Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 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	37.20	25.15
		Ammonia	0.17	0.75
MSS Caps (6)		CO	350.30	31.97
		NO_x	71.02	6.88
		VOC	539.33	43.30
		SO_2	1031.57	38.48
		H_2S	10.96	0.21
		PM	0.61	0.23
		PM_{10}	0.61	0.23
		$PM_{2.5}$	0.61	0.23
		Ammonia	4.46	0.51
		Exempt Solvents	1.76	0.60
REFFUG	Refinery Fugitives Subcap (5)	VOC	57.03	249.81
		H_2S	< 0.01	0.02
Various	Tanks Subcap	VOC	198.61	42.15

Emission Sources - Maximum Allowable Emission Rates

EP-B-1	Boiler - C8 Boiler No. 1 (EP-B-1)	NO_x	5.90	18.05
		VOC	0.91	3.24
		SO_2	4.39	5.80
		CO	14.32	25.53
		PM	1.26	4.48
		PM_{10}	1.26	4.48
		$PM_{2.5}$	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	1.26	4.48
		PM_{10}	1.26	4.48
		$PM_{2.5}$	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	0.67	2.94
		PM_{10}	0.67	2.94
		$PM_{2.5}$	0.67	2.94

Emission Sources - Maximum Allowable Emission Rates

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	1.80	7.17
		PM_{10}	1.80	7.17
		$PM_{2.5}$	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	0.67	2.94
		PM_{10}	0.67	2.94
		$PM_{2.5}$	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	0.77	3.25
		PM_{10}	0.77	3.25
		$PM_{2.5}$	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	0.04	0.16
		PM_{10}	0.04	0.16
		$PM_{2.5}$	0.04	0.16

Emission Sources - Maximum Allowable Emission Rates

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	0.89	3.43
		PM_{10}	0.89	3.43
		$PM_{2.5}$	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	0.15	0.64
		PM_{10}	0.15	0.64
		$PM_{2.5}$	0.15	0.64
39-H-1	Hydrobon Heater (Interim Emission Limits)	NO_x	3.99	17.48
		VOC	0.22	0.94
		SO_2	0.93	1.51
		CO	3.47	7.61
		PM	0.30	1.30
		PM_{10}	0.30	1.30
		$PM_{2.5}$	0.30	1.30
		NH_3	0.013	0.06

Emission Sources - Maximum Allowable Emission Rates

39-H-1 (8)	Hydrobon Heater (Final Emission Limits)	NO_x	1.8	7.9
		VOC	0.27	1.18
		SO_2	1.29	2.09
		CO	3.53	7.72
		PM	0.37	1.63
		PM_{10}	0.37	1.63
		$PM_{2.5}$	0.37	1.63
		NH_3	0.016	0.07
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	1.76	6.74
		PM_{10}	1.76	6.74
		$PM_{2.5}$	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	1.13	3.92
		PM_{10}	1.13	3.92
		$PM_{2.5}$	1.13	3.92
44-H-2	Heater - C7 GOT Frac. Reb. (144-H-2)	NO_x	6.00	20.97
		VOC	0.27	0.94
		SO_2	1.29	1.51
		CO	3.53	7.61
		PM	0.37	1.30
		PM_{10}	0.37	1.30
		$PM_{2.5}$	0.37	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

Emission Sources - Maximum Allowable Emission Rates

		SO_2	0.32	0.52
		CO	1.08	1.74
		PM	0.10	0.38
		PM_{10}	0.10	0.38
		$PM_{2.5}$	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	0.28	1.23
		PM_{10}	0.28	1.23
		$PM_{2.5}$	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	0.24	1.04
		PM_{10}	0.24	1.04
		$PM_{2.5}$	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	0.24	1.04
		PM_{10}	0.24	1.04
		$PM_{2.5}$	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

Emission Sources - Maximum Allowable Emission Rates

		PM	0.67	1.93
		PM_{10}	0.67	1.93
		$PM_{2.5}$	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	0.20	0.74
		PM_{10}	0.20	0.74
		$PM_{2.5}$	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	0.54	1.89
		PM_{10}	0.54	1.89
		$PM_{2.5}$	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	0.87	2.26
		PM_{10}	0.87	2.26
		$PM_{2.5}$	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	0.56	2.44
		PM_{10}	0.56	2.44
		$PM_{2.5}$	0.56	2.44

Emission Sources - Maximum Allowable Emission Rates

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	0.66	1.59
		PM_{10}	0.66	1.59
		$PM_{2.5}$	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	0.26	0.76
		PM_{10}	0.26	0.76
		$PM_{2.5}$	0.26	0.76
8-H-4	Heater - C7 No. 4 Crude Chrg. (108-H-4)	NO_x	6.78	19.16
		VOC	1.04	2.95
		SO_2	4.52	4.73
		CO	16.86	23.82
		PM	1.44	4.08
		PM_{10}	1.44	4.08
		$PM_{2.5}$	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	0.30	1.29
		PM_{10}	0.30	1.29
		$PM_{2.5}$	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

Emission Sources - Maximum Allowable Emission Rates

		SO_2	1.60	2.60
		CO	5.99	13.11
		PM	0.51	2.25
		PM_{10}	0.51	2.25
		$PM_{2.5}$	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	2.13	6.53
		PM_{10}	2.13	6.53
		$PM_{2.5}$	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	0.27	0.97
		PM_{10}	0.27	0.97
		$PM_{2.5}$	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	0.03	0.06
		PM_{10}	0.03	0.06
		$PM_{2.5}$	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	0.03	0.06

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.03	0.06
		$PM_{2.5}$	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	0.62	1.73
		PM_{10}	0.62	1.73
		$PM_{2.5}$	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	0.88	3.72
		PM_{10}	0.88	3.72
		$PM_{2.5}$	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	5.02	22.00
		PM_{10}	5.02	22.00
		$PM_{2.5}$	5.02	22.00
83-CT1	Cooling Tower - Complex 8	VOC	2.52	7.36
		PM	3.02	12.24
		PM_{10}	3.02	12.24
		$PM_{2.5}$	3.02	12.24
88-CT7	Cooling Tower - Complex 7	VOC	2.53	7.66
		PM	4.78	19.05
		PM_{10}	4.78	19.05
		$PM_{2.5}$	4.78	19.05

Emission Sources - Maximum Allowable Emission Rates

Q-CT4	Cooling Tower - Hydrocracker	VOC	0.67	2.76
		PM	1.10	4.46
		PM_{10}	1.10	4.46
		$PM_{2.5}$	1.10	4.46
Q-CT5	Cooling Tower - No. 2 Reformer	VOC	0.46	3.31
		PM	0.77	3.13
		PM_{10}	0.77	3.13
		$PM_{2.5}$	0.77	3.13
Q-CT8	Cooling Tower - BTX	VOC	0.50	1.47
		PM	0.80	3.26
		PM_{10}	0.80	3.26
		$PM_{2.5}$	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	45.79
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	0.75	0.91
		PM_{10}	0.75	0.91
		$PM_{2.5}$	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

Emission Sources - Maximum Allowable Emission Rates

		SO_2	0.01	0.04
		CO	1.74	4.71
		PM	0.16	0.44
		PM_{10}	0.16	0.44
		$PM_{2.5}$	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	0.40	1.75
		PM_{10}	0.40	1.75
		$PM_{2.5}$	0.40	1.75
FU-1	DCU Coke Handling Fugitives	PM	0.62	2.74
		PM_{10}	0.30	1.29
		$PM_{2.5}$	0.04	0.20
CSV1	COKE STREAM VENT 1	VOC	55.00	-
		H_2S	5.43	-
		PM	2.95	-
		PM_{10}	1.98	-
		$PM_{2.5}$	1.98	-
		Benzene	0.65	-

Emission Sources - Maximum Allowable Emission Rates

CSV2	COKE STREAM VENT 2	VOC	55.00	-
		H_2S	5.43	-
		PM	2.95	-
		PM_{10}	1.98	-
		$PM_{2.5}$	1.98	-
		Benzene	0.65	-
CVS1/CSV2	COKE STREAM VENTS 1/2 COMBINED CAP	VOC	-	20.08
		H_2S	-	1.98
		PM	-	1.08
		PM_{10}	-	0.72
		$PM_{2.5}$	-	0.72
		Benzene	-	0.24
2REGENVENT	2REGENVENT	VOC	0.01	0.01
4REGENVENT	4REGENVENT	VOC	0.02	0.07
91-D-1	Slurry Tank (Sludge Conc)	VOC	0.01	0.01
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

Emission Sources - Maximum Allowable Emission Rates

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
H_2S - hydrogen sulfide
HCl - hydrogen chloride
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) The emission limits of EPN 39-H-1 shall apply after the installation of low NO_x burners in accordance with Special Condition No. 11.C of the permit. At which point current emission limits will be voided.

Date: July 6, 2022

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	Boiler - C6B Boiler No. 4 (West) (169-B-4)	X	X	X	X	X			
B-5A	B-5	Boiler - C6B Boiler No. 5 (East) (169-B-5)	X	X	X	X	X			
B-1	EP-B-1	Boiler - C8 Boiler No. 1 (EP-B-1)	X	X	X	X	X			
B-2	EP-B-2	Boiler - C8 Boiler No. 2 (EP-B-2)	X	X	X	X	X			
B-5	EP-B-5	COMPLEX 8 BOILER No. 5	X	X	X	X	X			
CT1	83-CT1	Cooling Tower - Complex 8		X			X			
CT7	88-CT7	Cooling Tower - Complex 7		X			X			
CT4	Q-CT4	Cooling Tower - Hydrocracker		X			X			
CT5	Q-CT5	Cooling Tower - No. 2 Reformer		X			X			
CT8	Q-CT8	Cooling Tower - BTX		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-1BTX1	27-H-1	Heater - C8 BTX Clay Twr (127-H-1)	X	X	X	X	X		
H-1KERO1	37-H-1	Heater - C7 Kero HDS Chrg. (137-H-1)	X	X	X	X	X		
H-2KERO1	37-H-2	Heater - C7 Kero HDS Frac. Reb. (137-H-2)	X	X	X	X	X		
H-1REF4	39-H-1	Heater - C7 No. 4	X	X	X	X	X		
H-2REF4	39-H-2	Heater - C7 No. 4 Hydrobon Reb. (139-H-2)	X	X	X	X	X		
H-3REF4A	39-H-3A	Heater - C7 No. 4 Plat. Charge (139-H-3A)	X	X	X	X	X		
H-3REF4B	39-H-3B	Heater - C7 No. 4 Plat. IntHtr. (139-H-	X	X	X	X	X		

		3B)									
H-3REF4C	39-H-3C	C7 No. 4 Plat. IntHtr. (139-H-3C/D)	X	X	X	X	X				
H-7REF4	39-H-7	Heater - C7 No. 4 Plat. Stab. Reb. (139-H-7)	X	X	X	X	X				
H-1GOT1	44-H-1	Heater - C7 GOT Chrg. (144-H-1)	X	X	X	X	X				
H-2GOT1	44-H-2	Heater - C7 GOT Frac. Reb. (144-H-2)	X	X	X	X	X				
H-3GOT1	44-H-3	Heater - C7 GOT Stabilizer (144-H-3)	X	X	X	X	X				
H-2COKE1	7-H-2	Heater - C7 Coker Chrg. (107-H-2)	X	X	X	X	X				
H-3VAC4	8-H-3	Heater - C7 No. 4 Vacuum Chrg. (108-H-3)	X	X	X	X	X				
H-4CRU4	8-H-4	Heater - C7 No. 4 Crude Chrg. (108-H-4)	X	X	X	X	X				
H-5VAC4	8-H-5	Heater - C7 No. 4 Vacuum Chrg. (108-H-5)	X	X	X	X	X				
H-6CRU4	8-H-6	Heater - C7 No. 4 Crude Chrg. (108-H-6)	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									
H-4QNAPSPL	Q3-H-4A/B	Heater - C6B No. 2 Ref. Split. (116-H-4A/B)	X	X	X	X	X				
H-3HDS2A	Q3-H-3	No. 2 Reformer HDS Heaters	X	X	X	X	X				
H-3HDS2B	Q3-H-3	No. 2 Reformer HDS Heaters	X	X	X	X	X				
H-3HDS2C	Q3-H-3	No. 2 Reformer HDS Heaters	X	X	X	X	X				
H-1SMR	Q10-H-1	Htr-C6B SMR Htr (129-H-1) Hydrobon Chrg. (139-H-1)	X	X	X	X	X				
H-3001HCU	Q11-H-3001	Heater - C6B HCU Deb. Reb. (129-H-3001)	X	X	X	X	X				
H-3002HCU	Q11-H-3002	Heater - C6B HCU Fract. Reb. (129-H-3002)	X	X	X	X	X				
H-301HCU	Q11-H-301	Heater - C6B HCU Rx Chrg. (129-H-301)	X	X	X	X	X				
H-125QREF2A	QH-125	No. 2 Reformer Heaters	X	X	X	X	X				
H-125QREF2B	QH-125	No. 2 Reformer Heaters	X	X	X	X	X				
H-125QREF2C	QH-125	No. 2 Reformer Heaters	X	X	X	X	X				
L-10QHDA	QL-10	Heater - C6B No. 4 Plat. Splitter (154-H-10)	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
SWS1-T3	SWS1-T3	SOUR WATER SURGE TANK		X						
T-102	TO-2	Tank 102								
T-108	TO-2	Tank 108								
T-113	TK-113	TANK 113		X						
T-114	TK-114	TANK 114		X						
T-122	TK-122	TANK 122		X						
T-128	TK-128	TANK 128		X						B
T-138	TO-2	TANK 138		X						
T-2	T-2	Tank 2								
T-201	TO-2	Tank 201								
T-202	TK-202	TANK 202		X						B
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-22	TK-22	TANK 22		X						B
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-332	TK-332	TANK 332		X						
T-354	TK-354	TANK 354		X						
T-500	TK-500	TANK 500		X						
T-9	TK-9	TANK 9		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-01-02	ULSD Heaters	X	X	X	X	X				
SMR2	SMR2	SMR2 Heater	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.		X							B

		SUMP/PUMP OUT SYS.									
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/HEADER		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 - 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
NH_3 - ammonia
H_2S - hydrogen sulfide
A - sulfuric acid
B - benzene
C - chlorine and hydrogen chloride

Date: March 31, 2022