Emission Sources - Maximum Allowable Emission Rates

Permit Number 2937 and PSDTX1023M2

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, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Emission Caps (7)		SO_2	160.75	702.24
		VOC	1,578.04	817.60
		NO_x	218.50	833.04
		CO	357.18	1,432.27
		PM_{10}	45.36	173.04
		H_2S	2.72	11.91
		HCl	0.21	0.06
		Cl_2	0.06	0.02
		Benzene	37.2	25.15
		Ammonia	0.17	0.75
MSS Caps (6)		CO	4255.61	52.71
		NO_x	131.87	1.97
		VOC	883.66	39.20
		SO_2	1087.5	37.12
		H_2S	6.45	0.19
		PM	76.7	0.4
		Sulfuric Acid	10.95	0.26
		Ammonia	4.41	0.09
		Exempt Solvents	1.76	0.6
REFFUG	Refinery Fugitives Subcap (5)	VOC	55.82	244.50
Various	Tanks Subcap	VOC	198.61	42.15
EP-B-1	Boiler - C8 Boiler No. 1	NO_x	5.90	18.05

		VOC	0.91	3.24
		SO_2	4.39	5.80
		CO	14.32	25.53
		$PM/PM_{2.5}/PM_{10}$	1.26	4.48
EP-B-2	Boiler - C8 Boiler No. 2 (EP-B-2)	NO_x	5.90	18.05
		VOC	0.91	3.24
		SO_2	4.39	5.80
		CO	14.32	25.53
		$PM/PM_{2.5}/PM_{10}$	1.26	4.48
B-4	Boiler - C6B Boiler No. 4 (West) (169-B-4)	NO_x	2.70	11.83
		VOC	0.49	2.13
		SO_2	2.90	4.70
		CO	7.39	25.26
		$PM/PM_{2.5}/PM_{10}$	0.67	2.94
EP-B-5	Boiler - C8 Boiler No. 5 (EP-B-5)	NO_x	8.45	31.73
		VOC	1.30	5.19
		SO_2	6.29	10.20
		CO	20.50	89.78
		$PM/PM_{2.5}/PM_{10}$	1.80	7.17
B-5	Boiler - C6B Boiler No. 5 (East) (169-B-5)	NO_x	2.70	11.83
		VOC	0.49	2.13
		SO_2	2.90	4.70
		CO	7.39	25.26
		$PM/PM_{2.5}/PM_{10}$	0.67	2.94
QH-125	No. 2 Reformer Heaters	NO_x	3.60	15.27
		VOC	0.55	2.35
		SO_2	3.31	3.77

		CO	7.58	10.62
		$PM/PM_{2.5}/PM_{10}$	0.77	3.25
27-H-1	Heater - C8 BTX Clay Twr (127-H-1)	NO_x	0.68	2.58
		VOC	0.03	0.12
		SO_2	0.15	0.21
		CO	0.41	0.78
		$PM/PM_{2.5}/PM_{10}$	0.04	0.16
44-H-1	Heater - C7 GOT Chrg. (144-H-1)	NO_x	4.18	16.10
		VOC	0.64	2.48
		SO_2	2.79	3.97
		CO	9.61	14.24
		$PM/PM_{2.5}/PM_{10}$	0.89	3.43
37-H-1	Heater - C7 Kero HDS Chrg. (137-H-1)	NO_x	1.98	8.65
		VOC	0.11	0.47
		SO_2	0.46	0.65
		CO	1.06	1.81
		$PM/PM_{2.5}/PM_{10}$	0.15	0.64
39-H-1	Heater - C7 No. 4	NO_x	3.99	17.48
		VOC	0.22	0.94
		SO_2	0.93	1.51
		CO	3.47	7.61
		$PM/PM_{2.5}/PM_{10}$	0.30	1.30
Q10-H-1	Heater - C6B SMR Heater (129-H-1) Hydrobon Chrg. (139-H-1)	NO_x	8.28	36.26
		VOC	1.28	4.88
		SO_2	7.62	12.36
		CO	18.48	34.09
		$PM/PM_{2.5}/PM_{10}$	1.76	6.74

7-H-2	Heater - C7 Coker Chrg. (107-H-2)	NO_x	9.10	31.54
		VOC	0.82	2.83
		SO_2	3.53	4.54
		CO	13.19	22.87
		$PM/PM_{2.5}/PM_{10}$	1.13	3.92
44-H-2	Heater - C7 GOT Frac. Reb. (144-H-2)	NO_x	4.79	20.97
		VOC	0.22	0.94
		SO_2	0.93	1.51
		CO	3.47	7.61
		$PM/PM_{2.5}/PM_{10}$	0.30	1.30
37-H-2	Heater - C7 Kero HDS Frac.Reb. (137-H-2)	NO_x	1.37	5.34
		VOC	0.07	0.28
		SO_2	0.32	0.52
		CO	1.08	1.74
		$PM/PM_{2.5}/PM_{10}$	0.10	0.38
39-H-2	Heater - C7 No. 4 Hydrobon Reb. (139-H-2)	NO_x	3.78	16.57
		VOC	0.20	0.89
		SO_2	0.88	1.43
		CO	3.29	7.21
		$PM/PM_{2.5}/PM_{10}$	0.28	1.23
Q11-H-3001	Heater - C6B HCU Deb. Reb. (129-H-3001)	NO_x	3.84	16.82
		VOC	0.17	0.76
		SO_2	1.03	1.67
		CO	3.15	6.89
		$PM/PM_{2.5}/PM_{10}$	0.24	1.04

Q11-H-3002	Heater - C6B HCU Fract.Reb. (129-H-3002)	NO_x	3.84	16.82
		VOC	0.17	0.76
		SO_2	1.03	1.67
		CO	3.15	6.89
		$PM/PM_{2.5}/PM_{10}$	0.24	1.04
Q11-H-301	Heater - C6B HCU Rx Chrg. (129-H-301)	NO_x	2.25	6.47
		VOC	0.49	1.40
		SO_2	2.90	3.09
		CO	8.85	12.72
		$PM/PM_{2.5}/PM_{10}$	0.67	1.93
44-H-3	Heater - C7 GOT Stabilizer (144-H-3)	NO_x	1.74	6.28
		VOC	0.14	0.54
		SO_2	0.62	0.85
		CO	1.81	2.32
		$PM/PM_{2.5}/PM_{10}$	0.20	0.74
Q3-H-3	No. 2 Reformer HDS Heaters	NO_x	7.30	25.43
		VOC	0.39	1.37
		SO_2	2.35	2.83
		CO	5.31	7.80
		$PM/PM_{2.5}/PM_{10}$	0.54	1.89
39-H-3A	Heater - C7 No. 4 Plat. Charge (139-H-3A)	NO_x	4.09	10.64
		VOC	0.63	1.64
		SO_2	2.73	2.62
		CO	9.34	14.94
		$PM/PM_{2.5}/PM_{10}$	0.87	2.26
39-H-3B	Heater - C7 No. 4 Plat. IntHtr. (139-H-3B)	NO_x	2.62	11.47
		VOC	0.40	1.49

		SO_2	1.74	2.34
		CO	4.62	6.89
		$PM/PM_{2.5}/PM_{10}$	0.56	2.44
39-H-3C	C7 No. 4 Plat. IntHtr. (139-H-3C/D)	NO_x	8.90	21.39
		VOC	0.48	1.15
		SO_2	2.07	1.85
		CO	7.10	10.74
		$PM/PM_{2.5}/PM_{10}$	0.66	1.59
8-H-3	Heater - C7 No. 4 Vacuum Chrg. (108-H-3)	NO_x	3.47	11.99
		VOC	0.19	0.55
		SO_2	0.82	1.30
		CO	2.16	4.04
		$PM/PM_{2.5}/PM_{10}$	0.26	0.76
8-H-4	Heater - C7 No. 4 Crude Chrg. (108-H-4)	NO_x (8)	19.37	54.75
		NO_x (9)	6.78	19.16
		VOC	1.04	2.95
		SO_2	4.52	4.73
		CO	16.86	23.82
		$PM/PM_{2.5}/PM_{10}$	1.44	4.08
Q3-H-4A/B	Heater - C6B No. 2 Ref. Split. (116-H-4A/B)	NO_x	3.99	17.30
		VOC	0.78	3.39
		SO_2	1.04	1.67
		CO	2.91	6.30
		$PM/PM_{2.5}/PM_{10}$	0.30	1.29
8-H-5	Heater - C7 No. 4 Vacuum Chrg. (108-H-5)	NO_x	1.72	7.53
		VOC	0.37	1.62
		SO_2	1.60	2.60

		CO	5.99	13.11
		$PM/PM_{2.5}/PM_{10}$	0.51	2.25
8-H-6	Heater - C7 No. 4 Crude Chrg. (108-H-6)	NO_x	10.01	21.90
		VOC	1.54	4.72
		SO_2	6.67	7.56
		CO	24.89	38.12
		$PM/PM_{2.5}/PM_{10}$	2.13	6.53
39-H-7	Heater - C7 No. 4 Plat.Stab.Reb. (139-H-7)	NO_x	1.27	4.55
		VOC	0.19	0.70
		SO_2	0.84	1.12
		CO	2.94	5.30
		$PM/PM_{2.5}/PM_{10}$	0.27	0.97
H-TK-54	Heater - Tank TK-54 Heater	NO_x	0.40	0.86
		VOC	0.02	0.05
		SO_2	0.05	0.06
		CO	0.32	0.73
		$PM/PM_{2.5}/PM_{10}$	0.03	0.06
H-TK-70	Heater - Tank TK-70 Heater	NO_x	0.40	0.86
		VOC	0.02	0.05
		SO_2	0.05	0.06
		CO	0.32	0.73
		$PM/PM_{2.5}/PM_{10}$	0.03	0.06
QL-10	Heater - C6B No. 4 Plat. Spltter (154-H-10)	NO_x	2.09	5.8
		VOC	1.49	5.81
		SO_2	2.18	2.24
		CO	6.10	8.45
		$PM/PM_{2.5}/PM_{10}$	0.62	1.73

148H-01-02	ULSD Heaters	NO_x	4.13	17.48
		VOC	0.64	2.69
		SO_2	2.75	4.31
		CO	7.90	19.90
		$PM/PM_{2.5}/PM_{10}$	0.88	3.72
SMR2	SMR2 Heater	NO_x	23.59	103.32
		VOC	3.63	15.92
		SO_2	15.71	25.49
		CO	43.72	104.71
		$PM/PM_{2.5}/PM_{10}$	5.02	22.00
83-CT1	Cooling Tower - Complex 8	VOC	2.52	7.36
		$PM/PM_{2.5}/PM_{10}$	3.02	12.24
88-CT7	Cooling Tower - Complex 7	VOC	2.53	7.66
		$PM/PM_{2.5}/PM_{10}$	4.78	19.05
Q-CT4	Cooling Tower - Hydrocracker	VOC	0.67	2.76
		$PM/PM_{2.5}/PM_{10}$	1.10	4.46
Q-CT5	Cooling Tower - No. 2 Reformer	VOC	0.46	3.31
		$PM/PM_{2.5}/PM_{10}$	0.77	3.13
Q-CT8	Cooling Tower - BTX	VOC	0.50	1.47
		$PM/PM_{2.5}/PM_{10}$	0.80	3.26
ASPH-RCLDG	Asphalt	VOC	0.31	0.01
ASPH-TLDG	Asphalt	VOC	0.31	0.01
LATEX-TLDG	Latex	VOC	0.31	0.01
RC-RACK1	Railcar Loading Rack 1	VOC	0.37	0.01
SULF-RCLDG	Sulfur	VOC	0.02	0.01
SULF-TLDG	Sulfur	VOC	0.02	0.01
MARINE-LDG	Marine Loading	VOC	478.01	63.41

PD-6	Loading - Dock 6	VOC	77.50	7.04
TO-3	Dock Combustor TO-3	NO_x	15.68	18.29
		VOC	69.90	23.53
		SO_2	0.06	0.23
		CO	11.18	9.75
		$PM/PM_{2.5}/PM_{10}$	0.75	0.91
PMA-LOAD	Loading - PMA Asphalt	VOC	0.07	0.16
TT-RACK1	Loading - Truck Rack	VOC	4.33	2.01
TO-2	Truck Rack Thermal Oxidizer	NO_x	3.25	8.83
		VOC	9.69	7.88
		SO_2	0.01	0.04
		CO	1.74	4.71
		$PM/PM_{2.5}/PM_{10}$	0.16	0.44
Flare-1, HCU-FL1, REF2-FL1, WP-FLARE1, SRU1-FLARE, SRU2-FLARE, SWS-FLARE	Flares Subcap	NO_x	4.48	19.64
		VOC	26.88	117.75
		SO_2	1.62	7.09
		CO	23.17	101.47
SRU1-INCIN, SRU2-INCIN	SRUs Subcap	NO_x	5.35	23.44
		VOC	0.29	1.26
		SO_2	66.77	292.47
		CO	4.41	19.30
		$PM/PM_{2.5}/PM_{10}$	0.40	1.75
FU-1	DCU Coke Handling Fugitives	$PM/PM_{2.5}/PM_{10}$	0.62	2.52
2REGENVENT	2REGENVENT	VOC	0.01	0.01
4REGENVENT	4REGENVENT	VOC	0.02	0.07
91-D-1	Slurry Tank	VOC	0.01	0.01

	(Sludge Conc)			
91-D-2	Make-Up Tk (Sludge Conc)	VOC	0.01	0.01
91-D-3	Charge Tank (Sludge Conc)	VOC	0.01	0.01
LS-1	WWTP Lift Station (Covered)	VOC	0.08	0.36
SUMP-1	WWTP Sump	VOC	0.01	0.01
WWS-EP	EP CPI Separator (covered)	VOC	0.13	0.55
91-D-4	WP Sludge Concentration Tank	VOC	0.06	0.28
91-D-5	WP Sludge Concentration Tank	VOC	0.06	0.28
SUMP-2	WWTP DAF Float & Bottoms Collection Pump sump	VOC	0.01	0.01
SUMP-3	EP CPI Inlet Sump and Excess Inflow Pump	VOC	0.01	0.01
90-TK-61	Sludge Holding Tank	VOC	0.01	0.01
90-TK-65	DAF Tank	VOC	1.09	4.77
90-TK-66	Bioreactor Tank	VOC	2.14	9.37
90-TK-67	Bioreactor Tank	VOC	1.94	8.51
90-TK-68	Clarifier Tank	VOC	0.01	0.03
90-TK-69	Clarifier Tank	VOC	0.01	0.03
90-TK-85	DAF Tank	VOC	1.09	4.77
90-TK-64	WWTP Biosludge Thickener	VOC	0.01	0.01
90-TK-78	WWTP Clarified Activated Biosludge Skimmings Tank	VOC	0.01	0.01
90-TK-60	Aerobic digester	VOC	0.34	1.49
T-109	Tank 109	VOC	0.01	0.01
QP-SUMP1	QP Oily Water System Collection Sump & Pump Out System	VOC	0.01	0.01
SUMP-4	WP Oily Water System Collection Sump and Pump Out System	VOC	0.01	0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
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 - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
NH_3 - ammonia
Cl_2 - chlorine
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) The annual limits (TPY) apply to the period from August 1, 2010 through July 31, 2011 and for each rolling 12-month period thereafter. The maintenance, startup, and shutdown (MSS) emission caps are independent of the routine operating emission caps. Authorized emissions of a pollutant from facilities in this permit are the sum of the emission cap and the MSS emission cap. The emission points and activities authorized under these emission caps are identified in Attachment 4 to this permit.
(7) 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 CO.
(8) Emission rate prior to December 31, 2017.
(9) Emission rate after December 31, 2017.

Date: January 10, 2017

ATTACHMENT 1

Permit Numbers 2937 and PSDTX1023M2

Contaminants, Emission Point Numbers,
and Source Names

This table lists the facility identification numbers, emission point numbers, source names, and emission cap contaminants emitted for all emission points on the applicant's property covered by this permit.

Facility Identification Number	Emission Point Number (1)	Source Name (2)	Emission Cap Contaminants Emitted (3)							
			SO_2	VOC	NO_x	CO	PM	H_2S	NH_3	other
B-4A	B-4	COMPLEX 6 WEST BOILER	X	X	X	X	X			
B-5A	B-5	COMPLEX 6 EAST BOILER	X	X	X	X	X			
B-1	EP-B-1	COMPLEX 8 BOILER No. 1	X	X	X	X	X			
B-2	EP-B-2	COMPLEX 8 BOILER No. 2	X	X	X	X	X			
B-5	EP-B-5	COMPLEX 8 BOILER No. 5	X	X	X	X	X			
CT1	83-CT1	COMPLEX 8MAIN COOLING TOWER		X			X			
CT2	84-CT2	ALKY. COOLING TOWER		X			X			
CT7	88-CT7	COMPLEX7 MAIN COOLING TOWER		X			X			
CT4	Q-CT4	H.C.U. COOLING TOWER		X			X			
CT5	Q-CT5	No. 2 REFORMER COOLING TOWER		X			X			
CT8	Q-CT8	TBA., SULFO., & BTX. COOLING TOWER		X			X			
BLR-HSE	BLRHSE-FE	BOILER HOUSE FUGITIVES		X				X		
BTX1	BTX1-FE	SULFOLANE BTX. UNIT FUGITIVES		X						B
COKER1	COKER1-FE	DELAYED COKER UNIT FUGITIVES		X				X	X	B
CRU4&VAC4	CRUVAC4-FE	No. 4 CRUDE & VACUUM UNIT FUGITIVES		X				X	X	B
DEOCT	DEOCT-FE	No. 4 PLAT. SPLT. FUGITIVES		X						B
DIST1	DIST1-FE	KEROSENE HDS FUGITIVES		X				X	X	B
DCOK-11	DOCK11-FE	MARINE LOADING (DOCK 11) FUGITIVES		X						B
DOCK-3	DOCK3-FE	MARINE LOADING (DOCK 3) FUGITIVES		X						B
DOCK-4	DOCK4-FE	MARINE LOADING (DOCK 4) FUGITIVES		X						B
DOCK-6	DOCK6-FE	MARINE LOADING (DOCK 6) FUGITIVES		X						
DOCK-7	DOCK7-FE	MARINE LOADING (DOCK 7) FUGITIVES		X						B
EP-FLR-CVS	EP-FLR-FE	COMPLEX 8 FLARE FUGITIVES		X				X		B
FCCU1	FCCU1-FE	F.C.C.U. FUGITIVES		X				X	X	B
GOT1	GOT1-FE	DIESEL HDS FUGITIVES		X				X	X	B
HCU	HCU-FE	HYDROCRACKER UNIT FUGITIVES		X				X	X	B
HCUFLR-CVS	HCU-FLR-FE	HYDROCRACKER FLARE HEADER FUGITIVES		X				X		
KERO1	KERO1-FE	KEROSENE H.D.S. FUGITIVES		X				X	X	B
LEF1	LEF1-FE	No. 1 L.E.F. @ S.S. (XYLENE TOWER FUGITIVES		X						
LEU1	LEU1-FE	No. 1 L.E.U. FUGITIVES		X				X	X	B

LEU2	LEU2-FE	No. 2 L.E.U. FUGITIVES		X			X	X	B
MEROX-WP	MEROXWP-FE	F.C.C. GASOLINE $MERO_X$ FUGITIVES		X			X		
NEWBZ-FE	NEWBZ-FE	BENZENE SWS FUGITIVES		X			X	X	B
NEWSWS-FE	NEWSWS-FE	SOUR WATER STRIPPER FUGITIVES		X			X	X	B
NONENE1	NONENE1-FE	NONENE UNIT FUGITIVES		X					
PSA-FE	PSA-FE	PRESSURE SWING ABSORBER		X					B
Q-BTX	QBTX-FE	SULFOLANE & BTX. UNIT FUGITIVES		X					B
Q-NAPHDS2	QHDS2-FE	No. 2 NAPHTHA H.D.S. FUGITIVES		X			X		
Q-NAP SPLT	QNAPSPL-FE	No. 2 NAPHTHA (No. 2 REFORMER). SPLITTER FUGITIVES		X			X		
Q-REF2	QREF2-FE	No. 2 REFORMER FUGITIVES		X					
Q-SULFO	QSULFO-FE	SULFOCANE FUGITIVES		X					B
RAFF1	RAFF1-FE	No. 1 RAFFINATE SPLITTER		X					
RAFF2	RAFF2-FE	No. 2 RAFFINATE SPLITTER		X					
REF2FL-CVS	REF2-FL-FE	No. 2 REFORMER FLARE HEADER		X			X		B
REF4	REF4-FE	No. 4 HYDROBON & PLATFORMER FUGITIVES		X			X	X	B
SMR	SMR-FE	HYDROGEN PRODUCTION (S.M.R.) FUGITIVES		X			X	X	B
SRU1	SRU1-FE	SRU No. 1FUGITIVES		X			X	X	B
SUR2-FE	SRU2-FE	SRU No. 2 FUGITIVES		X			X	X	B
SULFO1	SULFO1-FE	SULFOLANE FUGITIVES		X					B
SWS1	SWS1-FE	S.W.S. UNIT FUGITIVES		X			X	X	B
SWS2-FE	SWS2-FE	BENZENE S.W.S. FUGITIVES		X			X	X	B
TKFM-EPN	TKFMEPN-FE	COMPLEX 8 NORTH TANK FARM FUGITIVES		X					B
TKFM-EPS	TKFMEPS-FE	COMPLEX 8 SOUTH TANK FARM FUGITIVES		X					B
TKFM-QPN	TKFMQPN-FE	COMPLEX 6 NORTH TANK FARM FUGITIVES		X					B
TKFM-WP	TKFMWP-FE	COMPLEX 7 TANK FARM FUGITIVES		X					B
TRUCKRK	TRUCKRK-FE	TRUCK LOADING RACK FUGITIVES		X					
WP-FLR-CVS	WP-FLR-FE	COMPLEX 7 FLARE FUGITIVES		X			X		
H-1FCCU1	12-H-1	F.C.C.U. RAW OIL CHARGE HEATER	X	X	X	X	X		
H-1BTX1	27-H-1	BTX. CLAY TWR. CHARGE HEATER	X	X	X	X	X		
H-1KERO1	37-H-1	KERO. H.D.S. CHARGE HEATER	X	X	X	X	X		
H-2KERO1	37-H-2	KERO. H.D.S. FRAC. REBOILER	X	X	X	X	X		
H-1REF4	39-H-1	No. 4 HYDROCARBON CHRGE. HEATER	X	X	X	X	X		
H-2REF4	39-H-2	No. 4 HYDROBON. STRIPPER REBOILER	X	X	X	X	X		
H-3REF4A	39-H-3A	No. 4 PLATFORMER CHARGE	X	X	X	X	X		

		HEATER									
H-3REF4B	39-H-3B	No. 4 PLATFORMER CHARGE HEATER	X	X	X	X	X				
H-3REF4C	39-H-3C	No. 4 PLATFORMER CHARGE HEATER	X	X	X	X	X				
H-3REF4D	39-H-3C	No. 4 PLATFORMER CHARGE HEATER	X	X	X	X	X				
H-7REF4	39-H-7	No. 4 PLATFORMER STAB. REBOILER	X	X	X	X	X				
H-1GOT1	44-H-1	DIESEL HDS HEATER	X	X	X	X	X				
H-2GOT1	44-H-2	DIESEL HDS HEATER	X	X	X	X	X				
H-3GOT1	44-H-3	DIESEL HDS HEATER	X	X	X	X	X				
H-2COKE1	7-H-2	DELAYED COKER CHARGE HEATER	X	X	X	X	X				
H-3VAC4	8-H-3	No. 4 VACUUM CHARGE HEATER	X	X	X	X	X				
H-4CRU4	8-H-4	No. 4 CRUDE CHARGE HEATER	X	X	X	X	X				
H-5VAC4	8-H-5	No. 4 VACUUM CHARGE HEATER	X	X	X	X	X				
H-6CRU4	8-H-6	No. 4 CRUDE CHARGE HEATER	X	X	X	X	X				
H-TK-47	H-TK-47	TANK 47 HEATER	X	X	X	X	X				
H-TK-48	H-TK-48	TANK 48 HEATER	X	X	X	X	X				
H-TK-54	H-TK-54	TANK 54 HEATER	X	X	X	X	X				
H-TK-70	H-TK-70	TANK 70 HEATER	X	X	X	X	X				
H-4QNAPSPL	Q3-H-4A/B	NAPHTHA SPLT. REBOILER	X	X	X	X	X				
H-3HDS2A	Q3-H-3	No. 2 NAPHTHA H.D.S. HEATER	X	X	X	X	X				
H-3HDS2B	Q3-H-3	S.M.R. HEATER	X	X	X	X	X				
H-3HDS2C	Q3-H-3	H.C.U. DEBUT REBOILER	X	X	X	X	X				
H-1SMR	Q10-H-1	S.M.R. HEATER	X	X	X	X	X				
H-3001HCU	Q11-H-3001	H.C.U. DEBUT REBOILER	X	X	X	X	X				
H-3002HCU	Q11-H-3002	H.C.U. FRAC. REBOILER	X	X	X	X	X				
H-301HCU	Q11-H-301	H.C.U. RX. CHARGE HEATER	X	X	X	X	X				
H-125QREF2A	QH-125	No. 2 REFORMER HEATER	X	X	X	X	X				
H-125QREF2B	QH-125	No. 2 REFORMER HEATER	X	X	X	X	X				
H-125QREF2C	QH-125	No. 2 REFORMER HEATER	X	X	X	X	X				
L-10QHDA	QL-10	No. 4 PLATFORMER SPLITTER HEATER	X	X	X	X	X				
SRU1-INCIN	SRU1-INCIN	SRU No. 1 INCINERATOR	X	X	X	X	X	X			
SRU2-INCIN	SRU2-INCIN	SRU No. 2 INCINERATOR	X	X	X	X	X	X			
ASPH-RCLDG	ASPH-RCLDG	ASPHALT & LATEX RAILCAR LOADING		X							
ASPH-TLDG	ASPH-TLDG	ASPHALT TRUCK LOADING		X							
DOCK-6	PD-6	MARINE LOADING (DOCK 6) FUGITIVES		X							
LATEX-TLDG	LATEX-TLDG	LATEX TRUCK LOADING		X							
MARINE-LDG	MARINE-LDG	MARINE LOADING		X							B
RC-RACK1	RC-RACK1	RAILCAR LOADING		X							
SULF-RCLDG	SULF-RCLDG	SULFUR RAILCAR LOADING		X							
SULF-TLDG	SULF-TLDG	SULFUR TRUCK LOADING		X							

TO2	TO-2	THERMAL OXIDIZER	X	X	X	X	X			B
TO-3	TO-3	NEW MARINE LOADING THERMAL OXIDIZER	X	X	X	X	X			B
TT-RACK	TT-RACK1	TRUCK LOADING RACK		X						B
REG+CO+ESP	12-COSTK	F.C.C.U. & CO BOILER & E.S.P.	X	X	X	X	X			A
REF2-V1	2REGENVENT	No. 2 REFORMER REGEN VENT		X						C
REF4-V4	4REGENVENT	No. 4 PLATFORMER REGEN VENT		X						C
T-123	TK-123	TANK 123		X						
T-124	TK-124	TANK 124		X						
T-125	TK-125	TANK 125		X						
T-126	TK-126	TANK 126		X						
T-131	TK-131	TANK 131		X						
T-132	TK-132	TANK 13_2		X						
T-133	TK-133	TANK 133		X						
T-231	TK-231	TANK 231		X						
T-232	TK-232	TANK 23_2		X						
T-233	TK-233	TANK 233		X						
T-234	TK-234	TANK 234		X						
T-235	TK-235	TANK 235		X						
T-380	TK-380	TANK 380		X						
T-381	TK-381	TANK 381		X						
T-382	TK-382	TANK 38_2		X						
T-383	TK-383	TANK 383		X						
T-29-18	29-TK-18	M.D.E.A. TANK		X						
SWS1-T3	SWS1-T3	SOUR WATER SURGE TANK		X						
T-10	TK-10	TANK 10		X						
T-101	TK-101	TANK 101		X						
T-104	TK-104	TANK 104		X						
T-106	TK-106	TANK 96-TK-014_2		X						
T-107	TK-107	TANK 107		X						B
T-109	TK-109	TANK 109		X						B
T-11	TK-11	TANK 11		X						
T-113	TK-113	TANK 113		X						
T-114	TK-114	TANK 114		X						
T-115	TK-115	TANK 115		X						
T-116	TK-116	TANK 116		X						
T-118	TK-118	TANK 118		X						
T-122	TK-122	TANK 122		X						
T-127	TK-127	TANK 127		X						
T-128	TK-128	TANK 128		X						B
T-134	TK-134	TANK 134		X						
T-135	TK-135	TANK 135		X						
T-138	TK-138	TANK 138		X						
T-151	TK-151	TANK 151		X						B
T-19	TK-19	TANK 19		X						B

T-200	TK-200	TANK 200	X	B
T-202	TK-202	TANK 202	X	B
T-209	TK-209	TANK 209	X	
T-210	TK-210	TANK 210	X	
T-211	TK-211	TANK 211	X	
T-212	TK-212	TANK 212	X	
T-213	TK-213	TANK 213	X	
T-214	TK-214	TANK 214	X	
T-215	TK-215	TANK 215	X	
T-236	TK-236	TANK 236	X	B
T-237	TK-237	TANK 237	X	
T-22	TK-22	TANK 22	X	B
T-23	TK-23	TANK 23	X	
T-25	TK-25	TANK 25	X	
T-310	TK-310	TANK 310	X	
T-311	TK-311	TANK 311	X	
T-312	TK-312	TANK 312	X	
T-325	TK-325	TANK 325	X	
T-327	TK-327	TANK 327	X	
T-328	TK-328	TANK 328	X	
T-332	TK-332	TANK 332	X	
T-354	TK-354	TANK 354	X	
T-47	TK-47	TANK 47	X	
T-48	TK-48	TANK 48	X	
T-500	TK-500	TANK 500	X	
T-501	TK-501	TANK 501	X	
T-502	TK-502	TANK 502	X	
T-503	TK-503	TANK 503	X	
T-504	TK-504	TANK 504	X	
T-505	TK-505	TANK 505	X	B
T-506	TK-506	TANK 506	X	B
T-507	TK-507	TANK 507	X	B
T-508	TK-508	TANK 508	X	
T-509	TK-509	TANK 509	X	B
T-510	TK-510	TANK 510	X	B
T-55	TK-55	TANK 55	X	
T-57	TK-57	TANK 57	X	
T-58	TK-58	TANK 58	X	B
T-7	TK-7	TANK 7	X	
T-75	TK-75	TANK 75	X	
T-76	TK-76	TANK 76	X	B
T-86	TK-86	TANK 86	X	
T-87	TK-87	TANK 87	X	
T-9	TK-9	TANK 9	X	B
T-141	TO-2	TANK 141	X	
T-143	TO-2	TANK 143	X	B

T-144	TO-2	TANK 144		X						B
T-145	TO-2	TANK 145		X						B
E.P. FLARE	EP-FLARE1	COMPLEX 8 FLARE	X	X	X	X		X		B
ALKY-V1	EP-FLARE1	COMPLEX 8 FLARE		X						
BTX1-V1	EP-FLARE1	COMPLEX 8 FLARE		X						B
PPBBMER-V1	EP-FLARE1	COMPLEX 8 FLARE		X						
HCU-FLARE	HCU-FL1	H.C.U. AREA FLARE	X	X	X	X				
REF2-FLARE	REF2-FL1	No. 2 REFORMER AREA FLARE	X	X	X	X		X		B
QBTX-V1	REF2-FL1	No. 2 REFORMER AREA FLARE		X						B
QPSULF-V1	REF2-FL1	No. 2 REFORMER AREA FLARE		X						B
SRU1-FLARE	SRU1-FLARE	SRU No. 1 FLARE	X	X	X	X		X		
SRU2-FLARE	SRU2-FLARE	SRU No. 2 FLARE	X	X	X	X		X		
SWS-FLARE	SWS-FLARE	SOUR H2O STRIP FLARE	X	X	X	X		X		
WP-FLARE	WP-FLARE1	COMPLEX 7 FLARE	X	X	X	X				
SWS1-V2	WP-FLARE1	COMPLEX 7 FLARE	X	X				X	X	
SWS2-V1	WP-FLARE1	COMPLEX 7 FLARE	X	X				X	X	B
ARU1-V1	WP-FLARE1	COMPLEX 7 FLARE	X	X				X	X	
ARU2-V1	WP-FLARE1	COMPLEX 7 FLARE	X	X				X	X	
WP-FLARE2	WP-FLARE2	COMPLEX 7 FLARE	X	X	X	X				
148-H-01	148-H-01	No. 2 DHT CHARGE HEATER	X	X	X	X	X			
148-H-02	148-H-02	No. 2 DHT REBOILER	X	X	X	X	X			
SMR2	SMR2	No. 2 SMR HEATERS 1, 2, AND 3	X	X	X	X	X			
PMA-FE	PMA-FE	ASPHALT BLENDING UNIT FUGITIVES		X						
175-TK-001	175-TK-001	ASPHALT BLENDING UNIT WETTING TANK		X						
175-TK-002	175-TK-002	ASPHALT BLENDING UNIT MIXING TANK		X						
175-TK-003	175-TK-003	ASPHALT BLENDING UNIT MIXING TANK		X						
PMA-LOAD	PMA-LOAD	ASPHALT BLENDING UNIT LOADING		X				X		
DIST2-FE	DIST2-FE	DISTILLATE HYDROTREATER FUGITVES		X				X	X	B
SMR2-FE	SMR2-FE	SMR_2FUGITIVES		X				X	X	B
WWTP	90-TK-61	SLUDGE HOLDING TANK		X						B
WWTP	90-TK-65	DAF TANK		X						B
WWTP	90-TK-66	BIOREACTOR TANK		X						B
WWTP	90-TK-67	BIOREACTOR TANK		X						B
WWTP	90-TK-68	CLARIFIER TANK		X						B
WWTP	90-TK-69	CLARIFIER TANK		X						B
WWTP	90-TK-85	DAF TANK		X						B
WWTP	91-D-1	SLURRY TANK (SLUDGE CONC)		X						B
WWTP	91-D-2	MAKE-UP TK (SLUDGE CONC)		X						B
WWTP	91-D-3	CHARGE TANK (SLUDGE CONC)		X						B
WWTP	LS-1	WWTP LIFT STATION (COVERED)		X						B
WWTP	SUMP-1	WWTP SUMP		X						B

WWTP	T-109	TANK 109		X							B
WWTP	WWS-EP	EP CPI SEPARATOR (COVERED)		X							B
WWTP	91-D-4	WP SLUDGE CONCENTRATION TANK		X							B
WWTP	91-D-5	WP SLUDGE CONCENTRATION TANK		X							B
WWTP	QP-SUMP1	QP OILY WATER SYSTEM COLL. SUMP/PUMP OUT SYS.		X							B
WWTP	SUMP-2	WWTP DAF FLOAT/BOTTOMS COLL. PUMP SUMP		X							B
WWTP	SUMP-3	EP CPI INLET SUMP AND EXCESS INFLOW PUMP		X							B
WWTP	SUMP-4	WP OILY WATER SYSTEM COLL. SUMP/PUMP OUT SYS.		X							B
WWTP	90-TK-64	WWTP BIOSLUDGE THICKENER		X							B
WWTP	90-TK-78	WWTP CLARIFIED ACT. BIOSLUDGE SKIM TANK		X							B
WWTP	90-TK-60	AEROBIC DIGESTER		X							B
CH1	CH1	TRUCK DUMP FUG.						X			
CH2	CH2	HOPPER & CONVEYOR FUGITIVES						X			
CH3	CH3	COKE STOCKPILE FUGITIVES						X			
NH3REF	NH3REF-FE	AMMONIA FUGITIVES								X	
V116T202	Q3-H-4	VENT/HEATER		X							B
FU-1	FU-1	COKE DRUM & CLAM SHELL FUGITIVES						X			
V154T010	QL-10	VENT/HEADEER		X							B

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.
(3) SO_2 - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
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
NH_3 - ammonia
H_2S - hydrogen sulfide
A - sulfuric acid
B - benzene
C - chlorine and hydrogen chloride

Date: April 27, 2016