

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 19108

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
H-002	No. 1 Crude Charge Htr	VOC	0.03	0.1
		NOx	2.21	9.7
		SO2	0.24	1.1
		PM	0.19	0.8
		CO	0.19	0.8
H-014	Naphtha Splitter Heater When Firing Refinery Fuel Gas	VOC	0.2	1.0
		NOx	17.2	75.4
		SO2	2.0	8.8
		PM	1.5	6.6
		CO	1.5	6.6
	Firing Fuel Oil	VOC	0.4	1.6
		NOx	25.0	109.5
		SO2	19.5	85.4
		PM	7.3	31.8
		CO	1.8	8.0
H-016	Vacuum Charge Heater when Firing Refinery Fuel Gas	VOC	0.6	2.6
		NOx	16.2	70.9
		SO2	3.8	16.5
		PM	4.0	17.5
		CO	4.0	17.5
	Firing Fuel Gas/Fuel Oil	VOC	0.7	3.0
		NOx	18.8	82.4
		SO2	14.2	62.0
		PM	7.3	32.0
		CO	4.2	18.4
H-021	Demex DMO Heater	VOC	0.2	0.8
		NOx	1.6	7.0
		SO2	1.6	4.9

PM	0.4	1.7
CO	1.6	7.0

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
H-022	Asphalt Heater	VOC	0.12	0.5
		NOx	1.05	4.6
		SO2	1.04	3.2
		PM	0.26	1.1
		CO	1.05	4.6
H-023	Demex Tracing Oil Heater	VOC	0.02	0.1
		NOx	0.18	0.8
		SO2	0.18	0.6
		PM	0.05	0.2
		CO	0.18	0.8
H-028	No. 1 Crude Charge Htr	VOC	0.6	2.6
		NOx	16.2	71.0
		SO2	3.8	16.5
		PM	1.4	5.9
		CO	4.0	17.6
H-036	No. 1 Crude Charge Htr	VOC	0.6	2.8
		NOx	5.8	25.4
		SO2	4.0	17.7
		PM	1.4	6.4
		CO	4.3	18.9
H-037	No. 2 HDU Charge Heater	VOC	0.2	0.7
		NOx	1.8	7.9
		SO2	1.0	4.4
		PM	0.4	1.6
		CO	1.1	4.7
H-038	No. 2 HDU Reboiler Heater	VOC	0.1	0.6
		NOx	1.5	6.4
		SO2	0.8	3.5
		PM	0.3	1.3
		CO	0.9	3.8
B-002	Boiler SP-2	VOC	0.1	0.3
		NOx	2.8	12.2
		SO2	0.4	1.6

PM	0.1	0.4
CO	0.7	3.0

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
FL-002	Loading Rack Vapor Combustor	VOC	15.2	4.82
		NOx	2.1	0.7
		CO	6.1	1.95
L-002	Loading Rack Fugitives (4)	VOC	40.0	13.75
F-0682	Crude Unit Sump	VOC	1.86	8.1
F-0680	Waste Water Treatment Unit	VOC	11.16	48.9
FL-501 3.1	West Plant Flare	VOC		1.06
		NOx	0.03	0.1
		SO2	0.55	1.6
		CO	0.34	1.0
F-2900	No. 1 Crude Unit Fug. (4)	VOC	5.82	25.5
F-1400	Vacuum Unit Fugitives (4)	VOC	0.80	3.5
F-2000	Demex Unit Fugitives (4)	VOC	2.69	11.8
F-2010	Demex Flaker Fugitives (4)	VOC	0.02	0.1
F-0100	No. 1 Naphtha Frac Fug. (4)	VOC	1.32	5.8
F-3000	No. 2 Naphtha HDU Fug. (4)	VOC	2.16	9.5
F-0710	Light Ends Fugitives (4)	VOC	8.37	36.6
		H2S	0.12	0.5

- (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

H₂S - hydrogen sulfide

- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

* 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 or Hrs/year 8,760

Dated_____