

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)	Emission Rates	
			lb/hr	TPY
B-002 0.3		Boiler SP-2	VOC	0.1
		NO _x	2.8	12.2
		SO ₂	0.4	1.6
		PM	0.1	0.4
		CO	0.7	3.0
H-002 0.03	0.1	No. 1 Crude Charge Heater	VOC	
		NO _x	2.21	9.7
		SO ₂	0.24	1.1
		PM	0.19	0.8
		CO	0.19	0.8
H-014 0.19	0.83	Naphtha Splitter Heater	VOC	
		NO _x	2.02	8.84
		SO ₂	1.69	5.19
		PM	0.56	2.43
		CO	2.02	8.84
H-016 0.41	1.80	Vacuum Charge Heater	VOC	
		NO _x	13.20	57.81
		SO ₂	3.69	11.31
		PM	1.21	5.30
		CO	4.40	19.27

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
H-021 0.65		Demex DMO Heater VOC	0.15	
		NO _x	1.59	6.97
		SO ₂	1.33	4.09
		PM	0.44	1.92
		CO	1.59	6.97
H-022 0.43		Asphalt Heater VOC	0.10	
		NO _x	1.05	4.58
		SO ₂	0.88	2.69
		PM	0.29	1.26
		CO	1.05	4.58
H-023 0.02	0.07	Demex Tracing Oil Heater VOC		
		NO _x	0.18	0.79
		SO ₂	0.15	0.46
		PM	0.05	0.22
		CO	0.18	0.79
H-028 0.58	2.54	No. 1 Crude Charge Heater VOC		
		NO _x	6.21	27.18
		SO ₂	5.20	15.95
		PM	1.71	7.47
		CO	6.21	27.18
H-036 0.58	2.54	No. 1 Crude Charge Heater VOC		
		NO _x	6.21	27.18
		SO ₂	5.20	15.95
		PM	1.71	7.47
		CO	6.21	27.18

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			lb/hr	TPY
H-037 0.15	0.65	No. 2 HDU Charge Heater	VOC	
		NO _x	1.58	6.94
		SO ₂	1.33	4.07
		PM	0.44	1.91
		CO	1.58	6.94
H-038 0.14	0.61	No. 2 HDU Reboiler Heater	VOC	
		NO _x	1.48	6.46
		SO ₂	1.24	3.79
		PM	0.41	1.78
		CO	1.48	6.46
F-0100 13.13	No. 1 Naphtha Fractionator		VOC	3.00
	Fugitives (4)	H ₂ S	<0.01	<0.01
F-0670	West Plant Cooling Tower	VOC	0.63	2.76
F-0680 52.56	Waste Water Treatment Unit		VOC	12.00
F-0682	Crude Unit Sump	VOC	0.66	2.89
F-0683	No. 1 Reformer Sump	VOC	0.34	1.47
F-0688	Vacuum Unit Sump	VOC	0.42	1.84
F-0689	Crude Unload Sump	VOC	0.04	0.18
F-0700 5.78	No. 1 Stabilizer Unit	Fugitives (4)	VOC	1.32
		H ₂ S	<0.01	<0.01

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			<u>lb/hr</u>	<u>TPY</u>
F-0701 7.41	No. 2 Stabilizer Unit Fugitives (4)	VOC	1.69	
		H ₂ S	<0.01	<0.01
F-0710	Light Ends Fugitives (4)	VOC	1.58	6.93
		H ₂ S	0.02	0.10
F-1400 19.84	Vacuum Unit Fugitives (4)	VOC	4.53	
F-2000	Demex Unit Fugitives (4)	VOC	6.83	29.90
F-2010 1.20	Demex Flaker Fugitives (4)	VOC	0.27	
F-2900 25.5	No. 1 Crude Unit Fugitives (4)	VOC	5.82	
F-3000 14.43	No. 2 Naphtha HDU Fugitives (4)	VOC	3.29	
F-3910 1.47	Aromatics Rail Rack Fugitives (4)	VOC	0.34	

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			<u>lb/hr</u>	<u>TPY</u>
FL-002 6.40	Loading Rack Vapor Combustor	VOC		20.43
		NO _x	2.80	0.87
		CO	8.13	2.53
FL-005	Wastewater Treater Flare	VOC	0.40	1.16
		NO _x	0.05	0.13
		SO ₂	0.04	0.11
		CO	0.37	1.08
FL-501	No. 1 West Plant Flare	VOC	1.06	3.10
		NO _x	0.03	0.14
		SO ₂	0.55	1.60
		CO	0.34	1.04
FL-006	No. 2 West Plant Flare	VOC	1.34	3.03
		NO _x	0.14	0.37
		SO ₂	0.04	0.08
		CO	0.73	1.89
L-001 1.00	0.78	Black Oil Truck Rack	VOC	
L-002 14.26		Gasoline Truck Rack	VOC	39.98
L-005 7.66	1.51	Aromatics Railcar Rack	VOC	

(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

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - particulate matter

CO - carbon monoxide

H₂S - hydrogen sulfide

Permit No. 19108
Page 5

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(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	Days/week
Weeks/year or <u>8,760</u>	Hrs/year	

Dated _____