

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 16989

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		Air Contaminant		<u>Emission Rates *</u>	
	Name (2)	Name (3)	lb/hr	TPY		
B11LOU	Cracking Furnace H			NOx	26.00	113.9
				PM10	2.50	11.0
				CO	8.75	38.3
				VOC	2.75	12.1
				SO2	4.87	21.3
B1LOU	Cracking Furnace A			NOx	165.4	660.0
				PM10	1.5	5.9
				CO	12.0	48.2
				VOC	0.4	1.7
				SO2	4.1	16.3
B2LOU	Cracking Furnace B			NOx	165.4	660.0
				PM10	1.5	5.9
				CO	12.0	48.2
				VOC	0.4	1.7
				SO2	4.1	16.3
B3LOU	Cracking Furnace C			NOx	165.4	660.0
				PM10	1.5	5.9
				CO	12.0	48.2
				VOC	0.4	1.7
				SO2	4.1	16.3
B4LOU	Cracking Furnace D			NOx	165.4	660.0
				PM10	1.5	5.9
				CO	12.0	48.2
				VOC	0.4	1.7
				SO2	4.1	16.3
B5LOU	Cracking Furnace E			NOx	165.4	660.0

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PM10	1.5	5.9
CO	12.0	48.2
VOC	0.4	1.7
SO2	4.1	16.3

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	<u>Emission Rates *</u> TPY
B6LOU	Cracking Furnace F	NOx	165.4	660.0
		PM10	1.5	5.9
		CO	12.0	48.2
		VOC	0.4	1.7
		SO2	4.1	16.3
B7LOU	Cracking Furnace G	NOx	165.4	660.0
		PM10	1.5	5.9
		CO	12.0	48.2
		VOC	0.4	1.7
		SO2	4.1	16.3
B8LOU	Ethane Cracking Furnace	NOx	73.8	294.4
		PM10	0.7	2.5
		CO	5.4	21.4
		VOC	0.2	0.8
		SO2	1.8	7.1
B9LOU	Superheater A Fuel Gas-fired	NOx	155.8	544.9
		PM10	1.4	4.8
		CO	11.3	39.4
		VOC	0.4	1.3
		SO2	3.8	13.1
	Superheater A Fuel Oil-fired	NOx	120.9	423.4
		PM10	19.8	69.5
		CO	9.0	31.6
		VOC	1.4	4.8

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B10LOU	Superheater B Fuel Gas-fired	SO2	85.0	297.7
		SO3	4.2	14.7
		NOx	155.8	544.9
		PM10	1.4	4.8
		CO	11.3	39.4
		VOC	0.4	1.3
	Superheater B Fuel Oil-fired	SO2	3.8	13.1
		NOx	120.9	423.4
		PM10	19.8	69.5
		CO	9.0	31.6
		VOC	1.4	4.8
		SO2	85.0	297.7
		SO3	4.2	14.7

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	<u>Emission Rates *</u>	
				TPY	
H1LOU	Regeneration Heater	NOx	2.0	8.8	
		PM10	0.1	0.4	
		CO	0.5	2.2	
		VOC	0.04	0.2	
		SO2	0.01	0.1	
H2LOU	PHU Heater	NOx	1.0	4.4	
		PM10	0.1	0.4	
		CO	0.2	0.9	
		VOC	0.06	0.3	
		SO2	0.1	0.6	
7	API Separator	VOC	54.0	94.6	
V1LOU	Decoking Separator	PM10	1.7	0.4	
		CO	15.8	3.8	
V2LOU	Decoking Separator	PM10	1.7	0.4	
		CO	15.8	3.8	
33752	Equalization Tank	VOC	8.63	3.52	

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33753	Skimmed Oil Tank	VOC	1.15	1.34
T1LOU	Paraffinic Naphtha Tank (Tank No. 33755)	VOC	7.52	31.77
T2LOU	Paraffinic Naphtha Tank (Tank No. 33756)	VOC	5.25	21.99
T7LOU	Raw Pyronaphtha (Tank No. 33799)	VOC	2.86	7.95
T8LOU	Pyrolysis Fuel Oil (Tank No. 33758)	VOC	4.67	0.54
T9LOU	Heavy Slops Oil (Tank No. 33759)	VOC	2.36	2.83

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	<u>Emission Rates *</u> TPY
T10LOU	Pyrolysis Fuel Oil (Tank No. 33760)	VOC	10.15	0.62
FLOU	LOU Fugitives (4) (5)	VOC	57.28	250.92
		Benzene	7.15	31.4
FLOAD	Truck Loading Operation	VOC	6.00	0.33
10	Elevated Flare (continuous)	VOC	1.55	4.24
		NOx	0.32	1.4
		CO	1.63	7.14
TT1596	Storage Tank No. 1596	VOC	4.26	18.20
TT1597	Storage Tank No. 1597	VOC	2.50	6.53

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- (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) PM10 - particulate matter less than 10 microns
VOC - volatile organic compounds as defined in General Rule 101.1
NOx - total oxides of nitrogen
SO2 - sulfur dioxide
SO3 - sulfur trioxide
CO - carbon monoxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Benzene emissions are included in the LOU fugitive allowables.

* 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

Dated _____