

# 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. 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 **
GBB001	Incinerator	CO	0.20	0.87
		Cl <sub>2</sub>	9.00	4.74
		HCl	5.38	6.46
		NO <sub>x</sub>	0.24	1.04
		PM	0.10	0.40
		SO <sub>2</sub>	<0.01	0.01
		VOC	0.29	0.04
GBB002	CTL I Environmental Vent Scrubber	Cl <sub>2</sub>	1.30	1.15
		HCl	4.00	1.17
		PM	0.60	0.33
		VOC	8.02	0.89
GBB002 (MSS Only)	CTL I Environmental Vent Scrubber	CL <sub>2</sub>	0.13	<0.01
		HCl	0.01	<0.01
		PM	0.22	<0.01
		VOC	6.29	0.37
GBB005	CTL I Heat Transfer Fluid (HTF) Heater Stack 8 MMBtu/hr	CO	0.66	2.89
		NO <sub>x</sub>	0.78	3.44
		PM	0.06	0.26
		SO <sub>2</sub>	0.01	0.02
		VOC	0.04	0.19
GBB006	West Caustic Tank	NaOH	<0.01	<0.01
GBB007	East Caustic Tank	NaOH	<0.01	<0.01
GBB008	CTL I HTF Expansion Vessel	VOC	3.70	0.01
GBB008 (MSS Only)	CTL I HTF Expansion Vessel	VOC	0.49	<0.01

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			lb/hr	TPY **
GBB009	Sulfuric Acid Tank (Fresh)	H <sub>2</sub> SO <sub>4</sub>	0.02	0.02
GBB010	CTL I Emergency Generator 600-HP Diesel Fired	CO	4.00	0.22
		NO <sub>x</sub>	18.50	1.02
		PM <sub>10</sub>	1.30	0.07
		SO <sub>2</sub>	1.20	0.07
		VOC	1.50	0.08
GBB011	CTL I Emergency Generator Diesel 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
GBB014	CTL I Dust Filter	PM	0.21	0.71
FGBB01	CTL I Fugitives (4)	Cl <sub>2</sub>	0.19	0.70
		Freon	1.70	0.75
		HCl	0.10	0.30
		PM	2.90	0.24
		VOC	0.45	1.59
MGBB01 (MSS Only)	CTL I MSS Fugitives (4)	CL <sub>2</sub>	0.04	0.01
		Freon	0.15	<0.01
		HCl	0.05	0.01
		PM	3.00	0.38
		VOC	0.32	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
GBT002	CTL II Environmental Vent Scrubber	Cl <sub>2</sub>	1.35	1.18
		HCl	4.15	1.22
		PM	0.60	0.40
		VOC	8.00	0.40
GBT002 (MSS Only)	CTL II Environmental Vent Scrubber	Cl <sub>2</sub>	0.05	<0.01
		HCl	0.01	<0.01
		PM	0.22	<0.01
		VOC	6.29	0.16
GBT003	CTL II HTF Heater Stack 4.1 MMBtu/hr	CO	0.34	1.48
		NO <sub>x</sub>	0.40	1.76
		PM	0.03	0.13
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.10
GBT004	East Package Boiler 39.5 MMBtu/hr	CO	3.25	14.25
		NO <sub>x</sub>	3.87	16.96
		PM	0.29	1.29
		SO <sub>2</sub>	0.03	0.10
		VOC	0.21	0.93
GBT006	Emergency Generator 630-HP Diesel Fired	CO	3.70	0.53
		NO <sub>x</sub>	14.10	2.03
		PM	0.40	0.06
		SO <sub>2</sub>	4.50	0.65
		VOC	0.40	0.06
GBT007	Emergency Diesel Fuel Tank	VOC	0.01	<0.01
GBT008	West Package Boiler 60 MMBtu/hr	CO	4.94	21.64
		NO <sub>x</sub>	5.88	25.76
		PM	0.45	1.96
		SO <sub>2</sub>	0.04	0.15
		VOC	0.32	1.42
GBT009	CTL II HTF Expansion Vessel	Dowtherm G	0.04	0.17

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
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GBT010	CTL II HTF Drain Tank	Dowtherm G	0.93	0.01
GBT010 (MSS Only)	CTL II HTF Drain Tank	Marlotherm	0.49	0.01
GBT011	CTL II IPN Dust Filter	PM	0.09	0.32
FGBT01	CTL II Fugitives (4)	Cl <sub>2</sub>	0.12	0.40
		HCl	0.05	0.03
		Non-VOC HC	0.08	0.24
		PM	0.73	0.56
		Syltherm	0.15	0.63
		VOC	0.13	0.55
MGBT01 (MSS Only)	CTL II MSS Fugitives (4)	Cl <sub>2</sub>	0.03	<0.01
		HCl	0.05	<0.01
		PM	2.00	0.15
		VOC	0.32	<0.01
GBE001	Distillation HTF Heater 9.9 MMBtu/hr	CO	0.84	3.68
		NO <sub>x</sub>	0.37	1.61
		PM	0.08	0.33
		SO <sub>2</sub>	0.01	0.03
		VOC	0.06	0.24
GBE002	Distillation HTF Exp. Vessel	Syltherm	0.08	0.02
GBE002 (MSS Only)	Distillation HTF Exp. Vessel	Syltherm	0.03	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
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GBE003	Product Baghouse	Non-VOC HC	1.45	4.53
		PM	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) Cl<sub>2</sub> - chlorine  
 CO - carbon monoxide  
 CTL - chlorothalonil  
 Freon - 1,1,1-chlorodifluoroethane, commercially known as Freon 22  
 HC - hydrocarbons  
 HCl - hydrogen chloride  
 H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
 NaOH - sodium hydroxide  
 NO<sub>x</sub> - total oxides of nitrogen  
 PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
 PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.  
 SO<sub>2</sub> - sulfur dioxide  
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (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:

Hrs/day 24 Days/week 7 Weeks/year 52

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

Dated August 8, 2011