Emission Sources - Maximum Allowable Emission Rates

Permit Number 22690 and PSDTX751M2

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)
22-36-1	22 Cracking Furnace 1	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29
22-36-2	22 Cracking Furnace 2	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29
22-36-3	22 Cracking Furnace 3	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29
22-36-4	22 Cracking Furnace 4	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29

Emission Sources - Maximum Allowable Emission Rates

22-36-6	22 Cracking Furnace 6	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29
22-36-7	22 Cracking Furnace 7	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29
22-36-8	22 Furnace Cracking 8	CO	37.48	29.74
		NO_X	15.60	16.99
		PM	0.97	3.17
		PM_{10}	0.97	3.17
		$PM_{2.5}$	0.97	3.17
		SO_2	4.33	7.48
		VOC	0.70	2.29
22-36-9	22 Cracking Furnace 9	CO	10.96	21.60
		CO (10)	32.88	
		NO_X	2.25	5.91
		NO_X (10)	5.06	
		PM	1.12	4.41
		PM_{10}	1.12	4.41
		$PM_{2.5}$	1.12	4.41
		SO_2	6.54	8.28
		VOC	0.81	3.19
		NH_3	0.67	2.62
24-36-9DC	Ethylene Cracking Furnace No. F-9 Decoking	CO	556.00	25.13
		PM	10.39	0.45
		PM_{10}	10.39	0.45
		$PM_{2.5}$	8.31	0.36

Emission Sources - Maximum Allowable Emission Rates

24-36-1	24 Cracking Furnace 1 (2 stacks)	CO	72.08	76.65
		NO_X	30.00	87.60
		PM	1.86	8.16
		PM_{10}	1.86	8.16
		$PM_{2.5}$	1.86	8.16
		SO_2	7.82	18.11
		VOC	1.35	5.90
24-36-2	24 Cracking Furnace 2 (2 stacks)	CO	72.08	76.65
		NO_X	30.00	87.60
		PM	1.86	8.16
		PM_{10}	1.86	8.16
		$PM_{2.5}$	1.86	8.16
		SO_2	7.82	18.11
		VOC	1.35	5.90
24-36-3	24 Cracking Furnace 3 (2 stacks)	CO	72.08	76.65
		NO_X	30.00	87.60
		PM	1.86	8.16
		PM_{10}	1.86	8.16
		$PM_{2.5}$	1.86	8.16
		SO_2	7.82	18.11
		VOC	1.35	5.90
24-36-4	24 Cracking Furnace 4 (2 stacks)	CO	72.08	76.65
		NO_X	30.00	87.60
		PM	1.86	8.16
		PM_{10}	1.86	8.16
		$PM_{2.5}$	1.86	8.16
		SO_2	7.82	18.11
		VOC	1.35	5.90

Emission Sources - Maximum Allowable Emission Rates

24-36-5	24 Cracking Furnace 5 (2 stacks)	CO	72.08	76.65
		NO_X	30.00	87.60
		PM	1.86	8.16
		PM_{10}	1.86	8.16
		$PM_{2.5}$	1.86	8.16
		SO_2	7.82	18.11
		VOC	1.35	5.90
24-36-6	24 Cracking Furnace 6 (2 stacks)	CO	72.08	76.65
		NO_X	30.00	87.60
		PM	1.86	8.16
		PM_{10}	1.86	8.16
		$PM_{2.5}$	1.86	8.16
		SO_2	7.82	18.11
		VOC	1.35	5.90
24-36-7	24 Steam Superheater 7	CO	63.72	67.76
		NO_X	26.52	96.80
		PM	1.65	7.21
		PM_{10}	1.65	7.21
		$PM_{2.5}$	1.65	7.21
		SO_2	6.92	16.01
		VOC	1.19	5.22
24-36-8	24 DAC Hydrotreater Heater 8	CO	0.98	1.08
		NO_X	0.57	2.23
		PM	0.02	0.10
		PM_{10}	0.02	0.10
		$PM_{2.5}$	0.02	0.10
		SO_2	0.09	0.19
		VOC	0.02	0.07

Emission Sources - Maximum Allowable Emission Rates

24-36-9	24 Cracking Furnace 9	CO	97.17	103.32
		NO_X	40.44	118.08
		PM	2.51	11.00
		PM_{10}	2.51	11.00
		$PM_{2.5}$	2.51	11.00
		SO_2	10.55	24.41
		VOC	1.82	7.96
33-36-1	33 Cracking Furnace 1	CO (7)	93.71	97.81
		NO_X (7)	39.00	83.83
		PM	2.42	10.41
		PM_{10}	2.42	10.41
		$PM_{2.5}$	2.42	10.41
		SO_2 (7)	15.85	10.80
		VOC	1.75	7.53
33-36-2	33 Cracking Furnace 2	CO (7)	93.71	97.81
		NO_X (7)	39.00	83.83
		PM	2.42	10.41
		PM_{10}	2.42	10.41
		$PM_{2.5}$	2.42	10.41
		SO_2 (7)	15.85	10.80
		VOC	1.75	7.53
33-36-3	33 Cracking Furnace 3	CO (7)	93.71	97.81
		NO_X (7)	39.00	83.83
		PM	2.42	10.41
		PM_{10}	2.42	10.41
		$PM_{2.5}$	2.42	10.41
		SO_2 (7)	15.85	10.80
		VOC	1.75	7.53

Emission Sources - Maximum Allowable Emission Rates

33-36-4	33 Cracking Furnace 4	CO (7)	93.71	97.81
		NO_X (7)	39.00	83.83
		PM	2.42	10.41
		PM_{10}	2.42	10.41
		$PM_{2.5}$	2.42	10.41
		SO_2 (7)	15.85	10.80
		VOC	1.75	7.53
33-36-5	33 Cracking Furnace 5	CO (7)	93.71	97.81
		NO_X (7)	39.00	83.83
		PM	2.42	10.41
		PM_{10}	2.42	10.41
		$PM_{2.5}$	2.42	10.41
		SO_2 (7)	15.85	10.80
		VOC	1.75	7.53
33-36-6	33 Cracking Furnace 6	CO (7)	93.71	97.81
		NO_X (7)	39.00	83.83
		PM	2.42	10.41
		PM_{10}	2.42	10.41
		$PM_{2.5}$	2.42	10.41
		SO_2 (7)	15.85	10.80
		VOC	1.75	7.53
33-36-7	33 Cracking Furnace 7	CO (7)	93.71	83.09
		NO_X (7)	39.00	71.22
		PM	2.42	8.84
		PM_{10}	2.42	8.84
		$PM_{2.5}$	2.42	8.84
		SO_2 (7)	15.85	9.17
		VOC	1.75	6.40

Emission Sources - Maximum Allowable Emission Rates

33-36-8	33 Cracking Furnace 8	CO (7)	93.71	82.78
		NO_X (7)	39.00	70.96
		PM	2.42	8.81
		PM_{10}	2.42	8.81
		$PM_{2.5}$	2.42	8.81
		SO_2 (7)	15.85	9.14
		VOC	1.75	6.38
33-36-9	33 Cracking Furnace 9	CO (7)	93.71	82.78
		NO_X (7)	39.00	70.96
		PM	2.42	8.81
		PM_{10}	2.42	8.81
		$PM_{2.5}$	2.42	8.81
		SO_2 (7)	15.85	9.14
		VOC	1.75	6.38
33-36-10	33 Cracking Furnace 10	CO	93.90	37.60
		NH_3	1.50	4.78
		NO_X	19.50	17.08
		PM	2.42	8.49
		PM_{10}	2.42	8.49
		$PM_{2.5}$	2.42	8.49
		SO_2	8.65	8.04
		VOC	1.75	6.14
56-61-4	Unit 10D/18 Process Flare (Flare #4)	CO	22.58	19.68
		H_2S	0.02	0.06
		NO_X	4.43	3.86
		SO_2	1.49	4.82
		VOC	20.55	2.91
56-61-8	Unit 10, 12 Low-Pressure Flare (Flare #8)	CO	45.76	32.59
		H_2S	0.03	0.12
		NO_X	6.65	5.45
		SO_2	3.06	11.63
		VOC	20.65	18.67

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56-61-9	Unit 10, 12 High-Pressure Flare (Flare #9)	CO	0.37	1.61
		H_2S	<0.01	<0.01
		NO_X	0.07	0.32
		SO_2	0.08	0.34
		VOC	0.03	0.15
56-61-10	Unit 21, 22 Low-Pressure Flare (Flare #10)	CO	18.32	27.35
		H_2S	<0.01	0.06
		NO_X	3.59	5.37
		SO_2	8.56	2.21
		VOC	11.10	10.96
56-61-12	Unit 22 High-Pressure Flare (Flare #12)	CO	0.34	1.48
		H_2S	<0.01	<0.01
		NO_X	0.07	0.29
		SO_2	0.07	0.31
		VOC	0.03	0.14
56-61-14	Unit 24 High-Pressure Flare (Flare #14)	CO	0.99	4.33
		H_2S	<0.01	<0.01
		NO_X	0.12	0.50
		SO_2	0.13	0.58
		VOC	0.06	0.26
56-61-20	Unit 24 Low-Pressure Flare (Flare #20)	CO	68.67	79.11
		H_2S	0.04	0.17
		NO_X	32.79	32.59
		SO_2	10.79	15.75
		VOC	25.80	22.77
56-61-22	Unit 33 Process Flare (Flare #22)	CO (7)	40.09	88.48
		H_2S	0.02	0.09
		NO_X (7)	7.87	17.36
		SO_2 (7)	9.52	9.50
		VOC	21.41	12.27
54-22-5	Unit 12 Cooling Tower (CT-5)	PM	1.62	7.10
		PM_{10}	1.59	6.96
		$PM_{2.5}$	0.36	1.57
		VOC	1.70	2.13
54-22-6	Unit 10ABC Cooling Tower (CT-6)	PM	1.24	5.42

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	1.21	5.31
		$PM_{2.5}$	0.27	1.20
		VOC	1.30	1.62
54-22-7	Unit 10ABC Cooling Tower (CT-7)	PM	1.56	6.85
		PM_{10}	1.53	6.72
		$PM_{2.5}$	0.35	1.52
		VOC	1.64	2.05
54-22-9	Unit 10D/18 Cooling Tower (CT-9)	PM	1.40	6.15
		PM_{10}	1.38	6.02
		$PM_{2.5}$	0.31	1.36
		VOC	1.47	1.84
54-22-12	Unit 21/22 Cooling Tower (CT-12)	PM	2.32	10.17
		PM_{10}	2.28	9.97
		$PM_{2.5}$	0.51	2.25
		VOC	2.44	3.05
54-22-13	Unit 24 Cooling Tower (CT-13)	PM	3.17	13.89
		PM_{10}	3.11	13.62
		$PM_{2.5}$	0.70	3.07
		VOC	3.33	4.16
54-22-17	Unit 33 Cooling Tower (CT-17)	PM	5.82	25.49
		PM_{10}	5.71	24.99
		$PM_{2.5}$	1.29	5.64
		VOC	6.11	7.64
10.1-0-0	Unit 10AC Process Fugitives (5)	VOC	5.03	22.01
		Benzene (8)	<0.01	0.03
10.2-0-0	Unit 10D Process Fugitives (5)	VOC	2.50	10.92
		Benzene (8)	<0.01	0.01
10.3-0-0	Unit 10B Process Fugitives (5)	VOC	1.13	4.96
		Benzene (8)	<0.01	<0.01
12-0-0	Unit 12 Process Fugitives (5)	VOC	1.91	8.38
		Benzene (8)	0.11	0.48
18-0-0	Unit 18 Process Fugitives (5)	VOC	1.60	7.01
21-0-0	Unit 21 Process Fugitives (5)	VOC	0.84	3.69
		Benzene (8)	<0.01	0.02
22-0-0	Unit 22 Process Fugitives (5)	VOC	12.44	51.75

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		Benzene (8)	0.13	0.57
		NH_3	0.04	0.16
24-0-0	Unit 24 Process Fugitives (5)	VOC	19.82	86.82
		Benzene (8)	0.21	0.93
24.1-0-0	Unit 24.1 Process Fugitives (5)	VOC	2.90	12.71
		Benzene (8)	0.96	4.21
33-0-0	Unit 33 Process Fugitives (5)(6)	VOC	18.52	81.15
		Benzene (8)	0.35	1.49
33.1-0-0	U33 F-10 Fugitives (5)	NH_3	0.23	0.98
		VOC	0.20	0.85
		Benzene (8)	<0.01	<0.01
68.1-0-0	West Pipe Rack Fugitives (5)	VOC	0.53	2.34
		Benzene (8)	0.16	0.71
24-95-314	Methanol Storage Tank	VOC	3.31	0.08
33-95-10	Methanol Storage Tank	VOC	3.31	0.08
33-95-14	TBC Storage Tank	VOC	0.03	<0.01
10-95-328	D-328 Seal Oil Reservoir	VOC	0.01	0.05
10-95-357	D-357 Lube/Seal Oil Reservoir	VOC	0.01	0.05
18-95-54	D-54 Lube/Seal Oil Reservoir	VOC	0.01	0.05
21-95-120	D-120 Lube/Seal Oil Reservoir	VOC	0.01	0.05
22-95-100	D-100 Lube Oil Reservoir	VOC	0.01	0.05
22-95-101	D-101 Lube Oil Reservoir	VOC	0.01	0.05
22-95-120	D-120 Lube/Seal Oil Reservoir	VOC	0.01	0.05
22-95-130	D-130 Lube/Seal Oil Reservoir	VOC	0.01	0.05
24-95-304	D-304 Lube/Seal Oil Reservoir	VOC	0.01	0.05
24-95-305	D-305 Lube/Seal Oil Reservoir	VOC	0.01	0.05
24-95-306	D-306 Lube/Seal Oil Reservoir	VOC	0.01	0.05
24-95-307	D-307 Seal Oil Reservoir	VOC	0.01	0.05
33-95-15	D-15 Lube/Seal Oil Reservoir	VOC	0.01	0.05
33-95-17	D-17 Lube/Seal Oil Reservoir	VOC	0.01	0.05
33-95-19	D-19 Lube/Seal Oil Reservoir	VOC	0.01	0.05
33-95-390	D-390 Seal Oil Reservoir	VOC	0.01	0.05
33-95-392	D-392 Seal Oil Reservoir	VOC	0.01	0.05
33-95-394	D-394 Seal Oil Reservoir	VOC	0.01	0.05
10-95-3572	D-357 LO Res. - 2nd Vent	VOC	0.01	0.05

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10-95-357A	D-357A Degassing Chamber	VOC	0.01	0.05
24-95-319	D-319 Lube/Seal Oil Reservoir	VOC	0.01	0.05
24-95-320	D-320 Lube/Seal Oil Reservoir	VOC	0.01	0.05
24-95-321	D-321 Lube/Seal Oil Reservoir	VOC	0.01	0.05
10.1-SUMP1	10.1 Oily Water Sewer Sump	VOC	0.03	<0.01
12-SUMP1	12 Oily Water Sewer Sump	VOC	0.02	<0.01
21/22-SUMP1	21/22 Oily Water Sewer Sump	VOC	0.01	<0.01
24-SUMP2	24 Ethylene Sodium Hydroxide Sump	VOC	<0.01	0.01
24-SUMP3	24 Oily Water Sewer Sump	VOC	<0.01	0.01
33-SUMP1	33 Sodium Hydroxide Sump	VOC	<0.01	0.03
33-SUMP2	33 Water Sludge Pit	VOC	<0.01	<0.01
33-SUMP3	33 Oily Water Sewer Sump	VOC	0.01	<0.01
33-SUMP4	33 Blowdown Drum Sump	VOC	<0.01	<0.01
22-95-27	C-120 Propylene Compressor Turbine (9)	CO	12.05	52.77
		NOx	36.83	161.30
		PM	0.84	3.70
		PM_{10}	0.84	3.70
		$PM_{2.5}$	0.84	3.70
		SO2	0.44	1.91
		VOC	1.41	6.17
10ABC-AV	Unit 10ABC Analyzer Vents	VOC	<0.01	<0.01
10D-AV	Unit 10D Analyzer Vents	VOC	<0.01	<0.01
12-AV	Unit 12 Analyzer Vents	VOC	<0.01	<0.01
18-AV	Unit 18 Analyzer Vents	VOC	<0.01	<0.01
21-AV	Unit 21 Analyzer Vents	VOC	<0.01	<0.01
22-AV	Unit 22 Analyzer Vents	VOC	<0.01	<0.01
24-AV	Unit 24 Analyzer Vents	VOC	<0.01	<0.01
33-AV	Unit 33 Analyzer Vents	VOC	0.16	0.70

Emission Sources - Maximum Allowable Emission Rates

Caps			
Emission Point Nos. (1)	**Air Contaminant Name (3)**	**Emission Rates**	
		lbs/hour	**TPY (4)**
EPNs: 22-36-1, 22-36-2, 22-36-3, 22-36-4, 22-36-5, 22-36-6, 22-36-7, 22-36-8, 24-36-1, 24-36-2, 24-36-3, 24-36-4, 24-36-5, 24-36-6, 24-36-7, 24-36-8, 24-36-9, 33-36-1, 33-36-2, 33-36-3, 33-36-4, 33-36-5, 33-36-6, 33-36-7, 33-36-8, 33-36-9, 56-61-10, 56-61-12, 56-61-14, 56-61-20, 56-61-22	CO	478.74	2058.44
EPNs: 56-61-4, 56-61-8, 56-61-9	CO	63.13	40.89
	NO_X	12.39	8.00
EPNs: 56-61-4, 56-61-8, 56-61-9, 56-61-10, 56-61-12, 56-61-14, 56-61-20, 56-61-22	H_2S	0.06	0.26
EPNs: 22-36-1, 22-36-2, 22-36-3, 22-36-4, 22-36-5, 22-36-6, 22-36-7, 22-36-8, 24-36-1, 24-36-2, 24-36-3, 24-36-4, 24-36-5, 24-36-6, 24-36-7, 24-36-8, 24-36-9, 33-36-1, 33-36-2, 33-36-3, 33-36-4, 33-36-5, 33-36-6, 33-36-7, 33-36-8, 33-36-9, 56-61-10, 56-61-12, 56-61-14, 56-61-20, 56-61-22, 22-95-27	NO_X	436.25	1896.24
EPNs: 54-22-5, 54-22-6, 54-22-7, 54-22-9, 54-22-12, 54-22-13, 54-22-17	PM	27.16	118.97
EPNs: 22-36-1, 22-36-2, 22-36-3, 22-36-4, 22-36-5, 22-36-6, 22-36-7, 22-36-8, 24-36-1, 24-36-2, 24-36-3, 24-36-4, 24-36-5, 24-36-6, 24-36-7, 24-36-8, 24-36-9, 33-36-1, 33-36-2, 33-36-3, 33-36-4, 33-36-5, 33-36-6, 33-36-7, 33-36-8, 33-36-9	PM_{10}	41.44	181.52
EPNs: 22-36-1, 22-36-2, 22-36-3, 22-36-4, 22-36-5, 22-36-6, 22-36-7, 22-36-8, 24-36-1, 24-36-2, 24-36-3, 24-36-4, 24-36-5, 24-36-6, 24-36-7, 24-36-8, 24-36-9, 33-36-1, 33-36-2, 33-36-3, 33-36-4, 33-36-5, 33-36-6, 33-36-7, 33-36-8, 33-36-9	SO_2	223.95	374.53
EPNs: 56-61-4, 56-61-8, 56-61-9, 56-61-10, 56-61-12, 56-61-14, 56-61-20, 56-61-22	SO_2	18.05	24.72
EPNs: 22-36-1, 22-36-2, 22-36-3, 22-36-4, 22-36-5, 22-36-6, 22-36-7, 22-36-8, 24-36-1, 24-36-2, 24-36-3, 24-36-4, 24-36-5, 24-36-6, 24-36-7, 24-36-8, 24-36-9, 33-36-1, 33-36-2, 33-36-3, 33-36-4, 33-36-5, 33-36-6, 33-36-7, 33-36-8, 33-36-9, 56-61-4, 56-61-8, 56-61-9, 56-61-10, 56-61-12, 56-61-14, 56-61-20, 56-61-22, 54-22-5, 54-22-6, 54-22-7, 54-22-9, 54-22-12, 54-22-13, 54-22-17, 10.1-0-0, 10.2-0-0, 10.3-0-0, 12-0-0, 18-0-0, 21-0-0, 22-0-0, 24-0-0, 24.1-0-0, 33-0-0, 24-95-314, 33-95-10, 33-95-14, 10-95-328,	VOC	127.95	494.24

Emission Sources - Maximum Allowable Emission Rates

10-95-357, 18-95-54, 21-95-120, 22-95-120, 22-95-130, 22-95-101, 22-95-100, 24-95-304, 24-95-305, 24-95-306, 24-95-307, 33-95-15, 33-95-17, 33-95-19, 33-95-390, 33-95-392, 33-95-394, 10-95-3572, 10-95-357A, 24-95-319, 24-95-320, 24-95-321, 10.1-SUMP1, 12-SUMP1, 21/22-SUMP1, 24-SUMP2, 24-SUMP3, 33-SUMP1, 33-SUMP2, 33-SUMP3, 33-SUMP4, 10ABC-AV, 10D-AV, 12-AV, 18-AV, 21-AV, 22-AV, 24-AV, 33-AV, 68.1-0-0			
EPNs: 10.1-0-0, 10.2-0-0, 10.3-0-0, 12-0-0, 21-0-0, 22-0-0, 24-0-0, 24.1-0-0, 33-0-0, 68.1-0-0	Benzene (8)	1.74	7.60

Emission Sources - Maximum Allowable Emission Rates

Planned Maintenance, Startup, and Shutdown (MSS) Caps				
Emission Point Nos. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**	
			lbs/hour	**TPY (4)**
Decoking Equipment MSS				
22-95-3, 22-95-3A, 22-95-3B, and 22-95-3C	U22 Decoke	CO		
24-95-300	U24 Decoke	CO		
33-95-376 and 33-95-376A	U33 Decoke	CO		
	Emission Cap for the EPNs Listed Above	**CO**	**792.82**	**88.77**
Flare System MSS				
56-61-4	Unit 10D/18 Process Flare 4	CO		
56-61-8	Unit 10, 12 Low-Pressure Flare 8	CO		
56-61-9	Unit 10, 12 High-Pressure Flare 9	CO		
56-61-10	Unit 21, 22 Low-Pressure Flare 10	CO		
56-61-12	Unit 22 High-Pressure Flare 12	CO		
56-61-14	Unit 24 High-Pressure Flare 14	CO		
56-61-20	Unit 24 Low-Pressure Flare 20	CO		
56-61-22	Unit 33 Process Flare 22	CO		
	Emission Cap for the EPNs Listed Above	**CO**	**7505.60**	**137.12**
Flare System MSS				
56-61-4	Unit 10D/18 Process Flare 4	NO_X		
56-61-8	Unit 10, 12 Low-Pressure Flare 8	NO_X		
56-61-9	Unit 10, 12 High-Pressure Flare 9	NO_X		
56-61-10	Unit 21, 22 Low-Pressure Flare 10	NO_X		
56-61-12	Unit 22 High-Pressure Flare 12	NO_X		
56-61-14	Unit 24 High-Pressure Flare 14	NO_X		
56-61-20	Unit 24 Low-Pressure Flare 20	NO_X		
56-61-22	Unit 33 Process Flare 22	NO_X		
	Emission Cap for the EPNs Listed Above	**NO_X**	**1513.37**	**28.82**
MSS				
22-95-3, 22-95-3A, 22-95-3B, and 22-95-3C	U22 Decoke	PM		
24-95-300	U24 Decoke	PM		
33-95-376 and 33-95-376A	U33 Decoke	PM		
CPC-ABLAST	Abrasive Blasting	PM		
CPC-PAINT	Painting	PM		
Catalyst	Catalyst Handling	PM		
	Emission Cap for the EPNs Listed Above	**PM**	**621.98**	**66.29**

Emission Sources - Maximum Allowable Emission Rates

MSS 56-61-4 56-61-8 56-61-9 56-61-10 56-61-12 56-61-14 56-61-20 56-61-22 CPC-Paint MSSATM	 Unit 10D/18 Process Flare 4 Unit 10, 12 Low-Pressure Flare 8 Unit 10, 12 High-Pressure Flare 9 Unit 21, 22 Low-Pressure Flare 10 Unit 22 High-Pressure Flare 12 Unit 24 High-Pressure Flare 14 Unit 24 Low-Pressure Flare 20 Unit 33 Process Flare 22 Painting Atmospheric Venting/Purging (See Attachment B for a list of activities)	 VOC VOC VOC VOC VOC VOC VOC VOC VOC VOC		
	Emission Cap for the EPNs Listed Above	**VOC**	**5247.80**	**124.41**
MSS 56-61-4 56-61-8 56-61-9 56-61-10 56-61-12 56-61-14 56-61-20 56-61-22 MSSATM	 Unit 10D/18 Process Flare 4 Unit 10, 12 Low-Pressure Flare 8 Unit 10, 12 High-Pressure Flare 9 Unit 21, 22 Low-Pressure Flare 10 Unit 22 High-Pressure Flare 12 Unit 24 High-Pressure Flare 14 Unit 24 Low-Pressure Flare 20 Unit 33 Process Flare 22 Atmospheric Venting/Purging (See Attachment B for a list of activities)	 Benzene Benzene Benzene Benzene Benzene Benzene Benzene Benzene Benzene		
	Emission Cap for the EPNs Listed Above	**Benzene**	**176.72**	**2.88**

(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) CO - carbon monoxide
H_2S - hydrogen sulfide
NH_3 - Ammonia
NO_X - total oxides of nitrogen
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
SO_2 - sulfur dioxide
(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) Excluding fugitives associated with Furnace 10.
(7) This pollutant is also covered by Permit No. PSDTX751M1.
(8) Benzene emissions are included in the VOC emissions limit.

(9) Emissions from the Propylene Compressor Turbine (EPN 22-95-27) are prohibited upon commencement of operation of TCEQ Project No. 346268. See Special Condition No. 64.
(10) Short-term emission limit applicable to operating scenarios defined in SC No. 7.C.

Date: TBD

Emission Sources - Maximum Allowable Emission Rates

Emission Sources - Maximum Allowable Emission Rates

Permit Number 22690

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions associated with TCEQ Project No. 346268, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized 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 authorized by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates
			TPY (4)
22-36-9	22 Furnace 9	CO_2 (5)	77,694.00
		CH_4 (5)	3.91
		N_2O (5)	0.78
		CO_2e	78,024.19
56-61-10	Unit 21/22 Low-Pressure Flare (6)	CO_2 (5)	12,870.98
		CH_4 (5)	0.52
		N_2O (5)	0.10
		CO_2e	12,915.15
22-0-0	Unit 22 Process Fugitives (6)	CH_4 (5)	0.14
		CO_2e	3.38

(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) CO_2 - carbon dioxide
N_2O - nitrous oxide
CH_4 - methane
HFCs - hydrofluorocarbons
PFCs - perfluorocarbons
SF_6 - sulfur hexafluoride
CO_2e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015): CO_2 (1), N_2O (298), CH_4(25), SF_6 (22,800), HFC (various), PFC (various)
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.
(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.
(6) GHG emissions limited to project piping additions and flaring associated with TCEQ Project No. 346268.

Date: TBD