	NO_x	2.05	8.98
		CO	2.95	5.53
		VOC	0.22	0.97
		SO_2	1.93	1.82
		PM/PM_{10}	0.31	1.34
H-046	Fractionator Feed Heater	NO_x	2.88	12.59
		CO	4.59	9.06
		VOC	0.34	1.51
		SO_2	2.87	3.11
		PM/PM_{10}	0.48	2.09

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

H-023	Tracing Oil Heater	NO_x	0.09	0.27
		CO	0.15	0.22
		VOC	0.01	0.04
		SO_2	0.08	0.08
		PM/PM_{10}	0.02	0.06
H-004	Lubr. HDS Charge Heater	NO_x	0.35	1.54
		CO	0.76	3.32
		VOC	0.05	0.23
		SO_2	0.01	0.03
		PM/PM_{10}	0.07	0.32
H-031	No. 1 HDU Stripper Reboiler Heater	NO_x	0.60	2.64
		CO	1.21	5.29
		VOC	0.09	0.40
		SO_2	0.79	0.85
		PM/PM_{10}	0.13	0.55
H-010	No. 1 HDU Reactor Charge Heater	NO_x	0.79	3.44
		CO	1.57	6.89
		VOC	0.12	0.52
		SO_2	1.03	1.11
		PM/PM_{10}	0.16	0.71
H-011	No. 1 Ref. Stabilizer Reboiler Heater	NO_x	0.52	2.26
		CO	0.83	3.61
		VOC	0.06	0.27
		SO_2	0.54	0.59
		PM/PM_{10}	0.09	0.37
H-012	Reformer Charge Heater	NO_x	5.41	23.72
		CO	7.56	16.86
		VOC	0.57	2.48
		SO_2	4.94	5.34
		PM/PM_{10}	0.78	3.43
H-013	No. 1 Stabilizer Reboiler Heater	NO_x	0.99	4.34
		CO	0.66	1.99
		VOC	0.05	0.22
		SO_2	0.44	0.47
		PM/PM_{10}	0.07	0.30

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

B-005	West Plant No. 2 Boiler	NO_x	3.24	14.19
		CO	3.88	8.90
		VOC	0.29	1.27
		SO_2	2.53	2.74
		PM/PM_{10}	0.40	1.76
S-007, S-008, S-031, S-032, S-033, S-034, S-035, S-036, S-037, S-038, S-039, S-040, S-041, S-042, S-043, S-044, S-100, S-101, S-102, S-108, S-114, S-115, S-116, S-119, S-120, S-127, S-128, S-129, S-130, S-200, S-201, S-206, S-207, S-208, S-209, S-210, S-211, S-212, S-213, S-214, S-215, S-216, S-217, S-218, S-219, S-220, S-221, S-222, S-223, S-224, S-225, S-300, S-301, S-302, S-303, S-304, S-305, S-306, S-308, S-309, S-310, S-311, S-312, S-313, S-314, S-315, S-316, S-317, S-318, S-331, S-332, S-333 S-334, S-335, S-336, S-337 S-338, S-339, S-340, S-401 S-402, S-680-6, S-680-7, S-680-8, S-680-9	Subcaps for Storage Tanks	VOC	83.37	132.4
FL-003, FL-004, FL-006 FL-501, FL-005	Subcaps for Flares	NO_x	8.22	17.32
		CO	42.94	90.11
		VOC	55.24	118.63
		SO_2	2.87	4.74

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

F-28, F-100 (#1 Crude), F-100 (Desalter), F-400, F-500, F-620, F-660 (EPltFlareE), F-660 (EPltFlareS), F-660 (West Plant Flare System), F-700, F-820, F-830S, F-850 (S Merox Unit), F-850 (Tank Farm), F-900, F-1000, F-1200, F-1400, F-1500, F-2000, F-2100 F-2200 (DOT/Ref Splitter), F-2200 (East Plant Alky Splitter), F-2300 (ATS), F-2300 (SWS), F-2400 (FCCU), F-2400 (FCCU Gas Con), F-2400(FCCU Merox), F-2500, F-2600, F-2700, F-2800 (EP Cool Twr), F-2800(EP Utilities), F-3700 (HCU), F-3700 (HCU Hot Oil Drum), F-3800, F-3900 (LEU), F-3900 (HCU), F-4000, F-4300, F-5400, F-2600N, F-660N, F-660 (EPltFlareW), F-680 (WWTP Tanks), F-680W, F-800E, F-800W, F-830 (RAIL), F-830E, F-830N, F-830 (West Rack), F-830W, F-850N, F-850S, F-ROSE	VOC Subcaps for Equipment Fugitives (4)(9)	VOC	130.87	573.57
F-0670	West Plant Cooling Tower	VOC PM/PM_{10}	0.25 0.36	1.10 1.58
F-2810	East Plant Cooling Tower	VOC PM/PM_{10}	1.68 2.40	7.36 10.52
F-3670	No. 2 West Plant Cooling Tower	VOC PM/PM_{10}	0.59 0.84	2.57 3.69

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

F-0680	F-0680 Open-Top Biotreatment	VOC	23.08	36.23
F-0671	No. 2 API Separator	VOC	0.48	0.95
F-0682	Crude Unit Sump	VOC	3.27	6.50
F-0683	No. 1 Reformer Sump	VOC	1.66	3.31
F-0684	600 Unit Sump	VOC	0.01	0.03
F-0685	R. R. Rack Sump	VOC	0.10	0.20
F-0686	Truck Loading Sump	VOC	0.09	0.18
F-0687	Landfarm	VOC	2.26	4.50
F-0688	Vacuum Unit Sump	VOC	2.08	4.14
F-0689	Crude Unload Sump	VOC	0.24	0.47
F-3110	No. 2 Reformer Sump	VOC	0.59	1.18
V-006	No. 1 Reformer Regeneration	CO VOC Cl_2	37.50 1.40 0.40	1.50 0.06 0.02
V-007	No. 2 Reformer Regeneration	CO VOC Cl_2	5.00 0.04 0.01	14.02 0.13 0.04
V-010	FCCU Regeneration Vent	NO_x CO VOC SO_2 PM/PM_{10} H_2SO_4	62.69 195.47 6.16 43.64 30.00 13.69	96.32 184.29 14.51 52.65 69.98 59.96
V-008, V-009	Subcaps for Sulfur Plants	NO_x CO VOC SO_2 PM/PM_{10} TRS	6.16 29.09 12.21 48.13 0.37 2.26	14.12 116.32 38.43 98.22 1.58 9.94
V-003	A.T.S. Secondary Absorber	SO_2	0.09	0.01

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

L-001	Oil Truck Loading Rack	VOC	0.02	0.02
L-002	Gasoline Truck Loading Rack	VOC	16.08	6.48
L-004	Tank Car Loading Rack	VOC	0.01	0.01
L-005	Aromatic Rail Load Rack Fugitives	VOC	7.56	2.05
VCU-1	Loading Rack Vapor Combustor	NO_x	0.86	0.54
		CO	2.50	1.56
		VOC	9.38	5.78

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

PLANNED MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) EMISSION LIMITATIONS

AIR CONTAMINANT DATA

Source Categories	Air Contaminant Name (3)	Emission Rates *	
		lb/hr	TPY**
Cooling Towers, Combustion Units, Flares/Vapor Combustor Fugitives (4), Loading, Process Vents, Storage Tanks, and Wastewater	Rates From January 1, 2010 Through December 31, 2011		
	VOC (5) (6)	4709.54	260.63
	NO_x (5) (6)	302.76	43.07
	CO (5) (6)	790.39	173.64
	SO_2 (5) (6)	868.02	237.24
	$PM/PM_{10}/PM_{2.5}$ (5) (6)	3.14	0.57
	H_2S (5) (6)	2.37	2.44
	Benzene (5) (6) (8)	89.50	4.89
	CS_2 (6)	0.33	0.02
	COS (6)	1.89	0.11
	Rates Beginning January 1, 2012		
	VOC (5) (7)	4711.24	99.82
	NO_x (5) (7)	305.53	17.71
	CO (5) (7)	804.36	42.14
	SO_2 (5) (7)	894.13	61.54
	$PM/PM_{10}/PM_{2.5}$ (5) (7)	3.14	0.57
	H_2S (5) (7)	2.65	0.52
	Benzene (5) (7) (8)	90.70	2.90
	CS_2 (7)	0.33	0.02
	COS (7)	1.89	0.11

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
(2) Specific point source names. For fugitive sources, use an 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
CO - carbon monoxide
SO_2 - sulfur dioxide
PM - particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
Cl_2 - chlorine
COS - carbonyl sulfide
CS_2 - carbon disulfide
H_2S - hydrogen sulfide
H_2SO_4 - sulfuric acid
NH_3 - ammonia
TRS - total reduced sulfur
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) Planned MSS VOC, NO_x, CO, SO_2, PM_{10}, H_2S, and Benzene allowable emissions are NOT included in the Emission Caps (Normal Operations) allowable emissions.
(6) The MSS emission rates from January 1, 2010 through December 31, 2010, shall be the sum of the monthly MSS emissions for calendar year (CY) 2010. The MSS emissions for this period shall not include the MSS emissions prior to January 1, 2010. Beginning January 1, 2011, MSS emissions shall be based on a rolling 12-month period.
(7) The MSS emission rates beginning January 1, 2012 through December 31, 2012, shall be the sum of the monthly MSS emissions for CY 2012. The MSS emissions for this period shall not include the MSS emissions prior to January 1, 2012. Beginning January 1, 2013, MSS emissions shall be based on a rolling 12-month period.
(8) Benzene MSS allowables are included in the VOC allowables.
(9) Ammonia fugitive allowable emissions are specified by EPN.
(10) These emission caps have been carried forward from the flexible permit and do not include MSS emissions. The only emission cap that is limiting (lower than the sum of the subcaps and individual emission rate limits for that air contaminant) is the hourly cap for NO_x.

* 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-month period.

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Dated: December 10, 2010