

# 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, 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)
F-P01	VCM Production Fugitives (5)	EDC (VOC)	0.13	0.55
		VCM (VOC)	0.01	0.06
		VOC – Total	0.14	0.61
		HCl	0.03	0.12
F-P02	Cracking and Purification Fugitives (5)	EDC (VOC)	0.97	4.26
		VCM (VOC)	0.09	0.41
		Ethylene (VOC)	0.77	3.39
		Propylene (VOC)	0.36	1.58
		Other VOC	< 0.01	0.03
		VOC – Total	2.20	9.67
		HCl	< 0.01	0.02
F-P03	Ethylene Battery Limits (5) (for non-chlorine portions)	EDC (VOC)	0.01	0.03
		VCM (VOC)	0.07	0.29
		Ethylene (VOC)	0.19	0.83
		Other VOC	< 0.01	0.01
		VOC – Total	0.28	1.16
		Cl <sub>2</sub>	0.06	0.25
F-P05	Wastewater Fugitives (5)	EDC (VOC)	0.04	0.16
		Other VOC	0.04	0.17
		VOC – Total	0.08	0.33
F-P06	EDC Process Fugitives (5)	EDC (VOC)	0.98	4.27
		VCM (VOC)	0.02	0.11
		Ethylene (VOC)	0.01	0.04
		Other VOC	0.01	0.06
		VOC – Total	1.02	4.48
		Cl <sub>2</sub>	< 0.01	0.01

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F-P07	Cat Oxygen Process Fugitives (5)	EDC (VOC)	0.21	0.90
		Ethylene (VOC)	0.46	2.02
		Other VOC	0.07	0.30
		VOC – Total	0.74	3.22
		HCl	0.08	0.34
F-P08	VCM Tank Farm Fugitives (5)	EDC (VOC)	< 0.01	0.02
		VCM (VOC)	0.26	1.15
		VOC – Total	0.27	1.17
F-P09	Vent System Fugitives (5)	VOC	0.55	2.39
F-P10	North Purification Fugitives (5)	EDC (VOC)	0.10	0.46
		VCM (VOC)	0.14	0.62
		Propylene (VOC)	0.12	0.53
		VOC – Total	0.36	1.61
		HCl	0.05	0.24
F-P11	"C" Oxy-Chlorination Reactor Process Fugitives (5)	EDC (VOC)	0.11	0.49
		Ethylene (VOC)	0.24	1.05
		Propylene (VOC)	< 0.01	0.02
		VOC – Total	0.36	1.56
		HCl	0.02	0.08
F-P13D	"D" Oxy-Chlorination Reactor Process Fugitives (5)	EDC (VOC)	0.11	0.49
		Ethylene (VOC)	0.24	1.05
		Propylene (VOC)	< 0.01	0.02
		VOC – Total	0.36	1.56
		HCl	0.02	0.08
IND103	Cracking Furnace 103 (95 MMBtu/hr)	NO <sub>x</sub>	3.33	11.50
		CO	1.71	5.91
		VOC	0.51	1.76
		PM	0.71	2.45
		PM <sub>10</sub>	0.71	2.45
		PM <sub>2.5</sub>	0.71	2.45
		SO <sub>2</sub>	0.06	0.22

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IND104	Cracking Furnace 104 (95 MMBtu/hr)	NO <sub>x</sub>	15.11	47.30
		CO	1.24	3.90
		VOC	0.51	1.76
		PM	0.71	2.45
		PM <sub>10</sub>	0.71	2.45
		PM <sub>2.5</sub>	0.71	2.45
		SO <sub>2</sub>	0.06	0.22
IND105	Cracking Furnace 105 (95 MMBtu/hr)	NO <sub>x</sub>	15.11	47.30
		CO	1.24	3.90
		VOC	0.51	1.76
		PM	0.71	2.45
		PM <sub>10</sub>	0.71	2.45
		PM <sub>2.5</sub>	0.71	2.45
		SO <sub>2</sub>	0.06	0.22
IND106	Cracking Furnace 106 (95 MMBtu/hr)	NO <sub>x</sub>	15.11	47.30
		CO	1.24	3.90
		VOC	0.51	1.76
		PM	0.71	2.45
		PM <sub>10</sub>	0.71	2.45
		PM <sub>2.5</sub>	0.71	2.45
		SO <sub>2</sub>	0.06	0.22
IND107	Cracking Furnace 107 (95 MMBtu/hr)	NO <sub>x</sub>	5.32	17.50
		CO	1.33	3.90
		VOC	0.51	1.70
		PM	0.71	2.35
		PM <sub>10</sub>	0.71	2.35
		PM <sub>2.5</sub>	0.71	2.35
		SO <sub>2</sub>	0.06	0.21
IND108	Cracking Furnace 108 (95 MMBtu/hr)	NO <sub>x</sub>	5.32	17.50
		CO	1.33	3.90
		VOC	0.51	1.70
		PM	0.71	2.35
		PM <sub>10</sub>	0.71	2.35
		PM <sub>2.5</sub>	0.71	2.35
		SO <sub>2</sub>	0.06	0.21
IND101A	Incinerator A Scrubber	NO <sub>x</sub>	9.00	25.00

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		CO	2.20	9.43
		CO (6)	50.00	-
		VCM (VOC)	0.06	0.22
		VOC – Total	2.40	8.77
		PM	2.40	8.65
		PM <sub>10</sub>	2.40	8.65
		PM <sub>2.5</sub>	2.40	8.65
		SO <sub>2</sub>	0.10	0.40
		HCl	2.52	8.80
		Cl <sub>2</sub>	4.85	17.49
		HBr	0.02	0.09
IND101B	Incinerator B Scrubber	NO <sub>x</sub>	9.00	25.00
		CO	2.20	9.43
		CO (6)	50.00	-
		VCM (VOC)	0.06	0.22
		VOC - Total	2.40	8.77
		PM	2.40	8.65
		PM <sub>10</sub>	2.40	8.65
		PM <sub>2.5</sub>	2.40	8.65
		SO <sub>2</sub>	0.10	0.40
		HCl	2.52	8.80
		Cl <sub>2</sub>	4.85	17.49
		HBr	0.02	0.09
CYC-1	Decoking Cyclone	CO	2.04	0.88
		VOC	2.17	0.94
		PM	0.39	0.17
		PM <sub>10</sub>	0.39	0.17
		PM <sub>2.5</sub>	0.39	0.17
		HCl	0.80	0.35
EEDC-SUMP	East EDC Tank Farm Sump	EDC (VOC)	0.01	-
EDCTF-SUMP	West EDC Tank Farm Sump	EDC (VOC)	0.01	-
IM-SUMP	Intermediate Sump	EDC (VOC)	0.01	-
LTC-SUMP	LCT Sump	EDC (VOC)	0.01	-
NO1-SUMP	No. 1 Sump	EDC (VOC)	0.01	-
NO2-SUMP	No. 2 Sump	EDC (VOC)	0.01	-
COXY-SUMP	C-Oxy Sump	EDC (VOC)	0.01	-

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HYDRO-SUMP	Hydroblast Pad Sump	EDC (VOC)	0.01	-
SUMP-GROUP	Sump Group	VOC – Total	-	0.08
HYDRO-WEIR	Hydroblast Pad Weir	EDC (VOC)	0.60	0.62
		VCM (VOC)	0.30	0.31
		VOC – Total	0.90	0.93
WW-1	Wastewater Treatment	EDC (VOC)	0.39	1.19
		CHCl <sub>3</sub> (VOC)	0.80	2.46
		VOC – Total	1.19	3.65
FB-6473	LOPS Tank	VOC	0.15	0.01
GT-1	Gasoline Storage Tank	VOC	34.69	0.83
DT-1-FWP	Diesel Storage Tank	Diesel (VOC)	0.02	-
DT-2-FWP	Diesel Storage Tank	Diesel (VOC)	0.02	-
DT-3-FWP	Diesel Storage Tank	Diesel (VOC)	0.02	-
DT-4-FWP	Diesel Storage Tank	Diesel (VOC)	0.02	-
DT-5-FWP	Diesel Storage Tank	Diesel (VOC)	0.02	-
DT-6-UTIL	Diesel Storage Tank	Diesel (VOC)	0.23	-
DT-7-EG	Diesel Storage Tank	Diesel (VOC)	0.03	-
DT-Group	Diesel Storage Tanks	VOC – Total	-	0.01
FA-4605	10 percent Hydrochloric Acid Tank	HCl	0.01	0.01
FA-4609	10 percent Hydrochloric Acid Tank	HCl	0.01	0.01
FB-6470	Solvent Storage Tank	VOC	0.32	0.01
FA-3204	Ethylene Glycol Storage Tank	VOC	0.01	0.01
COOLTWR	West Cooling Tower	HRVOC	0.13	0.49
		VCM (VOC)	2.34	2.57
		VOC – Total	2.34	2.91
		PM	2.63	9.78
		PM <sub>10</sub>	1.84	6.85
		PM <sub>2.5</sub>	1.10	4.11
		Cl <sub>2</sub>	< 0.01	0.01
COOLTWR-2	East Cooling Tower	HRVOC	0.10	0.37
		VCM (VOC)	1.76	1.90
		VOC – Total	1.76	2.18
		PM	0.99	3.67
		PM <sub>10</sub>	0.69	2.57
		PM <sub>2.5</sub>	0.41	1.54

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		Cl <sub>2</sub>	< 0.01	< 0.01
COOLTWR-4/5	Final Effluent Cooling Tower	HRVOC	< 0.01	< 0.01
		VOC – Total	0.01	0.01
		PM	0.07	0.29
		PM <sub>10</sub>	0.05	0.20
		PM <sub>2.5</sub>	0.03	0.12
		Cl <sub>2</sub>	< 0.01	< 0.01
F-P-MSS	MSS of VCM Spheres	VCM (VOC)	227.27	0.28
		VOC – Total	227.27	0.28

- (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
- HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
- EDC (VOC) - ethylene dichloride
- VCM (VOC) - vinyl chloride monomer
- CHCl<sub>3</sub> (VOC) - chloroform
- HCl - hydrogen chloride
- Cl<sub>2</sub> - chlorine
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- HBr - hydrogen bromide
- (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) Maintenance operations only. Emissions from these EPNs are only from these permitted facilities.

Date: April 29, 2022