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**
201/219	Superheater HS-201/219	NO_x	42.00	166.31
		SO_2	1.03	1.31
		PM	0.06	0.25
		CO	11.09	48.56
		VOC	1.28	5.62
220	Steam Superheater HS-220	NO_x	1.49	6.51
		SO_2	0.32	0.33
		PM 0.28	1.26	
		CO 4.95	21.71	
		VOC 0.39	1.72	
1301 (5)	Boiler HB-1301-P	NO_x	15.10	66.10
		SO_2	0.23	0.52
		PM	0.43	1.89
		CO	10.78	47.21
		VOC	1.16	5.10
301-A (5)	Boiler HB-301-A	NO_x	32.65	143.00
		SO_2	0.63	1.16
		PM	0.69	3.04
		CO	0.08	0.35
		VOC	0.21	0.91
301-B (5)	Boiler HB-301-B	NO_x	38.70	169.70
		SO_2	0.69	1.16
		PM	0.36	1.56
		CO	0.08	0.36
		VOC	1.18	5.18

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
301-S (5)	Boiler HB-301-S	NO_x	49.90	205.00
		SO_2	0.58	1.16
		PM	0.40	1.75
		CO	1.06	4.60
		VOC	1.11	4.85
1301 (6)	Boiler HB-1301-P	NO_x	17.83	-
		SO_2	0.25	-
		PM	0.51	-
		CO	11.89	-
		VOC	1.38	-
301-A (6)	Boiler HB-301-A	NO_x	34.76	-
		SO_2	0.56	-
		PM	0.74	-
		CO	0.09	-
		VOC	0.22	-
301-B (6)	Boiler HB-301-B	NO_x	40.20	-
		SO_2	0.56	-
		PM	0.38	-
		CO	0.08	-
		VOC	1.22	-
301-S (6)	Boiler HB-301-S	NO_x	53.14	-
		SO_2	0.56	-
		PM	0.45	-
		CO	1.20	-
		VOC	1.26	-
101	Feed Preheater Heater HS-101	NO_x	7.80	34.17
		SO_2	0.43	0.37
		PM	0.39	1.71
		CO	0.17	0.75

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
		VOC	0.10	0.44
102	Clay Treater Decon. Heater HS-102	NO_x	2.86	12.51
		SO_2	0.04	0.08
		PM	0.22	0.95
		CO	2.40	10.51
		VOC	0.15	0.66
103	Benzene Recovery Column Reboiler HS-103	NO_x	17.14	75.07
		SO_2	0.28	0.47
		PM	0.36	1.58
		CO	6.96	30.48
		VOC	0.72	3.15
104	EB Recovery Column Reboiler HS-104	NO_x	10.95	47.95
		SO_2	0.17	0.26
		PM	0.39	1.71
		CO	0.24	1.04
		VOC	0.05	0.22
601	TDA Reactor Feed Heater HS-601	NO_x	1.30	5.68
		SO_2	0.02	0.03
		PM	0.19	0.83
		CO	0.01	0.04
		VOC	0.02	0.09
308	Flux Oil Tank MT-308	VOC	<0.01	<0.01
FUG-BZ	Benzene Fugitives (4)	Styrene	0.07	0.31
		Ethylbenzene	0.11	0.47
		Toluene	0.11	0.47
		Benzene	0.43	1.87
FUG-VOC	VOC Fugitives (4)	Styrene	0.74	3.23
		Ethylbenzene	0.59	2.58
		Toluene	0.59	2.58
		Benzene	0.10	0.43

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
FUG-NH3	Ammonia Fugitives	NH_3	0.03	0.13
LR-1	Loading Rack (4)	Ethylbenzene	4.32	<0.01
CT-1	Cooling Tower-1 (4)	VOC	2.52	6.03
CT-2	Cooling Tower-2 (4)	VOC	<0.01	<0.01
FL	Flare	NO_x	3.74	0.07
		SO_2	<0.01	<0.01
		CO	26.98	0.49
		Total VOC (7)	83.00	0.31
		Benzene	114.00	1.04
GY-347	Precoat	PM	<0.01	<0.01
115	Emergency Generator	NO_x	12.09	0.35
		SO_2	0.80	0.02
		PM	0.86	0.03
		CO	2.61	0.08
		VOC	0.96	0.03
802A, 802B, 802S, 805	Firewater Pumps	NO_x	42.16	3.37
		SO_2	2.80	0.22
		PM	3.00	0.24
		CO	9.08	0.73
		VOC	3.36	0.27
812	Stormwater Pump	NO_x	0.74	2.23
		SO_2	0.05	0.15
		PM	0.05	0.15
		CO	0.16	0.48
		VOC	0.06	0.18
213	Ethylene Glycol Tank Tank MS-213-M	Ethylene Glycol	<0.01	<0.01
CTOTANK	Catalytic Thermal	NO_x	0.32	0.74

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
	Oxidizer	CO	2.75	6.37
		VOC	4.08	0.73
CTOVENT	Catalytic Thermal	NO_x	0.49	0.74
	Oxidizer	CO	4.20	6.33
		VOC	12.32	1.47
REGEN	EB Regenerator	CO	5.00	0.20

(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) 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 particulate matter greater than 10 microns is emitted.
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NH_3 - ammonia
(4) Fugitive emissions are an estimate and should not be considered a maximum allowable emission rate.
(5) Short-term allowable emission rates in effect when all four boilers (EPNs 1301, 301-A, 301-B, and 301-S) are operating simultaneously.
(6) Short-term allowable emission rates in effect when one boiler is out of service and the other three are operating. Annual allowables for each boiler are unchanged.
(7) Total VOC includes benzene.

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

hrs/year 8,760

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

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AIR CONTAMINANTS DATA

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

Dated _____