EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Flexible Permit Number 18897

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**
VOC SOURCES:				
Flare 112 (6), Boilers, Furnaces, Heaters, Compressors, Incinerator, Thermal Oxidizer, FCCU/WGS, Fire Water Pump, Thermal Combustors, Cooling Towers (4), Fugitive Emissions (4), Loading Racks, Fixed Roof Tanks, Floating Roof Tanks, and Carbon Canister Systems				
	EMISSIONS CAP: through 01/01/2009	VOC	698	1118
	EMISSIONS CAP: through 01/01/2011	VOC	494	930
	EMISSIONS CAP: through 04/04/2013	VOC	488	930
	EMISSIONS CAP: after 04/04/2013	VOC	403	930
NO_x SOURCES:				
Flare 112 (6), Boilers, Furnaces, Heaters, Compressors, Incinerator, Thermal Oxidizer, FCCU/WGS, Fire Water Pump, and Thermal Combustors				
	EMISSIONS CAP: through 01/01/2009	NO_x	609	1374
	EMISSIONS CAP: through 01/01/2011	NO_x	377	937
	EMISSIONS CAP: through 04/04/2013	NO_x	325	853
	EMISSIONS CAP: after 04/04/2013	NO_x	205	535

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
CO SOURCES:				
Flare 112 (6), Boilers, Furnaces, Heaters, Compressors, Incinerator, Thermal Oxidizer, FCCU/WGS, Fire Water Pump, Thermal Combustors, and Absorber				
EMISSIONS CAP: through 01/01/2009		CO	270	630
EMISSIONS CAP: through 01/01/2011		CO	203	556
EMISSIONS CAP: through 04/04/2013		CO	187	526
EMISSIONS CAP: after 04/04/2013		CO	171	479
PM SOURCES:				
Boilers, Furnaces, Heaters, Compressors, Incinerator, Thermal Oxidizer, FCCU/WGS, Fire Water Pump, Thermal Combustors, and Solid Waste Loading				
EMISSIONS CAP: through 01/01/2009		PM	54	105
EMISSIONS CAP: through 01/01/2011		PM	53	99
EMISSIONS CAP: through 04/04/2013		PM	53	99
EMISSIONS CAP: after 04/04/2013		PM	53	99

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
SO_2 SOURCES:				
Flare 112 (6), Boilers, Furnaces, Heaters, Compressors, Incinerator, Thermal Oxidizer, FCCU/WGS, Fire Water Pump, and Thermal Combustors				
EMISSIONS CAP: through 01/01/2009		SO_2	230	525
EMISSIONS CAP: through 01/01/2011		SO_2	157	375
EMISSIONS CAP: through 04/04/2013		SO_2	157	375
EMISSIONS CAP: after 04/04/2013		SO_2	157	375
H_2S SOURCES:				
Flare 112 (6), Boilers, Furnaces, Heaters, Absorber, Incinerator, Thermal Oxidizer, Thermal Combustors, Carbon Canister EPN PK-854, Fugitive Emission EPNs F-16N, F-39, F-71-72, F-1/2, F-11, and F-13 (4), and Sulfur Loading and Storage				
EMISSIONS CAP: through 01/01/2009		H_2S	3	6
EMISSIONS CAP: through 01/01/2011		H_2S	2	4
EMISSIONS CAP: through 04/04/2013		H_2S	2	4
EMISSIONS CAP: after 04/04/2013		H_2S	2	4
COS SOURCES:				
Absorber				
EMISSIONS CAP: through 01/01/2009		COS	1	5
EMISSIONS CAP: through 01/01/2011		COS	1	5
EMISSIONS CAP: through 04/04/2013		COS	1	5
EMISSIONS CAP: after 04/04/2013		COS	1	5

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
H_2SO_4 SOURCES:				
FFCU/WGS				
EMISSIONS CAP: through 01/01/2009		H_2SO_4	4	18
EMISSIONS CAP: through 01/01/2011		H_2SO_4	4	18
EMISSIONS CAP: through 04/04/2013		H_2SO_4	4	18
EMISSIONS CAP: after 04/04/2013		H_2SO_4	4	18
NH_3 SOURCES:				
Carbon Canister EPN PK-854				
EMISSIONS CAP: through 01/01/2009		NH_3	0.01	0.06
EMISSIONS CAP: through 01/01/2011		NH_3	0.01	0.06
EMISSIONS CAP: through 04/04/2013		NH_3	0.01	0.06
EMISSIONS CAP: after 04/04/2013		NH_3	0.01	0.06
HCl SOURCES:				
pH Neutralization				
EMISSIONS CAP: through 01/01/2009		HCl	0.77	0.15
EMISSIONS CAP: through 01/01/2011		HCl	0.10	0.02
EMISSIONS CAP: through 04/04/2013		HCl	0.10	0.02
EMISSIONS CAP: after 04/04/2013		HCl	0.10	0.02

Benzene SOURCES:

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**
Fugitive Emissions EPNs LE-FUG, F-16N, F-39, F-41, TNK-FUG, F-1/2, F-3/4, F-8, F-11, F-16S, F-22, and FUG (4), Thermal Oxidizer, Carbon Canister PK-854, Fixed-Roof Tanks, Floating Roof Tanks, and Cooling Towers				
EMISSIONS CAP: through 01/01/2009		Benzene	1.75	5.90
EMISSIONS CAP: through 01/01/2011		Benzene	1.60	5.30
EMISSIONS CAP: through 04/04/2013		Benzene	1.60	5.27
EMISSIONS CAP: after 04/04/2013		Benzene	1.60	5.24
D-2914	Relief Gas Emergency Flare (5)	VOC	0.01	0.06
		NO_x	0.16	0.68
		CO	0.80	3.48
		SO_2	0.01	0.01
R-2911	Rheniformer Emergency Flare (7)	VOC	0.01	0.01
		NO_x	18.24	0.26
		CO	46.35	0.89
		SO_2	0.01	0.01
128	Sour Water Stripper Emergency Flare (5)	VOC	0.01	0.01
		NO_x	0.05	0.21
		CO	0.10	0.43
		SO_2	0.01	0.01
XF7104	Standby SRU Tailgas Incinerator (5)	VOC	0.01	0.04
		NO_x	0.23	0.67

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		Emission Rates * lb/hr	TPY**
		CO	0.08	0.24	
		PM	0.02	0.05	
		SO_2	0.01	0.01	
		H_2S	0.01	0.01	
112	Plant Emergency/AAG/		VOC	0.01	0.01
	Main South Flare (5, 6)		NO_x	0.02	0.07
		CO	0.11	0.49	
		SO_2	0.01	0.01	
XF8301/2	Steam Reformer Heater F-8301		VOC	0.70	2.61
	Steam Reformer Heater F-8302		NO_x	4.52	16.96
		CO	4.52	16.96	
		PM	0.96	3.61	
		SO_2	3.81	1.92	
		H_2S	0.08	0.04	
H2FUG	Hydrogen Plant Fugitives (4)		CO	0.01	0.06
		VOC	0.01	0.06	
		H_2S	0.01	0.01	

(1) Emission point identification - either specific equipment designation or emission point number

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from a plot plan.

(2) Specific point source names. For fugitive sources, use an 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
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 PM greater than 10 microns is emitted.
CO - carbon monoxide
H_2S - hydrogen sulfide
HCl - hydrochloric acid
H_2SO_4 - sulfuric acid
COS - carbonyl sulfide
NH_3 - ammonia

(4) Emission rates are an estimate and enforceable through compliance with the applicable special condition(s) and permit application representations.

(5) Only pilot emissions are authorized for these combustion sources.

(6) EPN 112 will be authorized for use as a process flare through September 2007. After that, only pilot emissions will be authorized for the flare, and the flare will no longer be included in the pollutant caps.

(7) Startup, shutdown, and maintenance emissions associated with the hydrogen unit are authorized.

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

** Compliance with annual emission limits is based on a calendar year basis for the first eight years after this permit was issued, and a rolling 12-month basis thereafter.

24 Hrs/day 7 Days/week 52 Weeks/year or _____ Hrs/year

Dated March 13, 2007