EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 3855B

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**
F-P01	VCM Production Fugitives (4)	EDC	0.26	1.14
		VCM	0.19	0.81
		HCl	0.01	0.02
F-P02	Cracking and Purification Fugitives (4)	VOC	0.01	0.03
		EDC	1.11	4.88
		HCl	0.09	0.40
		VCM	0.43	1.90
		Ethylene	0.65	2.86
		Propylene	0.10	0.45
F-P03	Ethylene Battery Limits (4) (for non-chlorine portions)	EDC	0.01	0.01
		VCM	0.21	0.92
		CL_2	0.05	0.23
		Ethylene	1.03	4.50
F-P05	Wastewater Fugitives (4)	VOC	0.10	0.45
		EDC	0.08	0.35
		NH_3	0.02	0.07
F-P06	EDC Process Fugitives (4)	VOC	0.06	0.27
		EDC	2.03	8.91
		VCM	0.02	0.07
		Ethylene	0.02	0.08
F-P07	Cat Oxygen Process Fugitives (4)	VOC	0.04	0.17
		EDC	0.40	1.74
		HCl	0.08	0.35
		Ethylene	1.07	4.66

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
F-P08	VCM Tank Farm Fugitives (4)	EDC	0.06	0.24
		VCM	0.55	2.39
F-P09	Vent System Fugitives (4)	VOC	0.62	2.73
F-P10	North Purification Fugitives (4)	EDC	0.30	1.31
		HCl	0.05	0.24
		VCM	0.28	1.22
		Propylene	0.24	1.06
F-P11	"C" Oxy-Chlorination Reactor Process Fugitives (4)	EDC	0.31	1.34
		HCl	0.02	0.08
		Ethylene	0.83	3.64
		Propylene	0.01	0.06
F-P13D	"D" Oxy-Chlorination Reactor Process Fugitives (4)	EDC	0.31	1.34
		HCl	0.02	0.08
		Ethylene	0.83	3.64
		Propylene	0.01	0.06
IND103	Cracking Furnace 103 (95 MMBTU/Hour)	$PM_{10}/PM_{2.5}$	0.71	2.45
		SO_2	0.06	0.22
		NO_x	3.33	11.50
		CO	1.71	5.91
		VOC	0.51	1.76
IND104	Cracking Furnace 104 (95 MMBTU/Hour)	$PM_{10}/PM_{2.5}$	0.71	2.45
		SO_2	0.06	0.22
		NO_x	15.11	47.30
		CO	1.24	3.90
		VOC	0.51	1.76
IND105	Cracking Furnace 105 (95 MMBTU/Hour)	$PM_{10}/PM_{2.5}$	0.71	2.45
		SO_2	0.06	0.22
		NO_x	15.11	47.30
		CO	1.24	3.90
		VOC	0.51	1.76

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
IND106	Cracking Furnace 106 (95 MMBTU/Hour)	$PM_{10}/PM_{2.5}$	0.71	2.45
		SO_2	0.06	0.22
		NO_x	15.11	47.30
		CO	1.24	3.90
		VOC	0.51	1.76
IND107	Cracking Furnace 107 (95 MMBTU/Hour)	$PM_{10}/PM_{2.5}$	0.71	2.35
		SO_2	0.06	0.21
		NO_x	5.32	17.50
		CO	1.33	3.90
		VOC	0.51	1.70
IND108	Cracking Furnace 108 (95 MMBTU/Hour)	$PM_{10}/PM_{2.5}$	0.71	2.35
		SO_2	0.06	0.21
		NO_x	5.32	17.50
		CO	1.33	3.90
		VOC	0.51	1.70
IND101A	Incinerator A Scrubber	VOC	2.43	8.77
		NO_x	9.18	26.79
		CO	2.21	9.43
		CO (5)	50.00	
		SO_2	0.10	0.40
		$PM_{10}/PM_{2.5}$	2.40	8.65
		HCl	2.52	8.80
		Cl_2	4.85	17.49
		VCM	0.06	0.22
IND101B	Incinerator B Scrubber	VOC	2.43	8.77
		NO_x	9.18	26.79
		CO	2.21	9.43
		CO (5)	50.00	
		SO_2	0.10	0.40
		$PM_{10}/PM_{2.5}$	2.40	8.65
		HCl	2.52	8.80
		Cl_2	4.85	17.49
		VCM	0.06	0.22

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
CYC-1	Decoking Cyclone	CO	2.04	0.88
		VOC	2.17	0.94
		$PM/PM_{10}/PM_{2.5}$	0.39	0.17
		HCl	0.80	0.35
EEDC-SUMP	East EDC Tank Farm Sump	EDC	0.01	
EDCTF-SUMP	West EDC Tank Farm Sump	EDC	0.01	
IM-SUMP	Intermediate Sump	EDC	0.01	
LTC-SUM	LCT Sump	EDC	0.01	
NO1-SUMP	No. 1 Sump	EDC	0.01	
NO2-SUMP	No. 2 Sump	EDC	0.01	
COXY-SUMP	C-Oxy Sump	EDC	0.01	
HYDRO-SUMP	Hydroblast Pad Sump	EDC	0.01	
SUMP-GROUP	Sump Group	EDC		0.08
HYDRO-WEIR	Hydroblast Pad Weir	EDC	0.61	0.63
		VCM	0.31	0.32
WW-1	Wastewater Treatment	EDC	0.39	1.19
		$CHCl_3$	0.80	2.46
FB-6473	LOPS Tank	VOC	0.08	0.03
GT-1	Gasoline Storage Tank	Gasoline	36.02	2.08
DT-1-FWP	Diesel Storage Tank	Diesel	0.01	
DT-2-FWP	Diesel Storage Tank	Diesel	0.01	

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
DT-3-FWP	Diesel Storage Tank	Diesel	0.01	
DT-4-FWP	Diesel Storage Tank	Diesel	0.01	
DT-5-FWP	Diesel Storage Tank	Diesel	0.01	
DT-6-UTIL	Diesel Storage Tank	Diesel	0.01	
DT-7-EG	Diesel Storage Tank	Diesel	0.01	
DT-GROUP	Diesel Storage Tanks	Diesel		0.07
FA-4605	10 percent Hydrochloric Acid Tank	HCl	0.01	0.01
FA-4609	10 percent Hydrochloric Acid Tank	HCl	0.01	0.01
FA-4610	10 percent Hydrochloric Acid Tank	HCl	0.01	0.01
FB-6470	Solvent Storage Tank	VOC	15.40	0.96
COOLTWR	West Cooling Tower	$PM_{10}/PM_{2.5}$	1.24	5.43
		VOC	0.28	1.23
		HRVOC	0.03	0.13
		Cl_2	0.01	0.01
COOLTWR-2	East Cooling Tower	$PM_{10}/PM_{2.5}$	0.79	3.46
		VOC	0.18	0.79
		HRVOC	0.02	0.09
		Cl_2	0.01	0.01
COOLTWR-3	Biotreater Cooling Tower	$PM_{10}/PM_{2.5}$	0.18	0.53
		VOC	0.01	0.01
		HRVOC	0.01	0.01
		Cl_2	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
COOLTWR-4/5	Final Effluent Cooling Tower	$PM_{10}/PM_{2.5}$	0.07	0.31
		VOC	0.01	0.01
		HRVOC	0.01	0.01
		Cl_2	0.01	0.01
F-P-MSS	Maintenance Start-Up and Shutdown (MSS) of VCM Spheres	VCM	227.27	0.28

(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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code ' 101.1
HCl - hydrogen chloride
VCM - vinyl chloride monomer
Cl_2 - chlorine
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
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
SO_2 - sulfur dioxide
NO_x - total oxides of nitrogen
CO - carbon monoxide
NH_3 - ammonia
HRVOC - highly reactive volatile organic compounds
EDC - ethylene dichloride
$CHCL_3$ - chloroform
(4) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations. Speciated emission rates are not included in VOC emission rates.
(5) Maintenance operations only. Emissions from these EPNs are only from these permitted facilities

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

____Hrs/day ____Days/week ___Weeks/year or _8,760_Hrs/year

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

Date: October 4, 2011