EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 39693 and N63

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
PORT ARTHUR I - H2/COGENERATION FACILITY				
SMR1 STK	Reformer Furnace Stack	CO	21.6	92
		NO_x	71.7	87
		PM_{10}	15.3	63
		SO_2	6.64	28
		VOC	3.30	14
		NH_3	24.9	110
GT6B STK	Gas Turbine Stack (GE Frame 6B)	CO	33.3	13
		NO_x	19.6	7.4
		PM_{10}	6.00	2.3
		SO_2	0.78	0.3
		VOC	1.14	0.4
FLARE1	Flare	CO	0.043	0.2
		NO_x	0.022	0.1
		SO_2	0.002	0.01
		VOC	0.031	0.14
H2 VENT1	Hydrogen Vent	CO	0.32	1.41
PLTFUG1	Fugitives (4)	CO	1.97	8.6
		VOC	0.70	3.1
		NH_3	0.059	0.3
VAPDEGR	Vapor Degreaser	VOC	0.016	0.07
TANK1	500-Gallon Diesel Tank	VOC	<0.001	<0.001

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		PORT ARTHUR II - H2/COGENERATION FACILITY		
SMR2 STK	Reformer Furnace Stack	CO	13.2	3.5
		NO_x (SSM)	91.7**	
			NO_x 9.17	
			NO_x (annual) 24	
			PM_{10} 12.0	52
		SO_2	20.1	20
			VOC 1.33	4.7
		NH_3	9.51	42
GT7EA STK	Gas Turbine Stack	CO	6.53	3.3
		(GE Frame 7EA)	NO_x 17	34.0
		PM_{10}	5.00	2.5
			SO_2 6.65	0.3
		VOC	1.80	0.9
HRSG STK	Reformer Furnace Stack	CO	30.6	50
		NO_x (SSM)	213**	
			NO_x 21.3	
			NO_x (annual) 34	
			PM_{10} 3.10	12
		SO_2	24.2	24
			VOC 3.83	8.6
		NH_3	5.34	23
SMR2 HPSV	SMR2 HP Steam Vent	MeOH	32.0	3.2
			EtOH 4.60	0.5
		NH_3	1.05	0.1
HRSG SV	HRSG Steam Vent	MeOH	1.82	0.04
			NH_3 0.04	0.001

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
125 SV	125 lb Steam Vent	MeOH	17.8	0.4
		EtOH	1.22	0.03
		NH_3	0.19	
	0.0005			
SMR2 DEA VT	SMR2 Deaerator Vent	MeOH	2.53	11
		EtOH	0.25	1.1
		NH_3	0.01	0.05
HRSG DEA VT	HRSG Deaerator Vent	MeOH	0.093	0.4
		NH_3	0.0005	0.002
FLARE2	Flare	CO	1200	31
		NO_x	60	3.1
		SO_2	0.0006	0.003
		VOC 0.07	0.005	
CT	Cooling Tower	MeOH	0.32	1.4
		PM_{10}	1.84	8.0
		NH_3 0.16	0.7	
H2 VT	Hydrogen Vent	CO	36.4	2.1
H2TGBVT	H2 Tail Gas Fuel Header	MeOH	0.02	$6.2\ e^{-6}$
	Isolator Bleed Valve	EtOH	0.004	$9.0\ e^{-7}$
MIX TEE	H2 Plant Mix Tee Startup	MeOH	0.117	0.001
	VP Steam Vent	EtOH	0.017	0.0002
		NH_3	0.026	0.0023
ATM FL	Atmospheric Flash	MeOH	0.33	1.5
		NH_3	0.017	0.08
INT BDN	Process Gas Boiler	MeOH	0.0005	0.7
	Intermittent Blowdown	NH_3	0.0001	$2.0\ e^{-5}$
PLT2 FUG	Plant 2 Fugitives	CO	2.00	8.7
		VOC	1.11	4.9

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	NH_3	0.088	0.4

(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) CO - carbon monoxide
NO_x - total oxides of nitrogen
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.
SO_2 - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NH_3 - ammonia
MeOH - methanol
EtOH - ethanol
(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:

** SSM = Start-up, shutdown, or maintenance emission rate

_____ Hrs/day __ Days/week __ Weeks/year or 8,760 Hrs/year

Date February 28, 2005