

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 4682B/PSD-TX-761M1

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)	<u>Emission Rates*</u>	
			#/hr	TPY
1L	USC Furnace L (5)	VOC	0.5	2.2
		NOx	27.3	119.6
		SO2	0.21	0.92
		PM	1.8	7.9
		CO	14.1	61.8
1M	USC Furnace M (5)	VOC	0.5	2.2
		NOx	27.3	119.6
		SO2	0.21	0.92
		PM	1.8	7.9
		CO	14.1	61.8
1N	USC Furnace N (6)	VOC	0.5	2.2
		NOx	27.3	119.6
		SO2	0.21	0.92
		PM	1.8	7.9
		CO	14.1	61.8
9A	Decoking Cyclone (5)	PM	9.0**	3.7
		CO	29.2**	4.5
9B	Decoking Cyclone (5)	PM	9.0**	3.9
		CO	29.2**	5.1
45	Tank (6)	VOC	0.9	3.8
		Benzene	0.006	0.025
	Fugitives (4)	VOC	6.2	27.2
		Benzene	0.08	0.35

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
1A	USC Furnace A	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
1B	USC Furnace B	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1C	USC Furnace C	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1D	USC Furnace D	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1E	USC Furnace E	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1F	USC Furnace F	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1G	USC Furnace G	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1H	USC Furnace H	VOC	0.74	3.24

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
1J	USC Furnace J	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
1K	USC Furnace K	VOC	0.74	3.24
		NOx	29.70	130.09
		SO2	51.40	225.13
		PM	1.37	6.0
		CO	1.97	8.63
3A	VMR Furnace A	VOC	0.50	2.19
		NOx	20.00	87.6
		SO2	34.50	151.11
		PM	0.92	4.03
		CO	1.7	7.5
3B	VMR Furnace B	VOC	0.50	2.19
		NOx	20.00	87.6
		SO2	34.50	151.11
		PM	0.92	4.03
		CO	1.7	7.5
4A	HP Steam Boiler A	VOC	2.23	9.77
		NOx	133.70	585.6
		SO2	324.30	1420.4
		PM	32.20	141.04
		CO	7.2	31.54
4B	HP Steam Boiler B	VOC	2.23	9.77
		NOx	133.70	585.6
		SO2	324.30	1420.4
		PM	32.20	141.04
		CO	7.2	31.54
4C	HP Steam Boiler C	VOC	2.23	9.77

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
		NOx	133.70	585.6
		SO2	324.30	1420.4
		PM	32.20	141.04
		CO	7.2	31.54

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
4D	HP Steam Boiler D	VOC	2.23	9.77
		NOx	133.70	585.6
		SO2	324.30	1420.4
		PM	32.20	141.04
		CO	7.2	31.54
5A	Steam S. Heater A	VOC	0.67	2.93
		NOx	39.90	174.80
		SO2	96.80	423.98
		PM	9.61	42.1
		CO	2.6	11.39
5B	Steam S. Heater B	VOC	0.67	2.93
		NOx	39.90	174.80
		SO2	96.80	423.98
		PM	9.61	42.1
		CO	2.6	11.39
6	HDA Feed Heater	VOC	1.78	7.80
		NOx	18.00	78.80
		PM	0.51	2.23
		CO	1.32	5.78
7	HDA Rec. Heater	VOC	0.02	0.09
		NOx	1.30	5.69
		PM	0.04	0.18
		CO	0.11	0.48
8	Dryer Regen. Heater	VOC	0.08	0.35
		NOx	4.70	20.59
		PM	0.14	0.61
		CO	0.30	1.31
8A	Cat. React. Furnace	VOC	0.11	0.48
		NOx	6.30	27.59
		PM	0.18	0.79
		CO	0.40	1.75

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>		
			#/hr	TPY	
31	2nd Stage Feed Heater	VOC	0.06		0.26
		NOx	3.30		14.45
		PM	0.09		0.39

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
10, 11	Hot and Cold Flares		VOC	3.00
12	Cooling Tower		VOC	3.00
13A, B, C	CPI Separators		VOC	1.00
43	Fuel Oil Truck Loading		VOC	4.90
	All Flanges		VOC	5.00
	All Pumps and Compressors		VOC	0.25
	All Valves		VOC	30.00
	Maintenance (Painting)		VOC	3.00
16	Naphtha Feed Tank		VOC	1.52+
17	Gas Oil Feed Tank		VOC	0.46+
18	Light Fuel Oil Tank		VOC	1.13+
19	Gasoline Tank		VOC	6.41+
20A, B	Heavy Oil Fuel Tanks		VOC	8.38+
23A, B	Benzene Tanks		VOC	3.78+
24	C6-C8 Tank		VOC	2.01+
30A, B, C	Naphtha Feedstock Tanks		VOC	42.82+
32	Lube Oil Tank		VOC	0.05+
33	Wash Oil Tank		VOC	0.56+
39A	Spent Caustic Gasoline Wash Tank		VOC	0.43
				0.40+
39B	Spent Caustic Gasoline Wash Tank		VOC	0.43
				0.40+

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
40	Recovered Oil Tank		VOC	0.10+
41	Froth Holding Tank		VOC	0.09+

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
42	Methanol Tank		VOC	0.10+
50	Spent Caustic Wastewater		VOC	<0.01
51	Spent Caustic Wastewater		VOC	<0.01
52	Wastewater Tank		VOC	<0.01
53	Slop Oil Tank		VOC	0.47
FU-4	NESHAPS Fugitives (4)		VOC	0.56
FU-5	Biphenyl Export Fugitives (4)		VOC	0.23

- (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 General Rule 101.1
NOx - total oxides of nitrogen
SO2 - sulfur dioxide
PM - particulate matter
CO - carbon monoxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Modified source.
- (6) New source.

** Averaged over 12 hours.

+ The individual TPY emission rates for each storage tank may be exceeded as long as the aggregate emissions from all storage tanks do not exceed 71.41 TPY.

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

Hrs/day__Days/week__Weeks/year__or Hrs/year__8,760__

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u> #/hr	TPY
---------------------------	--------------------	-----------------------------	--------------------------------	-----

Revised _____