EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 5252

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**
102	Clay Treater Decon. Heater HS-102 (3 MMBtu/hr)	NO_x	0.39	1.71
		CO	0.87	0.54
		VOC	0.04	0.16
		SO_2	0.06	0.24
		PM_{10}	0.17	0.72
103	Benzene Recovery Column Reboiler HS-103	NO_x	10.95	47.98
		CO	23.30	1.03
		VOC	0.05	0.20
		SO_2	0.17	0.26
		PM_{10}	0.39	1.70
104	EB Recovery Column Reboiler HS-104	NO_x	7.22	25.89
		CO	40.84	34.51
		VOC	0.72	3.15
		SO_2	0.28	0.47
		PM_{10}	0.63	2.75
201/219	Superheaters HS-201and 219	NO_x	42.01	166.31
		CO	84.08	48.57
		VOC	1.28	5.62
		SO_2	1.03	4.51
		PM_{10}	0.06	0.25
213	Tank MS-213	VOC	0.01	0.01
220	Superheater HS-220 (170 MMBtu/hr)	NO_x	2.16	9.47
		CO	6.11	26.78
		VOC	0.54	2.34
		SO_2	0.44	1.92

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		Emission Rates * lb/hr	Emission Rates * TPY**
		PM_{10}	0.58	2.56	
		NH_3	1.01	4.44	
301-A	Boiler HB-301-A		NO_x	34.76	143.00
			CO	59.09	4.60
			VOC	0.22	0.91
		SO_2	0.62	1.16	
			PM_{10}	0.74	3.04
301-B	Boiler HB-301-B		NO_x	40.20	169.53
			CO	59.09	4.60
			VOC	1.22	5.18
		SO_2	0.69	1.16	
			PM_{10}	0.38	1.56
301-S	Boiler HB-301-S		NO_x	53.14	205.00
			CO	61.46	4.60
			VOC	1.26	4.86
		SO_2	0.58	1.16	
			PM_{10}	0.45	1.75
302	Tank MT-302		VOC	0.01	0.01
307	Tank MT-307		VOC	0.01	0.01
308	Tank MT-308		VOC	0.01	0.01
331	Wastewater Clarifier GV-331		VOC	0.01	0.01
601	TDA Reactor Feed Heater HS-601		NO_x	1.30	5.68
			CO	3.60	0.04
			VOC	0.02	0.09
			SO_2	0.02	0.03
			PM_{10}	0.19	0.83
812	Stormwater Pump		NO_x	0.74	2.23
			CO	0.16	0.48
			VOC	0.06	0.18
			SO_2	0.05	0.15
			PM_{10}	0.05	0.16

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
1301	Boiler HB-1301-P	NO_x	17.83	66.10
		CO	54.05	47.22
		VOC	1.39	5.11
		SO_2	0.25	0.52
		PM_{10}	0.51	1.88
CT-1	Cooling Tower-1	VOC (4)	2.52	6.03
		PM_{10}	1.05	4.62
CT-2	Cooling Tower-2	PM_{10}	0.34	1.48
CTOTANK and CTOVENT	Catalytic Thermal Oxidizers	NO_x	0.81	1.48
		CO	6.95	12.70
		VOC	16.40	2.20
		SO_2	0.01	0.01
		PM_{10}	0.09	0.17
Diesel Tanks	Diesel Tanks	VOC	0.11	0.03
FL	Flare	NO_x	0.24	1.06
		CO	1.75	7.68
		VOC	0.60	2.63
		SO_2	0.01	0.01
FUG-BZ	Benzene Fugitives (4)	VOC	1.17	5.14
FUG-HRVOC	Ethylene Fugitives (4)	VOC (5)	0.22	0.95
		Ethylene	0.21	0.91
FUG-NH3	Ammonia Fugitives (4)	NH_3	0.03	0.13
FUG-VOC	VOC Fugitives (4)	VOC	2.10	9.19
GY308	GY308 Condensate Deaerator	VOC	0.70	0.33
GY-347	Precoat	PM_{10}	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
LR-1	Loading Rack	VOC	4.32	0.01
MAINTENANCE, START-UP, AND SHUTDOWN EMISSIONS				
115	Emergency Generator	NO_x	12.09	0.67
		CO	2.61	0.15
		VOC	0.96	0.06
		SO_2	0.80	0.04
		PM_{10}	0.86	0.06
220	Superheater HS-220 Start-up and Shutdown	NO_x	10.20	(6)
		CO	42.79	(6)
		VOC	0.54	(6)
		SO_2	0.44	(6)
		PM_{10}	0.58	(6)
802A, 802B, 802S, and 805	Firewater Pumps	NO_x	42.16	3.37
		CO	9.08	0.73
		VOC	3.36	0.27
		SO_2	2.80	0.22
		PM_{10}	3.00	0.24
FL	Flare MSS	NO_x	3.94	0.04
		CO	28.45	0.26
		VOC (5)	83.00	0.73
		Benzene	78.85	0.29
		Ethylene	70.00	0.07
REGEN	EB Regenerator	CO	5.00	0.20
HAZARDOUS AIR POLLUTANTS (HAP) EMISSION LIMITATIONS				
		Individual HAP		9.90

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		All HAPs Combined		24.90

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.
(3) NO_x - total oxides of nitrogen
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
SO_2 - sulfur dioxide
PM_{10} - particulate matter equal to or less than 10 microns in diameter.
NH_3 - ammonia
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) The allowables for VOC includes the allowables for the speciated organic compounds.
(6) Annual maintenance emissions from EPN 220 are included in routine annual allowables for EPN 220.

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

_____ hrs/day _____ days/week _____ weeks/yr or 8,760 hrs/year

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

Dated October 11, 2007