EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

Permit Numbers 38754 and PSDTX324M13

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.

AIR CONTAMINANTS DATA

Pollutant (1)	Emission Rates * lb/hr	TPY**
Emission Caps		
SO_2	465.9	1,854
VOC	929.5	1,079
NO_x	1,047	2,226
CO	1,246	5,154
PM_{10}	248.6	759.5
H_2SO_4	49.00	214.6
H_2S	2.92	12.79
Benzene	16.33	13.49
Maintenance, Startup, and Shutdown (MSS) Caps (5)		
CO	3,005	54.35
NO_x	560.3	11.24
VOC	1,838	59.96
SO_2	1,019	37.24
H_2S	6.59	0.22
PM	80.53	1.28
Ammonia	4.41	0.17
Exempt Solvents	1.76	0.60

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**
Emissions not in permit emission caps:				
31F	Alky Unit Fugitives (4)	HF	0.13	0.55
168	Oleflex CCR	Sulfuric Acid	0.01	0.01
		HCl	0.06	0.28
		Chlorine	0.01	0.04
121	HOC Scrubber	Sulfuric Acid	49.00	214.6
155	CRU CCR	HCl	0.10	0.29
Emissions in permit emission caps:				
REFFUG - includes: 1F, 2F, 4F, 11F, 12F, 13F, 18F, 20F, 21/22F, 30B02F, 30B03F, 31F, 36F, 37F, 38F, 41/46/24F, 47F, 47PSA, 48F, 49F, 175, 52F, 133F, DOCKS, FUEL DRUM, GBF, LPG STGF, MVRUF, T1F, T2/2AF, T3F, TRKRACKFUG, 201	Refinery Fugitives VOC Subcaps (4)	VOC	46.99	205.8
37, 9, 10, 11, 12, 13, 15, 16, 17, 142, 112, TK-114, 173, 174, 46, 48, 60, 63, 61, 64, 129, 70, 140, 71, 72, 93, 94, TK-51, 88, 89, 90, 91, 92, 156, 157, 164, 165, 196, 197, 198, 169, 166, 95, 96, 69, 5, 6, 7, 8, 34, 35, 36	Tanks Subcaps	VOC	232.7	289.6

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**
1	Heater - Crude Heater (01-H-01)	NO_x	5.09	19.24
		VOC	0.68	2.90
		SO_2	2.20	6.43
		CO	6.33	20.13
		PM/PM_{10}	0.94	4.00
131	Heater - Crude Preflash (01-H-02)	NO_x	1.51	6.29
		VOC	0.08	0.35
		SO_2	0.25	0.64
		CO	0.62	2.71
		PM/PM_{10}	0.11	0.49
132	Heater - Crude Stabilizer (01-H-03)	NO_x	0.48	2.06
		VOC	0.03	0.11
		SO_2	0.08	0.25
		CO	0.17	0.72
		PM/PM_{10}	0.04	0.15
74	Vacuum Heater	NO_x	5.62	18.83
		VOC	0.50	1.69
		SO_2	1.44	3.34
		CO	4.68	15.69
		PM/PM_{10}	0.70	2.34
114	Heater - Desalter Heater (11-H-01)	NO_x	6.69	20.71
		VOC	0.60	1.86
		SO_2	1.93	4.13
		CO	5.58	17.26
		PM/PM_{10}	0.83	2.57
115A/B	HDS Heaters	NO_x	10.72	42.86
		VOC	0.96	3.85
		SO_2	3.10	8.54
		CO	8.93	32.91
		PM/PM_{10}	1.33	5.32
	Heater - HDS Pre-Heater (12-H-02)	NO_x	2.14	8.28

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

116				
		VOC	0.10	0.37
		SO_2	0.31	0.83
		CO	0.29	1.10
		PM/PM_{10}	0.13	0.51
118	Hydrogen Reformer Heater	NO_x	60.19	284.40
		VOC	9.05	41.85
		SO_2	43.55	122.64
		CO	50.16	220.73
		PM/PM_{10}	7.47	35.80
153	Heater - HR Boiler (30-B-02)	NO_x	22.56	82.34
		VOC	1.52	3.99
		SO_2	4.89	10.66
		CO	8.46	28.94
		PM/PM_{10}	2.10	5.51
117	Heater - Alky Frac. Reb. (31-H-01)	NO_x	5.12	19.86
		VOC	0.77	2.97
		SO_2	2.47	6.60
		CO	2.28	8.83
		PM/PM_{10}	1.06	4.11
120	Heater - Butamer Heater (36-H-01)	NO_x	2.00	4.30
		VOC	0.09	0.19
		SO_2	0.29	0.41
		CO	0.27	0.98
		PM/PM_{10}	0.12	0.26
162	Oleflex Heater	NO_x	17.72	65.75
		VOC	2.10	8.41
		SO_2	6.75	18.66
		CO	19.45	69.49
		PM/PM_{10}	2.90	11.62
119	Heater - Sulften Heater (46-H-01)	NO_x	1.71	5.21
		VOC	0.08	0.24
		SO_2	0.24	0.63
		CO	0.35	1.49
		PM/PM_{10}	0.11	0.32
150	HCU Heater	NO_x	12.19	48.76

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

		VOC	1.10	4.38
		SO_2	3.52	9.72
		CO	6.10	24.38
		PM/PM_{10}	1.51	6.06
151	Heater - NHU Heater (48-H-01)	NO_x	3.52	12.72
		VOC	0.19	0.69
		SO_2	0.61	1.52
		CO	1.06	3.82
		PM/PM_{10}	0.26	0.95
152	CRU Heater	NO_x	36.90	133.06
		VOC	3.03	10.25
		SO_2	11.10	25.69
		CO	16.85	57.02
		PM/PM_{10}	4.18	14.16
172	Heater - RSU Heater (49-H-71)	NO_x	3.96	15.26
		VOC	0.36	1.37
		SO_2	1.14	3.04
		CO	3.30	12.72
		PM/PM_{10}	0.49	1.90
49-H-90	Heater - C7 Splitter Reb. (49-H-90)	NO_x	3.99	15.46
		VOC	0.57	2.18
		SO_2	1.84	4.83
		CO	5.32	16.82
		PM/PM_{10}	0.79	3.01
195	Heater - GDU Charge Heater (52-H-01)	NO_x	3.35	14.69
		VOC	0.89	3.34
		SO_2	2.87	7.40
		CO	13.15	34.29
		PM/PM_{10}	1.23	4.61
124	API Separator	NO_x	0.19	0.84
		VOC	0.43	2.08
		SO_2	0.03	0.13
		CO	1.65	7.22
168	$Oleflex_x$CCR	SO_2	0.04	0.19

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

V-201	Unloading Vent	VOC	0.04	0.16
122	Cooling Tower - HOC	VOC	6.09	26.67
123	Cooling Tower - Alky	VOC	1.26	5.52
167-CT	Cooling Tower - BUP	VOC	1.81	7.91
1CT	Cooling Tower - Crude	VOC	0.21	0.92
73-P-3	Engine - 73-P-3	NO_x	11.63	15.35
		VOC	1.21	1.59
		SO_2	0.98	1.30
		CO	3.21	4.23
		PM/PM_{10}	1.06	1.39
73-P-4	Engine - 73-P-4	NO_x	10.42	18.09
		VOC	1.08	1.88
		SO_2	0.88	1.53
		CO	2.87	4.99
		PM/PM_{10}	0.95	1.64
73-P-5	Engine - 73-P-5	NO_x	11.63	29.12
		VOC	1.21	3.02
		SO_2	0.98	2.46
		CO	3.21	8.03
		PM/PM_{10}	1.06	2.64
72-P-6	Engine - 72-P-6	NO_x	11.63	11.64
		VOC	1.21	1.21
		SO_2	0.98	0.98
		CO	3.21	3.21
		PM/PM_{10}	1.06	1.06
72-P-7	Engine - 72-P-7	NO_x	11.63	2.25
		VOC	1.21	0.23
		SO_2	0.98	0.19
		CO	3.21	0.62
		PM/PM_{10}	1.06	0.20
72-P-8	Engine - 72-P-8	NO_x	11.63	2.79

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

		VOC	1.21	0.29
		SO_2	0.98	0.24
		CO	3.21	0.77
		PM/PM_{10}	1.06	0.25
72-P-9	Engine - 72-P-9	NO_x	11.63	17.32
		VOC	1.21	1.80
		SO_2	0.98	1.47
		CO	3.21	4.77
		PM/PM_{10}	1.06	1.57
72-P-10	Engine - 72-P-10	NO_x	8.36	26.31
		VOC	0.87	2.73
		SO_2	0.71	2.23
		CO	2.30	7.25
		PM/PM_{10}	0.76	2.39
72-P-11	Engine - 72-P-11	NO_x	11.75	23.34
		VOC	1.22	2.42
		SO_2	0.99	1.97
		CO	3.24	6.43
		PM/PM_{10}	1.07	2.12
72-P-14A	Engine - 72-P-14A	NO_x	11.63	14.17
		VOC	1.21	1.47
		SO_2	0.98	1.20
		CO	3.21	3.91
		PM/PM_{10}	1.06	1.29
72-P-14B	Engine - 72-P-14B	NO_x	10.32	17.20
		VOC	1.07	1.78
		SO_2	0.87	1.45
		CO	2.85	4.74
		PM/PM_{10}	0.94	1.56
50-P-16	Engine - 50-P-16	NO_x	10.90	4.74
		VOC	1.13	0.49
		SO_2	0.92	0.40
		CO	3.01	1.31
		PM/PM_{10}	0.99	0.43
50-P-20	Engine - 50-P-20	NO_x	10.90	9.61

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

		VOC	1.13	1.00
		SO_2	0.92	0.81
		CO	3.01	2.65
		PM/PM_{10}	0.99	0.87
16-P-04	Engine - 16-P-04	NO_x	8.00	0.21
		VOC	0.83	0.02
		SO_2	0.68	0.02
		CO	2.20	0.06
		PM/PM_{10}	0.73	0.02
16-P-07	Engine - 16-P-07	NO_x	9.69	0.15
		VOC	1.01	0.02
		SO_2	0.82	0.01
		CO	2.67	0.04
		PM/PM_{10}	0.88	0.01
126, 158, 127	Main Flare, Ground Flare, BUP Flare Subcaps	NO_x	62.17	11.48
		VOC	220.25	136.78
		SO_2	18.82	4.70
		CO	450.94	76.87
31	Loading - Heavy Oil	VOC	16.45	4.72
SHIP FUG	Loading - Ships Fugitives (4)	VOC	186.57	91.74
VRU	Loading - MVRU	VOC	33.74	23.13
TRUCKFUG	Loading - Truck Fugitives (4)	VOC	11.88	10.87
TRUCKCOMB	Loading - Truck Combustor	NO_x	6.98	7.41
		VOC	8.19	9.41
		SO_2	0.01	0.01
		CO	13.96	11.44
AE-49601A/B	AE-49601A/B Analyzer Vent	VOC	0.01	0.01
AE-49900A/B	AE-49900A/B Analyzer Vent	VOC	0.01	0.01
AE-49901A/B	AE-49901A/B Analyzer Vent	VOC	0.01	0.01

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

121	HOC Belco Scrubber	NO_x	356.20	473.81
		VOC	28.02	115.53
		SO_2	203.53	420.09
		CO	889.96	1470.33
		PM/PM_{10}	120.32	527.00
121	SRU Incinerators	NO_x	54.64	142.8
		VOC	0.96	3.13
		SO_2	191.3	674.9
		CO	177.4	392.1
		PM/PM_{10}	1.34	4.39

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

Exempt Solvents - carbon compounds that have been excluded from the definition of volatile organic compound

NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide
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 PM greater than 10 microns is emitted.
HF - hydrogen flouride
H_2S - hydrogen sulfide
H_2SO_4 - sulfuric acid
HCl - hydrochloric acid
Cl_2 - chlorine
NH_3 - ammonia

(4) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(5) The annual limits tons per year apply to calendar year 2010 and for each rolling 12-month period starting January 2011. The MSS emission caps are independent of the routine operating emission caps. Authorized emissions of a pollutant from facilities in this permit is the sum of the emission cap and the MSS emission cap.

Dated: March 5, 2012

ATTACHMENT 1

Permit Numbers 38754 and PSDTX324M13

Permit Emission Points by Type

Category: Fired Units

EPN	Description
1	Crude Heater
74	Vacuum Unit Heater
114	Desalter Heater
115	HDS Charge Heaters
116	HDS Heavy Oil Preheater
117	Alky Fract Reboiler
118	Hydrogen Reformer Heater
119	Sulften Heater
120	Butamer Heater
121	HOC (incinerator and scrubber stack)
124	API Separator Combustor
131	Crude Preflash Heater
132	Crude Stabilizer Heater
150	HCU Heater
151	NHT Heater
152	CRU Heaters
153	Boiler 30-B-02
162	Oleflex Heaters
172	RSU Heater
49H90	C7 Splitter Reboiler
TRUCKCOMB	Truck Loading Combustor
195	GD Charge Heater
73-P-3	Diesel Pump
73-P-4	Diesel Pump
73-P-5	Diesel Pump
72-P-6	Diesel Pump
72-P-7	Diesel Pump
72-P-8	Diesel Pump
72-P-9	Diesel Pump
72-P-10	Diesel Pump
72-P-11	Diesel Pump
72-P-14A	Diesel Pump
72-P-14B	Diesel Pump
50-P-16	Diesel Pump
50-P-20	Diesel Pump
16-P-04	Diesel Pump

16-P-07	Diesel Pump

Category: Flares	EPN	Description
	126	Main Flare
	127	MTBE Flare
	128	Halo Flare (Pilots Only)
	135	Acid Gas Flare (Pilots Only)
	158	Ground Flare

Category: Tanks	EPN	Description
	5	Tank No. 93
	6	Tank No. 94
	7	Tank No. 95
	8	Tank No. 96
	9	Tank No. 101
	10	Tank No. 102
	11	Tank No. 103
	12	Tank No. 104
	13	Tank No. 105
	15	Tank No. 108
	16	Tank No. 109
	17	Tank No. 110
	34	Tank No. 97
	35	Tank No. 98
	36	Tank No. 99
	37	Tank No. 100
	46	Tank No. 137
	48	Tank No. 139
	TK-51	Tank No. 51
	60	Tank No. 14
	61	Tank No. 15
	63	Tank No. 149
	64	Tank No. 150
	69	Tank No. 9
	70	Tank No. 16
	71	Tank No. 17
	72	Tank No. 18
	88	Tank No. 57
	89	Tank No. 58
	90	Tank No. 59
	91	Tank No. 60
	92	Tank No. 61

Category: Tanks (cont'd.)	EPN	Description
	93	Tank No. 19
	94	Tank No. 20
	95	Tank No. 77
	96	Tank No. 78
	TK-112	Tank No. 112
	TK-114	Tank No. 114
	129	Tank No. 156
	140	Tank No. 161
	142	Tank No. 111
	156	Tank No. 62
	157	Tank No. 63
	164	Tank No. 64
	165	Tank No. 65
	166	Tank No. 76
	169	Tank No. 75
	173	Tank No. 115
	174	Tank No. 116
	196	Tank No. 70-TK-66
	197	Tank No. 70-TK-67
	198	Tank No. 70-TK-68

Category: Fugitive	EPN	Description
	1F	Crude Unit
	2F	Vacuum Unit
	4F	LEU
	11F	Desalter Unit
	12F	HDS Unit
	13F	SMR
	18F	HRLEU Unit
	20F	LRU
	21/22F	HOC Unit
	30B02F	30-B-02
	30B03F	30-B-03
	31F	HF Alkylation Unit
	36F	Butamer Unit
	37F	MTBE
	38F	Oleflex

Category: Fugitive (cont'd.)	EPN	Description
	41/46/24F	SULF/SEU/SRU
	47F	HCU
	47PSAF	PSA
	48F	NHT
	49F	CRU
	54F	MTBE/TAME Unit
	133F	Powerhouse
	175	49-RSU/XFU
	FUG-DOCKS	Docks
	FUELDRM	Fuel Gas Drum
	GBF	Gas Blending
	LPGSTGF	LPG Storage
	MVRUF	MVRU
	T1F	Terminal 1
	T2/2AF	Terminal 2/2A
	T3F	Terminal 3
	TRKRACKFUG	Truck Rack
	ATU3FUG	Amine
	SRU3FUG	SRU
	SCOTFUG	SCOT
	GD-FUG	Gasoline Desulfurization
	LPGSTGF	Propane Pump Fugitives
	201	Railcar Unloading

Category: Loading	EPN	Description
	VRU	Marine loading VRU
	31	Barge Loading (Heavy Oil)
	SHIP FUG	Ship Dock Fugitives
	TRUCKFUG	Truck Loading
	Loading-East	Loading East

Category: Other	EPN	Description
	1CT	CU/VRU Cooling Tower
	122	HOC Cooling Tower
	123	ALKY Cooling Tower
	167-CT	BUP Cooling Tower

Category: Other (cont'd.)	EPN	Description
	AE-49601A/B	Analyzer Vent AE-49601A/B
	AE-49900A/B	Analyzer Vent AE-49900A/B
	AE-49901A/B	Analyzer Vent AE-49901A/B
	V-201	Unloading Vent (MSS only)

Dated: December 10, 2010