Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 83702, PSDTX843M2, PSDTX860M2, and PAL15

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	
			lb/hour	TPY (4)
PAL VOC (6)	PAL VOC	PAL (VOC)	-	495.36
PAL PM (6)	PAL PM	PAL (PM)	-	226.03
		PAL (PM_{10})	-	226.03
PAL $PM_{2.5}$ (6)	PAL $PM_{2.5}$	PAL ($PM_{2.5}$)	-	221.03
PAL SO_2 (6)	PAL SO_2	PAL (SO_2)	-	56.40
PAL H_2S (6)	PAL H_2S	PAL (H_2S)	-	10.02
CGOST (6)	Catalyst, Gear Oil, and Synthetics Tanks	VOC	-	106.47
		PM	0.02	0.01
		PM_{10}	0.02	0.01
		$PM_{2.5}$	0.02	0.01
		H_2S	0.01	0.01
		HCl	0.39	1.54
		HNO_3	-	0.01
		NH_4NO_3	-	0.04
AOMSSFL (6)	Aromatics and Olefins MSS Flaring	VOC	3567.34	93.38
		SO_2	160.06	1.12
		H_2S	2.29	0.01
		NO_x	933.86	19.70
		CO	4154.48	100.59

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MSSAE (6)	MSS Atmospheric Emissions	VOC	518.88	61.25
		SO_2	0.05	0.01
		H_2S	0.01	0.01
		NO_x	32.60	0.11
		CO	48.94	1.29
		NH_3	3.14	0.13
		H_2SO_4	0.93	0.01
		PM	1.20	0.17
		PM_{10}	1.20	0.17
		$PM_{2.5}$	1.20	0.17
02TFX_548	T-548 Wastewater Equalization Tank	NH_4NO_3	0.09	0.04
02TFX_557	Nitric Acid Tank T-557	HNO_3	0.01	0.01
02TFX_563	Crude Product Solution Tank T-563	VOC	1.25	5.48
02TFX_588	Tank T-588	VOC	0.07	0.31
02TFX_598	Wastewater Tank T-598	VOC	0.01	0.04
02TFX_6218	Propylene Glycol Tank D-6218	VOC	1.36	5.96
02TFX_6321	F-6321 Wastewater Equalization Tank	NH_4NO_3	0.01	0.04
02TFX_6322	F-6322 Storage Tank	NH_4NO_3	0.01	0.04
02TFX_6323	F-6323 Storage Tank	NH_4NO_3	0.09	0.04
02TOT_126	Decanter T-126	VOC	0.29	1.27
02TOT_138	Belt Filter Floc Tank F-6544	VOC	0.29	1.27
02TOT_6602	Decanter F6602	VOC	0.72	3.17
02TOT_6607	Decanter F6607	VOC	0.72	3.17
02TOT_6629	Floc Vessel F6629	VOC	0.83	3.64
02TOT_510	T-510 Decanter	VOC	0.29	1.27
02TOT_511	T-511 Decanter	VOC	0.29	1.27
02TOT_512	T-512 Decanter	VOC	0.16	0.70
02TOT_513	T-513 Decanter	VOC	0.29	1.27
02TOT_541	HOC Tank T-541	VOC	0.83	3.64
02TOT_6544	Belt Filter Floc Tank F-6544	VOC	0.83	3.64
02TOT_6603	Decanter F-6603	VOC	0.72	3.17

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02TOT_6604	Decanter F-6604	VOC	0.72	3.17
02TOT_6605	Decanter F-6605	VOC	0.72	3.17
02TOT_6606	Decanter F-6606	VOC	0.72	3.17
02TOT_6625	Seed Vessel F-6625	VOC	0.01	0.04
02TOT_6628	Floc Vessel F-6628	VOC	0.83	3.64
05TCS_101	WT-101	VOC	0.06	0.26
05TCS_104	WT-104	VOC	0.07	0.31
05TCS_107	WT-107	VOC	0.06	0.26
05TCS_108	WT-108	VOC	0.10	0.44
05TCS_3015	WT-3015	VOC	1.10	4.82
05TCS_614	T614	VOC	0.02	0.09
05TFX_102	WT-102	VOC	0.11	0.48
05TFX_103	WT-103	VOC	0.18	0.79
05TFX_105	WT-105	VOC	0.84	3.68
05TFX_106	WT-106	VOC	0.01	0.04
05TFX_121	WV-121	VOC	0.01	0.04
05TFX_122	WV-122	VOC	0.01	0.04
05TFX_130	WT-130	VOC	1.63	7.14
05TFX_3016	F-3016	VOC	15.66	68.58
05TFX_3017	F-3017	VOC	0.03	0.13
05TFX_3018	D-3018	VOC	0.01	0.04
05TFX_3019	D-3019	VOC	0.01	0.04
05TFX_3030	F-3030	VOC	16.02	70.18
05TFX_3031	F-3031	VOC	9.41	41.22
05TFX_411	T-411	VOC	0.16	0.70
05TFX_415	T-415	VOC	0.76	3.33
05TFX_427	T-427	VOC	0.79	3.46
05TFX_429	T-429	VOC	0.45	1.97
05TFX_430	T-430	VOC	0.45	1.97
05TFX_442	T-442	VOC	7.27	31.84
05TFX_8100	F-8100	VOC	0.01	0.04

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05TOT_120	WV-120	VOC	0.75	3.30
05VSL_123	WV-123	VOC	0.19	0.83
07DTC_7103	Lime Treat V-103 Slurry Vessel	VOC	0.06	0.28
07TFX_107R	TankT-107R	VOC	7.34	32.15
07TFX_113	Tank T-113	VOC	12.25	53.63
07TFX_115R	Tank T-115R	VOC	7.51	32.87
07TFX_7129	Tank F-7129	VOC	29.93	106.47
07TFX_132	Feed Day Tank T-132	VOC	0.14	0.63
07TFX_134	Tank 134	VOC	0.31	1.38
07TFX_137R	Tank T-137R	VOC	10.03	43.95
07TFX_151	Solvent Recycle Tank V-151	VOC	1.39	6.10
07TFX_248	Product Storage Tank V-248	VOC	0.38	1.68
07TFX_405	Solvent Day Tank T-405	VOC	0.01	0.04
07TFX_407	Solvent storage Tank T-407	VOC	1.42	6.22
07TFX_408	Tank T-408	VOC	0.10	0.46
07TFX_426	Tank T426	VOC	23.57	103.26
07TFX_428	Tank T-428	VOC	29.5	106.47
07TFX_431	Tank T-431	VOC	21.00	91.96
07TFX_432	TankT-432	VOC	11.21	49.11
07TFX_433	Tank T-433	VOC	21.00	91.96
07TFX_434	Tank T-434	VOC	5.61	24.58
07TFX_435	Tank T-435	VOC	15.50	67.87
07TFX_436	Tank T-436	VOC	5.61	24.58
07TFX_443	Tank T-443	VOC	4.73	20.73
07TFX_444	Tank T-444	VOC	6.87	30.10
07TFX_445	TankT-445	VOC	0.89	3.88
07TFX_446	Tank T-446	VOC	9.52	41.68
07TFX_447	Tank T-447	VOC	6.89	30.18
07TFX_448	Tank T-448	VOC	1.57	6.88
07TFX_504	Tank F-504	VOC	0.02	0.09
07TFX_521	Tank T-521	VOC	4.34	19.01

Emission Sources - Maximum Allowable Emission Rates

07TFX_527	Hydro Feed Tank V-527	VOC	31.20	106.80
07TFX_600	Tank T-600	VOC	0.02	0.09
07TFX_601R	Tank T-601R	VOC	9.35	40.94
07TFX_602	Tank T-602	VOC	16.59	72.66
07TFX_603R	Tank T-603R and Scrubber C-205	VOC	20.30	88.91
07TFX_604	Tank T-604	VOC	3.00	13.16
07TFX_605	Tank F-605	VOC	0.02	0.09
07TFX_607	Tank T-607	VOC	0.04	0.17
07TFX_615	Tank T-615	VOC	0.01	0.04
07TFX_625	Filter Re-Coat Tank V-625	VOC	1.36	5.96
07TFX_7120	Tank F-7120	VOC	22.58	98.88
07TFX_7599	Tank T-7599	VOC	0.08	0.34
07TFX_7600	Tank F-7600	VOC	0.57	2.48
07TIF_7800	TankF-7800	VOC	0.42	1.93
07TFX_7801	Tank F-7801	VOC	3.56	15.68
07TFX_8061	Tank F-8061	VOC	4.56	19.97
07TIF_7502	Tank F-7502	VOC	0.84	3.69
07TOT_103	Lime Treat V-103 Slurry vessel	VOC	0.01	0.06
07TOT_148	Filter Pre Coat Tank T-148	VOC	0.33	1.45
07TOT_151	Filter pre Coat Tank T-146	VOC	0.52	2.28
07TOT_232	Vessel V-232 Filteraid	VOC	0.04	0.16
07TOT_7570	Filter Pre-Coat Tank T-7570	VOC	4.91	21.52
01CAS_3536	Carbon Adsorption System	VOC	2.83	6.20
01CAS_037	Carbon Adsorption System	VOC	4.30	0.13
01CAS_038	Carbon Adsorption System	VOC	4.30	0.13
01CTL_002	Cooling Tower No. 2	VOC	0.63	2.76
		PM	3.05	13.36
		PM_{10}	3.05	13.36
		$PM_{2.5}$	3.05	13.36
01DEG_001	Aromatics Degreaser NO. 1	VOC	0.15	0.65
01DEG_002	Aromatics Degreaser NO. 2	VOC	0.15	0.65

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01DEG_003	Aromatics Degreaser NO. 3	VOC	0.15	0.65
01DEG_005	Aromatics Degreaser NO. 5	VOC	0.15	0.65
01FUG_001	Process Fugitives (5)	VOC	0.92	3.95
01HTR_301	Heater B-301	NO_x	0.79	3.48
		CO	0.67	2.92
		SO_2	0.01	0.02
		VOC	0.04	0.19
		PM	0.06	0.26
		PM_{10}	0.06	0.26
		$PM_{2.5}$	0.06	0.26
		H_2S	0.01	0.01
01VNT_01N	Analyzer Vent	VOC	0.01	0.01
01VNT_01S	Analyzer Vent	VOC	0.01	0.01
01VNT_104	Hydrotreater Converter Regenerator Vent	NO_x	0.01	0.01
		CO	0.08	0.01
		SO_2	0.02	0.01
		VOC	0.66	0.03
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		H_2S	0.01	0.01
02ABT_325	Abator A-325	NO_x	6.37	10.03
		CO	5.11	4.65
		SO_2	0.10	0.46
		VOC	7.24	3.15
		PM	0.62	2.81
		PM_{10}	0.62	2.81
		$PM_{2.5}$	0.62	2.81
		H_2S	0.01	0.01
		NH_3	1.17	0.38
02BAG_517	A-517-1 Baghouse	PM	0.06	0.30

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.06	0.30
		$PM_{2.5}$	0.06	0.30
02BAG_563	A-563/A-564 Baghouse	PM	0.14	0.61
		PM_{10}	0.14	0.61
		$PM_{2.5}$	0.14	0.61
02BAG_573	Baghouse A-573	PM	0.35	1.59
		PM_{10}	0.35	1.59
		$PM_{2.5}$	0.35	1.59
02BAG_574	Baghouse A-574	PM	0.87	3.86
		PM_{10}	0.87	3.86
		$PM_{2.5}$	0.87	3.86
02BAG_590	F-590 Belt Filter	VOC	0.02	0.09
		NH_3	0.04	0.15
02BAG_6302	M-6302 Bag Filter	PM	0.05	0.23
		PM_{10}	0.05	0.23
		$PM_{2.5}$	0.05	0.23
02BAG_6306	M-6306 Bag Filter	PM	0.03	0.13
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.03	0.13
02DTC_313	Dust Collector F-313	PM	0.05	0.01
		PM_{10}	0.05	0.01
		$PM_{2.5}$	0.05	0.01
02DTC_6260	Dust Collector M-6260	PM	0.86	2.57
		PM_{10}	0.86	2.57
		$PM_{2.5}$	0.86	2.57
02DTC_6402	F-6402 Dust Collector	PM	0.51	2.25
		PM_{10}	0.51	2.25
		$PM_{2.5}$	0.51	2.25
02ERS_6389	ERS B-6389	NO_x	55.85	17.39
		CO	7.26	16.82
		SO_2	0.62	2.70

Emission Sources - Maximum Allowable Emission Rates

		VOC	16.84	3.58
		PM	2.89	2.43
		PM_{10}	2.89	2.43
		$PM_{2.5}$	2.89	2.43
		H_2S	0.01	0.03
		NH_3	5.90	3.12
02FIL_211	T-546-2/T-580-2-Baghouse	PM	0.05	0.25
		PM_{10}	0.05	0.25
		$PM_{2.5}$	0.05	0.25
02FUG_001	Catalyst Process Fugitive Area (5)	VOC	0.71	3.10
		PM	0.15	0.65
		PM_{10}	0.15	0.65
		$PM_{2.5}$	0.15	0.65
		NH_3	0.22	0.80
02FUG_003	Offsites Fugitives (5)	VOC	6.00	4.99
02HTR_302	Heater H-302	NO_x	0.35	0.42
		CO	0.31	0.35
		SO_2	0.05	0.05
		VOC	0.02	0.02
		PM	0.02	0.03
		PM_{10}	0.02	0.03
		$PM_{2.5}$	0.02	0.03
		H_2S	0.01	0.01
02HTR_500	H-500 Heater	NO_x	0.35	0.42
		CO	0.31	0.35
		SO_2	0.05	0.05
		VOC	0.02	0.02
		PM	0.02	0.03
		PM_{10}	0.02	0.03
		$PM_{2.5}$	0.02	0.03
		H_2S	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

02HTR_501	H-501 Heater	NO_x	0.35	0.42
		CO	0.31	0.35
		SO_2	0.05	0.05
		VOC	0.02	0.02
		PM	0.02	0.03
		PM_{10}	0.02	0.03
		$PM_{2.5}$	0.02	0.03
		H_2S	0.01	0.01
02HTR_622	Superheater B-6223	NO_x	0.18	0.79
		CO	0.25	1.08
		SO_2	0.04	0.17
		VOC	0.02	0.07
		PM	0.02	0.10
		PM_{10}	0.02	0.10
		$PM_{2.5}$	0.02	0.10
		H_2S	0.01	0.01
02HTR_632	Superheater B-6369	NO_x	0.22	0.90
		CO	0.30	1.24
		SO_2	0.05	0.20
		VOC	0.02	0.08
		PM	0.03	0.11
		PM_{10}	0.03	0.11
		$PM_{2.5}$	0.03	0.11
		H_2S	0.01	0.01
02HTR_635	Superheater B-6359	NO_x	0.22	0.90
		CO	0.30	1.24
		SO_2	0.05	0.20
		VOC	0.02	0.08
		PM	0.03	0.11
		PM_{10}	0.03	0.11
		$PM_{2.5}$	0.03	0.11

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		H_2S	0.01	0.01
02PUM_593	P-593 Vacuum Pump	VOC	0.09	0.38
		NH_3	0.86	3.67
02SCB_3167	Scrubbers A-316/A-317	VOC	0.62	2.51
		NH_3	0.74	0.90
02TOX_6240	02TOX_6240	NO_x	6.00	4.34
		CO	7.43	3.65
		SO_2	0.04	0.10
		VOC	0.92	0.15
		PM	2.70	7.16
		PM_{10}	2.70	7.16
		$PM_{2.5}$	2.70	7.16
		H_2S	0.01	0.01
		Silicones	0.28	0.04
02VNT_257	Calciner V-257	PM	1.15	0.08
		PM_{10}	1.15	0.08
		$PM_{2.5}$	1.15	0.08
		NH_3	0.01	0.01
02VNT_502	Calciner V-502	PM	1.15	0.08
		PM_{10}	1.15	0.08
		$PM_{2.5}$	1.15	0.08
		NH_3	0.01	0.01
02VNT_520	Calciner V-520	PM	1.15	0.08
		PM_{10}	1.15	0.08
		$PM_{2.5}$	1.15	0.08
		NH_3	0.01	0.01
03FUG_001	Cyclohexane Unit Fugitives (5)	VOC	2.27	4.97
04CAS_033	Ethylene Unit Carbon Canisters	VOC	0.49	1.08
04CAS_034	Ethylene Unit Carbon Canisters	VOC	0.49	1.08
04CTL_001	Cooling Tower No. 1	VOC	4.20	18.40
		PM	19.53	85.52

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		PM_{10}	19.53	85.52
		$PM_{2.5}$	19.53	85.52
04FUG_001	Ethylene Unit Fugitives (5)	VOC	10.80	47.40
04FUG_003	RGCB Fugitives (5)	VOC	4.55	19.94
04HTR_201	B-201 Drier Regen. Gas Heater	NO_x	1.26	5.52
		CO	0.61	2.66
		SO_2	0.01	0.07
		VOC	0.10	0.22
		PM	0.28	1.22
		PM_{10}	0.28	1.22
		$PM_{2.5}$	0.28	1.22
		H_2S	0.01	0.01
04HTR_401	B-401 Acetylene Regen. Gas Heater	NO_x	1.20	2.63
		CO	0.52	1.14
		SO_2	0.01	0.05
		VOC	0.06	0.14
		PM	0.15	0.65
		PM_{10}	0.15	0.65
		$PM_{2.5}$	0.15	0.65
		H_2S	0.01	0.01
04HTR_403	B-403 Rerun Tower Reboiler	NO_x	1.33	5.82
		CO	0.64	2.81
		SO_2	0.01	0.07
		VOC	0.05	0.23
		PM	0.29	1.29
		PM_{10}	0.29	1.29
		$PM_{2.5}$	0.29	1.29
		H_2S	0.01	0.01
04TFX_3269	Condensate Stripper Antifoulant Tank	VOC	0.41	0.01
04VNT_103	Acetylene/MAPD Converter Regenerator Vent	NO_x	0.07	0.01
		CO	1.02	0.15

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		VOC	8.32	0.55
		PM	0.02	0.01
		PM_{10}	0.02	0.01
		$PM_{2.5}$	0.02	0.01
05FUG_001	Fugitive (5)	VOC	5.95	5.93
		PM	0.16	0.01
		PM_{10}	0.16	0.01
		$PM_{2.5}$	0.16	0.01
05FUG_002	Loading Fugitives (5)	VOC	5.30	0.98
06DEG_001	Olefins Degreaser	VOC	0.10	0.22
06DEG_002	Olefins Degreaser	VOC	0.10	0.22
06TFX_4051	USC-1 Aqueous Amine Tank	VOC	0.04	0.05
06TFX_4052	USC-2 Aqueous Amine Tank	VOC	0.21	0.01
07CTL_001	BCSP Main Plant Cooling Tower	VOC	0.17	0.74
		PM	0.81	3.56
		PM_{10}	0.81	3.56
		$PM_{2.5}$	0.81	3.56
07CTL_002	BCSP West Plant Cooling Tower	VOC	0.02	0.09
		PM	0.10	0.45
		PM_{10}	0.10	0.45
		$PM_{2.5}$	0.10	0.45
07FUG_001	PAO Fugitives (5)	VOC	7.60	15.12
		PM	0.08	0.57
		PM_{10}	0.08	0.57
		$PM_{2.5}$	0.08	0.57
07FUG_002	PAO Loading Emissions (5)	VOC	25.86	6.95
07FUG_003	HVI Fugitive Emissions (5)	VOC	0.82	3.99
07HTR_7701	Heater H-7701	NO_x	1.44	9.81
		CO	1.03	7.77
		SO_2	0.01	0.63
		VOC	0.04	0.38

Emission Sources - Maximum Allowable Emission Rates

		PM	0.19	1.13
		PM_{10}	0.19	1.13
		$PM_{2.5}$	0.19	1.13
		H_2S	0.01	0.01
07HTR_7708	Dowtherm Heater H-7708	NO_x	0.51	2.23
		CO	0.49	2.16
		SO_2	0.09	0.39
		VOC	0.04	0.16
		PM	0.05	0.22
		PM_{10}	0.05	0.22
		$PM_{2.5}$	0.05	0.22
		H_2S	0.01	0.01
07SCB_207	Scrubber C-207	VOC	61.39	12.36
		HCl	0.01	0.01
		BF_3	0.01	0.04
07WWS_001	Wastewater System	VOC	11.41	9.91
08BLR_9201	Reboiler B-9201	NO_x	7.23	20.50
		CO	2.89	9.11
		SO_2	0.09	0.27
		VOC	0.78	2.45
		PM	0.72	2.28
		PM_{10}	0.72	2.28
		$PM_{2.5}$	0.72	2.28
		H_2S	0.01	0.01
08BLR_9400	Reboiler B-9400	NO_x	2.75	8.77
		CO	1.10	3.90
		SO_2	0.03	0.11
		VOC	0.30	1.05
		PM	0.28	0.97
		PM_{10}	0.28	0.97
		$PM_{2.5}$	0.28	0.97

Emission Sources - Maximum Allowable Emission Rates

		H_2S	0.01	0.01
08BLR_9401	Reboiler B-9401	NO_x	15.32	48.88
		CO	6.13	24.44
		SO_2	0.18	0.71
		VOC	1.65	6.58
		PM	1.53	6.11
		PM_{10}	1.53	6.11
		$PM_{2.5}$	1.53	6.11
		H_2S	0.01	0.01
08BLR_9402	Reboiler B-9402	NO_x	2.79	7.96
		CO	1.12	3.54
		SO_2	0.03	0.10
		VOC	0.30	0.95
		PM	0.28	0.88
		PM_{10}	0.28	0.88
		$PM_{2.5}$	0.28	0.88
		H_2S	0.01	0.01
08CTL_9601	Cooling Tower M-9601	VOC	0.50	2.21
		PM	1.63	7.13
		PM_{10}	1.63	7.13
		$PM_{2.5}$	1.63	7.13
08FUG_001	Process Fugitives (5)	VOC	0.47	2.03
08HTR_9301	Heater B-9301	NO_x	4.48	17.54
		CO	1.79	7.80
		SO_2	0.05	0.23
		VOC	0.48	2.10
		PM	0.45	1.95
		PM_{10}	0.45	1.95
		$PM_{2.5}$	0.45	1.95
		H_2S	0.01	0.01
08LWF_9602	Wharf Loading VCS	NO_x	7.40	16.21

Emission Sources - Maximum Allowable Emission Rates

		CO	2.30	5.04
		SO_2	0.01	0.01
		VOC	13.79	11.75
		H_2S	0.01	0.01
09CAS_031	USC I Carbon Canisters	VOC	0.64	2.78
09CTL_003	Cooling Tower No. 3	VOC	1.05	4.60
		PM	4.55	19.94
		PM_{10}	4.55	19.94
		$PM_{2.5}$	4.55	19.94
09FRN_210A	B-2101A Furnace	NO_x	10.32	44.75
		CO	10.62	32.71
		SO_2	0.08	0.23
		VOC	0.70	2.14
		PM	0.96	2.96
		PM_{10}	0.96	2.96
		$PM_{2.5}$	0.96	2.96
		H_2S	0.01	0.01
09FRN_210B	B-2101B Furnace	NO_x	10.32	44.75
		CO	10.62	32.71
		SO_2	0.08	0.23
		VOC	0.70	2.14
		PM	0.96	2.96
		PM_{10}	0.96	2.96
		$PM_{2.5}$	0.96	2.96
		H_2S	0.01	0.01
09FRN_210C	B-2101C Furnace	NO_x	10.32	44.75
		CO	10.62	32.71
		SO_2	0.08	0.23
		VOC	0.70	2.14
		PM	0.96	2.96
		PM_{10}	0.96	2.96

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.96	2.96
		H_2S	0.01	0.01
09FRN_210D	B-2101D Furnace	NO_x	10.32	44.75
		CO	10.62	32.71
		SO_2	0.08	0.23
		VOC	0.70	2.14
		PM	0.96	2.96
		PM_{10}	0.96	2.96
		$PM_{2.5}$	0.96	2.96
		H_2S	0.01	0.01
09FRN_210E	B-2101E Furnace	NO_x	10.32	44.75
		CO	10.62	32.71
		SO_2	0.08	0.23
		VOC	0.70	2.14
		PM	0.96	2.96
		PM_{10}	0.96	2.96
		$PM_{2.5}$	0.96	2.96
		H_2S	0.01	0.01
09FRN_210F	B-2101F Furnace	NO_x	10.32	44.75
		CO	10.62	32.71
		SO_2	0.08	0.23
		VOC	0.70	2.14
		PM	0.96	2.96
		PM_{10}	0.96	2.96
		$PM_{2.5}$	0.96	2.96
		H_2S	0.01	0.01
09FUG_001	USC I Fugitives (5)	VOC	4.80	21.79
09TFX_072A	USC-1 Antifoulant Tank	VOC	0.88	0.01
09VNT_027	Decoking Vent B-2101 A,B,C	CO	1285.42	16.65
		SO_2	0.15	0.01
		PM	69.44	1.03

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	27.08	0.57
		$PM_{2.5}$	27.08	0.57
		H_2S	0.01	0.01
09VNT_030	Decoking Vent B-2101 D,E,F	CO	1285.42	16.65
		SO_2	0.15	0.01
		PM	69.44	1.03
		PM_{10}	27.08	0.57
		$PM_{2.5}$	27.08	0.57
		H_2S	0.01	0.01
10BLR_6901	B-6901 A, B 1,500 psia Boilers	NO_x	99.70	317.00
		CO	8.40	20.80
		SO_2	0.50	1.40
		VOC	1.50	3.60
		PM	5.00	12.20
		PM_{10}	5.00	12.20
		$PM_{2.5}$	5.00	12.20
		H_2S	0.01	0.01
10CAS_032	USC II Carbon Canisters	VOC	0.39	1.73
10CTL_004	Cooling Tower No. 4	VOC	0.55	2.41
		PM	2.65	11.62
		PM_{10}	2.65	11.62
		$PM_{2.5}$	2.65	11.62
10FRN_610A	B-6101A Furnace	NO_x	13.59	53.77
		CO	13.99	39.30
		SO_2	0.10	0.40
		VOC	0.92	2.57
		PM	1.27	3.56
		PM_{10}	1.27	3.56
		$PM_{2.5}$	1.27	3.56
		H_2S	0.01	0.01
10FRN_610B	B-6101B Furnace	NO_x	13.59	53.77

Emission Sources - Maximum Allowable Emission Rates

		CO	13.99	39.30
		SO_2	0.10	0.40
		VOC	0.92	2.57
		PM	1.27	3.56
		PM_{10}	1.27	3.56
		$PM_{2.5}$	1.27	3.56
		H_2S	0.01	0.01
10FRN_610C	B-6101C Furnace	NO_x	13.59	53.77
		CO	13.99	39.30
		SO_2	0.10	0.40
		VOC	0.92	2.57
		PM	1.27	3.56
		PM_{10}	1.27	3.56
		$PM_{2.5}$	1.27	3.56
		H_2S	0.01	0.01
10FRN_610D	B-6101D Furnace	NO_x	13.59	53.77
		CO	13.99	39.30
		SO_2	0.10	0.40
		VOC	0.92	2.57
		PM	1.27	3.56
		PM_{10}	1.27	3.56
		$PM_{2.5}$	1.27	3.56
		H_2S	0.01	0.01
10FRN_615A	B-6151A Furnace	NO_x	11.60	48.57
		CO	11.94	35.50
		SO_2	0.09	0.36
		VOC	0.78	2.32
		PM	1.08	3.21
		PM_{10}	1.08	3.21
		$PM_{2.5}$	1.08	3.21
		H_2S	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

10FRN_615B	B-6151B Furnace	NO_x	11.60	48.57
		CO	11.94	35.50
		SO_2	0.09	0.36
		VOC	0.78	2.32
		PM	1.08	3.21
		PM_{10}	1.08	3.21
		$PM_{2.5}$	1.08	3.21
		H_2S	0.01	0.01
10FRN_630A	B-6301A Furnace (normal operation and hot steam standby)	NO_x	19.09	66.19
		CO	12.73	44.13
		SO_2	0.19	0.66
		VOC	1.84	4.53
		PM	2.55	6.27
		PM_{10}	2.55	6.27
		$PM_{2.5}$	2.55	6.27
		H_2S	0.01	0.01
	B-6301A Furnace (decoking conditions)	NO_x	25.46	-
10FRN_630B	B-6301B Furnace (normal operation and hot steam standby)	NO_x	19.09	66.19
		CO	12.73	44.13
		SO_2	0.19	0.66
		VOC	1.84	4.53
		PM	2.55	6.27
		PM_{10}	2.55	6.27
		$PM_{2.5}$	2.55	6.27
		H_2S	0.01	0.01
	B-6301B Furnace (decoking conditions)	NO_x	25.46	-
10FUG_001	USC II Fugitives (5)	VOC	6.29	27.80
10VNT_023	Decoking Vent B-6101 A, B	CO	1017.99	12.55
		SO_2	0.11	0.01
		PM	56.62	0.80

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	22.08	0.46
		$PM_{2.5}$	22.08	0.46
		H_2S	0.01	0.01
10VNT_024	Decoking Vent B-6101 C, D	CO	1017.99	12.55
		SO_2	0.11	0.01
		PM	56.62	0.80
		PM_{10}	22.08	0.46
		$PM_{2.5}$	22.08	0.46
		H_2S	0.01	0.01
10VNT_025	Decoking Vent B-6151 A, B	CO	856.94	10.38
		SO_2	0.09	0.01
		PM	45.70	0.66
		PM_{10}	17.82	0.38
		$PM_{2.5}$	17.82	0.38
		H_2S	0.01	0.01
10VNT_6301	Decoking Vent B-630 1 A, B	CO	2120.82	42.55
		SO_2	0.23	0.01
		PM	115.74	2.65
		PM_{10}	45.14	1.46
		$PM_{2.5}$	45.14	1.46
		H_2S	0.01	0.01
11CAS_043	Movements Carbon Canisters	VOC	2.87	6.28
11ENG_039	Emergency Fire Water Pump	NO_x	10.85	0.14
		CO	2.34	0.03
		SO_2	0.72	0.01
		VOC	0.88	0.01
		PM	0.77	0.01
		PM_{10}	0.77	0.01
		$PM_{2.5}$	0.77	0.01
		H_2S	0.01	0.01
11ENG_040	Emergency Fire Water Pump (26 hours per year)	NO_x	11.78	0.15

Emission Sources - Maximum Allowable Emission Rates

		CO	2.54	0.03
		SO_2	0.78	0.01
		VOC	0.95	0.01
		PM	0.84	0.01
		PM_{10}	0.84	0.01
		$PM_{2.5}$	0.84	0.01
		H_2S	0.01	0.01
11ENG_057	Emergency Fire Water Pump (26 hours per year)	NO_x	16.18	0.21
		CO	3.49	0.05
		SO_2	1.07	0.01
		VOC	1.31	0.02
		PM	1.15	0.01
		PM_{10}	1.15	0.01
		$PM_{2.5}$	1.15	0.01
		H_2S	0.01	0.01
11ENG_105	Rental Air Compressor at USC-2	NO_x	6.99	4.89
		CO	1.21	0.85
		SO_2	0.16	0.11
		VOC	0.20	0.14
		PM	0.10	0.07
		PM_{10}	0.10	0.07
		$PM_{2.5}$	0.10	0.07
11ENG_9616	Emergency Fire Water Pump (876 hours per year)	NO_x	16.93	0.22
		CO	3.65	0.05
		SO_2	1.12	0.01
		VOC	1.37	0.02
		PM	1.20	0.02
		PM_{10}	1.20	0.02
		$PM_{2.5}$	1.20	0.02
		H_2S	0.01	0.01
11FLR_4142	LP Flare (East Flare, 11FLR_041) + HP Flare (West Flare, 11FLR_042)	NO_x	60.26	77.31

Emission Sources - Maximum Allowable Emission Rates

		CO	379.16	393.95
		SO_2	33.17	0.86
		VOC	272.16	179.81
		H_2S	0.35	0.02
11FLR_043	UDEX Flare	NO_x	20.34	46.23
		CO	129.33	124.36
		SO_2	8.91	1.82
		VOC	193.42	78.16
		H_2S	0.09	0.02
11FLR_9601	Paraxylene Flare	NO_x	36.52	27.58
		CO	223.46	149.52
		SO_2	20.41	0.29
		VOC	270.01	27.16
		H_2S	0.22	0.01
11FLR_613	C&S Flare	NO_x	5.87	11.34
		CO	21.60	55.33
		SO_2	0.41	1.69
		VOC	7.59	10.38
		H_2S	0.01	0.02
		HCl	0.02	0.09
11FUG_001	Olefins Offsite Area Fugitives (5)	VOC	1.86	33.15
11FUG_002	Process Fugitives (5)	VOC	2.35	10.20
11FUG_004	Rail Loading Fugitives (5)	VOC	0.67	2.95
11LFS_036	No.2 Lift Station Gas Engine South	NO_x	3.10	0.34
		SO_2	0.01	0.01
		VOC	3.10	1.32
		H_2S	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

11LFS_037	No. 2 Lift Station Middle (330 hours per year)	NO_x	1.75	0.29
		CO	1.15	0.19
		SO_2	0.01	0.01
		VOC	0.25	0.04
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		H_2S	0.01	0.01
11LFS_037A	No. 2 Lift Station North (100 hours per year)	NO_x	1.92	0.10
		CO	1.26	0.06
		SO_2	0.01	0.01
		VOC	0.27	0.02
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		H_2S	0.01	0.01
11TFX_004	Sulfuric Acid Storage Tank	H_2SO_4	0.01	0.01
11TEF_034	Reformate Storage Tank	VOC	0.81	1.05
11TFX_079	Sulfuric Acid Storage Tank	H_2SO_4	0.01	0.01
11TFX_088	Diesel Storage Tank	VOC	0.26	0.01
11TFX_089	Diesel Storage Tank	VOC	0.26	0.01
11TFX_104	Diesel Tank	VOC	0.26	0.01
11TFX_105	Gasoline Tank	VOC	0.14	0.30
11TFX_106	Diesel Tank	VOC	0.26	0.01
11TFX_1201	Diesel Storage Tank	VOC	0.26	0.01
11TFX_9621	Diesel Storage Tank	VOC	0.26	0.01
11TOX_9603	Wharf Tank Farm Thermal Oxidizer	NO_x	0.20	0.88
		CO	0.35	1.55
		SO_2	0.01	0.01
		VOC	0.86	3.48
		PM	0.26	1.14

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.26	1.14
		$PM_{2.5}$	0.26	1.14
		H_2S	0.01	0.01
11TOX_9604	Refinery Tank Farm Thermal Oxidizer	NO_x	0.20	0.88
		CO	0.12	0.53
		SO_2	0.01	0.01
		VOC	0.31	1.34
		PM	0.10	0.44
		PM_{10}	0.10	0.44
		$PM_{2.5}$	0.10	0.44
		H_2S	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) 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 - 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
HCl - hydrogen chloride
H_2SO_4 - sulfuric acid
H_2S - hydrogen sulfide
BF_3 - boron trifluoride
NH_3 - ammonia
NH_4NO_3 - ammonia nitrate
HNO_3 - nitric acid
(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) See Attachment D for the list of Emission Point Numbers and Source Names included in each cap.

Date: September 30, 2020