Emission Sources - Maximum Allowable Emission Rates

Permit Number 234B

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)
GBB001	Incinerator	CO	0.20	0.87
		Cl_2	2.41	4.74
		HCl	2.96	6.45
		NO_x	0.24	1.04
		PM	0.10	0.40
		PM_{10}	0.10	0.40
		$PM_{2.5}$	0.10	0.40
		SO_2	0.01	0.01
		VOC	0.01	0.04
GBB002	CTL I Vent Scrubber	Cl_2	1.30	1.15
		HCl	4.00	1.17
		PM	0.60	0.85
		PM_{10}	0.60	0.85
		$PM_{2.5}$	0.60	0.85
		VOC	2.20	2.75
MGBB02	CTL I Vent Scrubber MSS Emissions	Cl_2	0.02	0.02
		HCl	0.01	0.02
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01

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		VOC	6.03	0.46
GBB015	CTL I Heat Transfer Fluid (HTF) Heater	CO	0.72	3.17
		NO_x	0.43	1.89
		PM	0.07	0.29
		PM_{10}	0.07	0.29
		$PM_{2.5}$	0.07	0.29
		SO_2	0.02	0.03
		VOC	0.05	0.21
GBB006	West Caustic Tank	NaOH	0.01	0.01
GBB007	East Caustic Tank	NaOH	0.01	0.01
GBB008	CTL I HTF Expansion Vessel	Therminol	0.02	0.09
MGBB08	CTL I HTF Expansion Vessel MSS Emissions	Therminol	1.50	0.01
GBB009	Sulfuric Acid Tank (Fresh)	H_2SO_4	0.02	0.02
GBB010	CTL I Emergency Generator	CO	4.00	0.22
		NO_x	18.50	1.02
		PM	1.30	0.07
		PM_{10}	1.30	0.07
		$PM_{2.5}$	1.30	0.07
		SO_2	1.20	0.07
		VOC	1.50	0.08
GBB011	CTL I Emergency Generator Diesel Fuel Storage Tank	VOC	0.03	0.01
GBB012	Relief Scrubber Surge Tank	NaOH	0.01	0.01
GBB013	Refrigeration System Inerts Vent	Freon	10.00	6.20

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GBB014	CTL I Dust Filter	PM	0.21	0.71
		PM_{10}	0.21	0.71
		$PM_{2.5}$	0.21	0.71
FGBB01	CTL I Fugitives (5)	Cl_2	0.19	0.70
		Freon	1.70	0.75
		HCl	0.10	0.31
		PM	2.90	0.24
		PM_{10}	1.45	0.12
		$PM_{2.5}$	0.73	0.06
		VOC	0.45	1.59
MGBB01	CTL I MSS Fugitives (5)	Cl_2	0.03	0.01
		HCl	0.05	0.01
		PM	0.50	0.01
		PM_{10}	0.25	0.01
		$PM_{2.5}$	0.13	0.01
GBT008	West Package Boiler	CO	4.94	21.64
		NO_x	5.88	25.76
		PM	0.45	1.96
		PM_{10}	0.45	1.96
		$PM_{2.5}$	0.45	1.96
		SO_2	0.04	0.15
		VOC	0.32	1.42
GBT009	CTL II HTF Expansion Vessel	Therminol	0.01	0.06
GBT010	CTL II HTF Drain Tank	Therminol	0.02	0.09
MGBT10	CTL II HTF Drain Tank MSS	Therminol	1.05	0.01

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	Emissions			
GBT011	CTL II IPN Dust Filter	PM	0.09	0.32
		PM_{10}	0.09	0.32
		$PM_{2.5}$	0.09	0.32
FGBT01	CTL II Fugitives (5)	Cl_2	0.12	0.40
		HCl	0.05	0.03
		See Footnote (6)	0.08	0.24
		PM	0.73	0.56
		PM_{10}	0.37	0.28
		$PM_{2.5}$	0.18	0.14
		Syltherm	0.15	0.63
		VOC	0.13	0.55
MGBT01	CTL II MSS Fugitives (5)	Cl_2	0.03	0.01
		HCl	0.05	0.01
		PM	0.05	0.01
		PM_{10}	0.03	0.01
		$PM_{2.5}$	0.02	0.01
GBE001	Distillation HTF Heater	CO	0.90	3.93
		NO_x	0.39	1.72
		PM	0.08	0.33
		PM_{10}	0.08	0.33
		$PM_{2.5}$	0.08	0.33
		SO_2	0.03	0.03
		VOC	0.06	0.26
GBE002	Distillation HTF Expansion Vessel	Syltherm	0.08	0.02
MGBE02	Distillation HTF	Syltherm	0.03	0.01

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	Expansion Vessel MSS Emissions			
GBT002	CTL II Vent Scrubber	Cl_2	1.35	1.18
		HCl	4.15	1.22
		PM	0.60	0.87
		PM_{10}	0.60	0.87
		$PM_{2.5}$	0.60	0.87
		VOC	2.20	2.32
MGBT02	CTL II Vent Scrubber MSS Emissions	Cl_2	0.02	0.02
		HCl	0.01	0.02
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		VOC	6.03	0.45
GBT003	CTL II HTF Heater	CO	0.39	1.71
		NO_x	0.46	2.03
		PM	0.04	0.15
		PM_{10}	0.04	0.15
		$PM_{2.5}$	0.04	0.15
		SO_2	0.01	0.01
		VOC	0.03	0.11
GBT004	East Package Boiler	CO	1.53	6.71
		NO_x	0.67	2.93
		PM	0.14	0.61
		PM_{10}	0.14	0.61
		$PM_{2.5}$	0.14	0.61

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		SO_2	0.05	0.06
		VOC	0.10	0.44
GBT006	Emergency Generator	CO	3.70	0.53
		NO_x	14.10	2.03
		PM	0.40	0.06
		PM_{10}	0.40	0.06
		$PM_{2.5}$	0.40	0.06
		SO_2	4.50	0.65
		VOC	0.40	0.06
GBT007	Emergency Generator Diesel Fuel Storage Tank	VOC	0.01	0.01
GBE003	Product Bag House	See Footnote (6)	1.45	4.53
		PM	0.41	1.09
		PM_{10}	0.41	1.09
		$PM_{2.5}$	0.41	1.09
		VOC	0.08	0.24

(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
Cl_2 - chlorine
HCl - hydrogen chloride
NO_x - total oxides of nitrogen
PM - particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
SO_2 - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NaOH - sodium hydroxide
H_2SO_4 - sulfuric acid
(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) These are non-VOC hydrocarbon emissions.

Emission Sources - Maximum Allowable Emission Rates

Date: January 22, 2014