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, sources, and related activities. 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	
			lbs/hour	TPY (4)
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-201 and 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

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213	Tank MS-213	VOC	0.01	0.01
220	Superheater HS-220 (170 MMBtu/hr)	NO_x	2.16	7.63
		CO	6.11	19.08
		VOC	0.54	2.24
		SO_2	0.44	1.84
		PM_{10}	0.58	2.46
		NH_3	1.01	4.44
301-A	Boiler HB-301-A	NO_x	6.15	26.94
		CO	59.09	36.98
		VOC	0.37	1.61
		SO_2	0.62	1.16
		PM_{10}	1.79	7.82
		$PM_{2.5}$	1.79	7.82
301-B	Boiler HB-301-B	NO_x	6.15	26.94
		CO	59.09	36.98
		VOC	1.22	5.18
		SO_2	0.69	1.16
		PM_{10}	1.16	5.06
		$PM_{2.5}$	1.16	5.06
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

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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
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
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	1.47	6.44
		CO	7.49	32.80
		VOC	0.60	2.63
		SO_2	0.01	0.01
FUG-MSS	Fugitive MSS (5)	VOC	11.95	0.61
		PM_{10}	0.10	<0.01

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		C_6H_6	4.02	0.28
FUG-BZ	Benzene Fugitives (5)	VOC	1.17	5.14
FUG-HRVOC	Ethylene Fugitives (5)	VOC (6)	0.69	3.03
		Ethylene	0.68	2.99
FUG-NH3	Ammonia Fugitives (5)	NH_3	0.03	0.13
FUG-VOC	VOC Fugitives (5)	VOC	2.10	9.19
GY308	GY308 Condensate Deaerator	VOC	0.70	0.33
LR-1	Loading Rack	VOC	4.35	0.17
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	1.84
		CO	42.79	7.70
		VOC	0.54	0.10
		SO_2	0.44	0.08
		PM_{10}	0.58	0.10
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

Emission Sources - Maximum Allowable Emission Rates

FL	Flare MSS	NO_x	8.44	0.21
		CO	60.96	1.50
		PM_{10}	3.00	0.24
		VOC (6)	141.66	2.85
		C_6H_6	63.87	1.22
		Ethylene	70.00	1.51
Hazardous Air Pollutants (HAP) Emission Limitations				
SITEWIDE		Individual HAP		9.90
		All HAPs Combined		24.90

(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
NH_3 - ammonia
C_6H_6 - benzene
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) The allowables for VOC includes the allowables for the speciated organic compounds.

Date: June 12, 2014