EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 4773A

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
SGC3CMPFUG	Propylene Refrigeration Fugitives (4)	VOC	1.68	7.36
SGFUG1	Syngas Process Fugitives (4)	VOC	7.18	31.44
		CO	20.32	89.00
SGCT	Cooling Tower	VOC	2.51	11.01
SG810-21-1	Neutralization Tank	VOC	0.02	0.07
SG810-22-1	Equalization Tank	VOC	0.12	0.51
SG810-23	Aeration Basin	VOC	2.47	10.82
SG810-28	West Basin	VOC	11.43	50.06
SG20-1-1	Thermal Oxidizer (Natural Gas)	VOC	<0.10	0.30
		NO_x	4.50	19.80
		SO_2	22.88	90.20
		PM	0.20	0.50
		CO	0.80	3.50
SG20-1-1	Thermal Oxidizer (Fuel Oil)	VOC	<0.10	0.10
		NO_x	6.80	0.60
		SO_2	22.20	1.90
		PM	0.20	<0.10
		CO	0.40	<0.10
SG23-50-1	CE Boiler (Natural Gas)	VOC	2.73	4.02
		NO_x	53.60	235.00
		SO_2	0.20	0.70

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Emission Point No. (1) *	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
		PM	1.40	6.10
		CO	9.97	43.71
SG23-50-1	CE Boiler (HRFG and Natural Gas)	VOC	2.73	4.02
		NO_x	140.00	613.00
		SO_2	0.20	0.70
		PM	1.40	6.10
		CO	9.97	43.71
SG23-51-1	Superheater (Natural Gas)	VOC	0.40	1.90
		NO_x	29.80	131.00
		SO_2	<0.01	0.04
		PM	0.80	3.50
		CO	5.50	24.10
SG23-51-1	Superheater (HRFG and Natural Gas)	VOC	0.40	1.90
		NO_x	99.00	434.00
		SO_2	<0.01	<0.01
		PM	0.80	3.50
		CO	5.50	24.10
SG7-9-14	Stripper Flare	NH_3	0.17	0.74
		CO	0.01	0.05
		NO_x	0.33	1.42
SG20-2-2	Acid Gas Flare (5)	VOC	<0.01	<0.01
		CO	0.04	0.20
		NO_x	0.02	0.10
		SO_2	<0.01	<0.01
		H_2S	<0.01	<0.01
SG20-3-2	Cold Flare (5)	VOC	<0.01	<0.01
		SO_2	<0.01	<0.01
		H_2S	<0.01	<0.01
		NO_x	0.03	0.11
		CO	0.06	0.23
SG21-1-1	High-Pressure Flare (5)	VOC	<0.01	<0.01
		SO_2	<0.01	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		H_2S	<0.01	<0.01
		NO_x	0.07	0.31
		CO	0.14	0.61
SG35-1-2	South Residue Tank Heater 0.03	VOC		0.01
		SO_2	<0.01	<0.01
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02
SG35-1-3	South Residue Tank Heater 0.03	VOC		0.01
		SO_2	<0.01	<0.01
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02
SG35-1-4	South Residue Tank Heater 0.03	VOC		0.01
		SO_2	<0.01	<0.01
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02
SG35-2-2	North Residue Tank Heater 0.03	VOC		0.01
		SO_2	<0.01	<0.01
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02
SG35-2-3	North Residue Tank Heater 0.03	VOC		0.01
		SO_2	<0.01	<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02
SG35-2-4	North Residue Tank Heater 0.03	VOC		0.01
		SO_2	<0.01	<0.01
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
SG35-2-5	North Residue Tank Heater	VOC	0.01	0.03
		SO_2	<0.01	<0.01
		CO	0.02	0.08
		NO_x	0.12	0.52
		PM_{10}	<0.01	0.02
SG5-1-1	Wastewater Hold Tank Conservation Vent	H_2S	0.02	0.10
		CO	0.02	0.10
		VOC	0.11	0.50
		NH_3	0.27	1.20
SG5-1-17	Gray Water Conservation Vent	VOC	0.11	0.50
		NH_3	0.27	1.20
		H_2S	0.02	0.10
		CO	0.02	0.10
SG5-1-14	Carbon Water Conservation Vent	VOC	0.11	0.50
		NH_3	0.27	1.20
		H_2S	0.02	0.10
		CO	0.02	0.10
SG13-25-1	De-Inventory Tank	VOC	1.25	0.56
SG35-1-1	South Residue Tank	VOC	<0.01	0.01
SG36-2-1	North Residue Tank	VOC	<0.01	0.01
SG38-3-1	Cutterstock Day Tank	VOC	0.01	0.01
SG38-6-1	Cutterstock Storage Tank	VOC	<0.01	<0.01
SG40-1-1	Naphtha Storage Tank	VOC	2.13	3.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1) *	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
SG930D	Diesel Storage Tank	VOC	0.13	<0.01
SG930U	Gasoline Storage Tank	VOC	52.45	0.61

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1) *	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
PW310-50-1	Emergency Firewater Pump	VOC	2.00	0.88
		SO_2	1.60	0.72
		CO	5.30	2.34
		NO_x	24.70	10.86
		PM_{10}	1.80	0.77
PW310-50-3	Emergency Firewater Pump	VOC	0.60	0.25
		SO_2	0.50	0.20
		CO	1.50	0.66
		NO_x	7.00	3.06
		PM_{10}	0.50	
0.22PW453-50-0	Emergency Firewater Pump	VOC	0.10	0.05
		SO_2	0.10	0.04
		CO	0.30	0.14
		NO_x	1.50	0.65
		PM_{10}	0.10	0.05

(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
NO_x - total oxides of nitrogen
NH_3 - ammonia
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
PM - particulate matter
PM_{10} - particulate matter, 10 microns or less
CO - carbon monoxide
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) These flares are used to control emissions during start-up and upset conditions. Allowable emissions represent pilot gas combustion.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

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

_____Hrs/day _____Days/week _____Weeks/year or 8,760 Hrs/year

Dated_____