EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 21878

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. **(11/07)**

		AIR CONTAMINANTS DATA		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY **
Industrial Gas Production Plant				
PSA-FUG	Pressure Swing Adsorption Unit Fugitives (4)	CO	0.95	4.20
A	Fired Gas Preheater A	NO_x	1.92	8.40
		PM	0.48	2.10
		SO_2	0.81	3.60
		CO	1.15	5.10
		VOC	0.09	0.40
		Ammonia	0.01	0.03
		Cyanide	0.01	0.01
B	Fired Gas Preheater B	NO_x	1.92	8.40
		PM	0.48	2.10
		SO_2	0.81	3.60
		CO	1.15	5.10
		VOC	0.09	0.40
		Ammonia	0.01	0.03
		Cyanide	0.01	0.01
D	Warm Flare	NO_x	32.40	3.23
		CO	1047.80	69.25
		SO_2	1.10	0.50
E	Cold Flare (Pilot light emissions) (Maintenance use only)	NO_x	0.03	0.13
		CO	0.30	1.10

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY **
F	Plant Fugitives (4)	CO	14.47	62.85
		VOC	0.35	1.51
		PM	13.28	1.43
		NO_x	1.26	5.52
		SO_2	0.18	0.79
		Argon	0.75	3.25
		$FE(CO)_5$	0.01	0.01
G	Liquid Oxygen Vaporizer	NO_x (5)	2.04	8.40
		NO_x	1.21	5.30
		PM	0.24	1.10
		SO_2	0.23	1.00
		CO	0.55	2.40
		VOC	0.05	0.20
H	Wastewater Equalization Tank	VOC	0.01	0.01
		Cyanide	0.01	0.01
		Ammonia	0.02	0.09
		CO	0.14	0.60
I	Temperature Swing Adsorption Driers	CO	0.29	1.30
		$Fe(CO)_5$	0.06	0.01
J	MEA Storage Tank (3)	VOC	0.02	0.07
K	HYCO-3 Cooling Tower	PM	2.39	10.45
L	ASU-GOX Cooling Water Tower	PM	2.79	12.20
M	ASU Cooling Water Tower	PM	7.62	33.37
N1, N2	2 HYCO Deaerator Vents	MEA	0.03	0.13
O	Vacuum Pump	CO	5.11	0.94
P1, P2, P3 P4, P5, and P6	6 Emergency Generators	NO_x	153.50	3.99
		CO	34.61	0.90
		SO_2	22.70	0.59

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR CONTAMINANTS DATA Emission Rates lb/hr	TPY **
		PM	5.77	0.15
		VOC	5.77	0.15
Peaking Power Plant				
GT-1	Gas Turbine No. 1 (6)	NO_x	32.20	
		CO	41.80	
		VOC	2.40	
		PM_{10}	12.75	
		SO_2	4.29	
GT-2	Gas Turbine No. 2 (6)	NO_x	32.20	
		CO	41.80	
		VOC	2.40	
		PM_{10}	12.75	
		SO_2	4.29	
GT-3	Gas Turbine No. 3 (6)	NO_x	32.20	
		CO	41.80	
		VOC	2.40	
		PM_{10}	12.75	
		SO_2	4.29	
GT-4	Gas Turbine No. 4 (6)	NO_x	32.20	
		CO	41.80	
		VOC	2.40	
		PM_{10}	12.75	
		SO_2	4.29	
GT 1, 2, 3, and 4	Gas Turbines 1-4 (7)	NO_x		70.40
		CO		50.12
		VOC		2.92
		PM_{10}		27.44
		SO_2		8.56

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AIR CONTAMINANTS DATA

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

(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 Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide
PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
Fe(CO)5 - iron pentacarbonyl
MEA - monoethanolamine
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate. Fugitive emissions consist of Pressure Swing Adsorption Unit Fugitives, Abrasive Blast Cabinets (3), Liquid Nitrogen Vaporizers, Sandblasting Operation, Back-Up CO Tube Bank, 1:1 Syngas Manufacturing Modifications, CO Transfill Station, CO Pipeline Expansion, CO Product Compressor Addition, CO Pipeline Purification Skid, and Metal Dusting Test Skid.
(5) Firing propane (only used during upset or routine maintenance periods).
(6) Hourly rates are based upon maximum firing case at peak load, approximately 104 percent of base load, except for VOC and CO which are based on turndown case or 75 percent load.
(7) Annual emissions are based on the sum of emissions for GT 1-4 at a firing rate of 2,563,000 (MMBtu) per year higher heating value.

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated November 28, 2007