

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 4682B and PSDTX761M2

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				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
1A	USC Furnace A	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1B	USC Furnace B	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1C	USC Furnace C	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1D	USC Furnace D	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1E	USC Furnace E	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
1F	USC Furnace F	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1G	USC Furnace G	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1H	USC Furnace H	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1J	USC Furnace J	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1K	USC Furnace K	CO (8)	11.98	52.48
		NO _x	27.10	118.71
		PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
1L	USC Furnace L	CO (8)	11.98	52.48
		NO _x	27.10	118.71

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
1M	USC Furnace M	PM ₁₀	1.08	4.75
		SO ₂	0.09	0.39
		VOC	0.78	3.44
		CO	20.36	89.19
		NO _x	27.30	119.58
		NO _x (decoking)	20.88	13.15
		PM ₁₀	1.84	8.07
		SO ₂	0.15	0.67
		VOC	1.33	5.84
		CO	20.36	89.19
		NO _x	27.30	119.58
		NO _x (decoking)	20.88	7.52
1N	USC Furnace N	PM ₁₀	1.84	8.07
		SO ₂	0.15	0.67
		VOC	1.33	5.84
3A	VMR Furnace A	CO (8)	7.28	31.90
		NO _x	8.67	37.98
		PM ₁₀	0.66	2.89
		SO ₂	0.05	0.24
		VOC	0.48	2.09
3B	VMR Furnace B	CO (8)	7.28	31.90
		NO _x	8.67	37.98
		PM ₁₀	0.66	2.89
		SO ₂	0.05	0.24
		VOC	0.48	2.09
4A	HP Steam Boiler A	CO	23.65	103.59
		NO _x	94.63	414.46
		PM ₁₀	23.14	101.33
		SO ₂	284.48	1246.04

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
		SO ₃	10.33	45.24
		VOC	1.56	6.78
4B	HP Steam Boiler B	CO	23.65	103.59
		NO _x	53.50	234.32
		PM ₁₀	2.14	9.37
		SO ₂	0.18	0.78
		VOC	1.56	6.78
4C	HP Steam Boiler C	CO	23.65	103.59
		NO _x	53.50	234.32
		PM ₁₀	2.14	9.37
		SO ₂	0.18	0.78
		VOC	1.56	6.78
4D	HP Steam Boiler D	CO	23.65	103.59
		NO _x	53.50	234.32
		PM ₁₀	2.14	9.37
		SO ₂	0.18	0.78
		VOC	1.56	6.78
5A	Steam Superheater A	CO	5.25	22.98
		NO _x	6.25	27.36
		PM ₁₀	0.47	2.08
		SO ₂	0.04	0.17
		VOC	0.34	1.50
5B	Steam Superheater B	CO	5.25	22.98
		NO _x	6.25	27.36
		PM ₁₀	0.47	2.08
		SO ₂	0.04	0.17
		VOC	0.34	1.50

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
6	HDA Feed Heater	CO	7.08	31.00
		NO _x	8.42	36.90
		PM ₁₀	0.64	2.80
		SO ₂	0.05	0.23
		VOC	0.46	2.03
7	HDA Recycle Heater	CO	0.49	2.15
		NO _x	0.59	2.56
		PM ₁₀	0.04	0.19
		SO ₂	0.01	0.02
		VOC	0.03	0.14
8	Dryer Regeneration Heater	CO	1.61	7.05
		NO _x	1.92	8.39
		PM ₁₀	0.15	0.64
		SO ₂	0.01	0.05
		VOC	0.11	0.46
8A	Cat. Reactivation Furnace	CO	2.12	9.30
		NO _x	2.53	11.07
		PM ₁₀	0.19	0.84
		SO ₂	0.02	0.07
		VOC	0.14	0.61
9A	Decoking Cyclone	CO (9)	1674.80	80.06
		PM	9.91	0.80
		PM ₁₀	3.05	0.25
		VOC	0.03	0.02
9B	Decoking Cyclone	CO (9)	906.86	66.37
		PM	6.82	0.66
		PM ₁₀	2.10	0.21
		VOC	0.03	0.02
10	Hot Flare	CO	1092.65	37.00
		NO _x	209.76	8.21
		SO ₂	64.68	2.51

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
11	Cold Flare	VOC	369.22	6.94
		CO	100.84	13.84
		NO _x	19.39	2.92
		SO ₂	0.08	0.13
		VOC	76.88	2.61
12	Cooling Tower (4)	VOC	2.92	12.79
13C	Carbon Canisters in Series	VOC	0.04	0.01
16	Naptha Feedstock Day Tank	VOC	1.52	2.52
17	Kerosene Feedstock Day Tank	VOC	1.52	2.47
18	Light Fuel Oil Tank	VOC	3.07	4.30
19	Raw Pyrolysis Gasoline Tank	VOC	1.74	4.90
20A	Heavy Oil Fuel Tank	VOC	4.30	5.10
20B	Heavy Oil Fuel Tank	VOC	4.30	5.10
23A	Benzene Tank	VOC	0.17	0.31
24	HDA Tank	VOC	1.45	3.94
30A	Feedstock Tank	VOC	3.37	10.01
30B	Feedstock Tank	VOC	3.37	10.04
30C	Feedstock Tank	VOC	3.39	10.13
31	Second Stage Feed Heater	CO	1.27	5.55
		NO _x	1.51	6.60
		PM ₁₀	0.11	0.50
		SO ₂	0.01	0.04

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
		VOC	0.08	0.36
32	Lube Oil Tank	VOC	16.27	0.15
33	Wash Oil Tank	VOC	0.23	0.43
39A	Spent Caustic Gasoline Wash Tank 1.07	VOC		0.64
39B	Spent Caustic Gasoline Wash Tank 0.85	VOC		0.41
40	Recovered Oil Tank	VOC	0.30	0.87
42	Methanol Tank	VOC	4.08	0.04
43	Fuel Oil Truck Loading	VOC	29.63	7.04
50	Spent Caustic Wastewater	VOC	0.03	0.06
51	Spent Caustic Wastewater	VOC	0.06	0.12
52	Wastewater Tank	VOC	0.75	1.15
53	Slop Oil Tank	VOC	0.26	0.77
55	Hot Water Belt Tank	VOC	1.01	3.19
AC-1	Air Compressor Engine No. 1 (7)	CO	2.74	2.05
		NOx	3.03	2.27
		PM ₁₀	0.16	0.12
		SO ₂	0.97	0.73
		VOC	0.12	0.09
AC-2	Air Compressor Engine No. 2 (7)	CO	2.74	2.05
		NOx	3.03	2.27
		PM ₁₀	0.16	0.12
		SO ₂	0.97	0.73
		VOC	0.12	0.09

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
F2602A	Vehicle Diesel Tank	VOC	0.70	0.01
F2603	Vehicle Gasoline Tank	VOC	51.22	1.26
FA1665	Diesel Tank	VOC	0.22	0.01
FU-1	EMACT Process Fugitive (4)	VOC	23.13	101.36
FU-2	HON Process Fugitive (4)	VOC	0.93	4.08
FU-3	Process Fugitive (4)	VOC (10)	17.90	78.41
		VOC (11)	13.73	60.13
FU-4	NESHAP FF Fugitive (4)	VOC	0.02	0.10
FWDIESELA	Firewater Diesel Tank	VOC	0.02	0.01
FWDIESELB	Firewater Diesel Tank	VOC	0.02	0.01
FWDIESELC	Firewater Diesel Tank	VOC	0.02	0.01
FWDIESELD	Firewater Diesel Tank	VOC	0.02	0.01
J-2019-A	Olefin Firewater Engine (6)	CO	2.87	0.36
		NOx	13.33	1.67
		PM ₁₀	0.95	0.12
		SO ₂	0.88	0.11
		VOC	1.06	0.13
J-2019-B	Olefin Firewater Engine (6)	CO	2.87	0.36
		NOx	13.33	1.67
		PM ₁₀	0.95	0.12
		SO ₂	0.88	0.11
		VOC	1.06	0.13
J-2019-C	Olefin Firewater Engine (6)	CO	2.87	0.36
		NOx	13.33	1.67
		PM ₁₀	0.95	0.12
		SO ₂	0.88	0.11
		VOC	1.06	0.13

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
J-2019-D	Olefin Firewater Engine (6)	CO	2.87	0.36
		NO _x	13.33	1.67
		PM ₁₀	0.95	0.12
		SO ₂	0.88	0.11
		VOC	1.06	0.13
L-1697	Emergency Generator (5)	CO	0.85	0.02
		NO _x	10.37	0.27
		PM ₁₀	0.06	0.01
		SO ₂	1.65	0.04
		VOC	0.02	0.01
WWC-1	Wastewater Collection	VOC	1.37	0.22
PAINT	Painting	VOC	7.39	4.81

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.

(2) Specific point source names. For fugitive sources use area name or fugitive source name.

(3) CO - carbon monoxide

NO_x - total oxides of nitrogen

PM - particulate matter

PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

SO₂ - sulfur dioxide

SO₃ - sulfur trioxide

VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1

(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.

(5) 52 hours per rolling twelve months of operation

(6) 250 hours per rolling twelve months of operation

(7) 1500 hours per rolling twelve months of operation

(8) PSDTX761M1 pollutant

(9) PSDTX761M2 pollutant

(10) Pre control emissions

(11) Post control emissions

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated month day, 2011