

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 3855B and PSD-TX-876

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	0.24	1.05
		VCM	0.01	0.03
		HCl	0.01	0.06
		NH ₃	0.02	0.09
F-P02	Cracking and Purification Fugitives (4)	EDC	0.89	3.92
		VCM	1.24	5.44
		EG	0.06	0.25
		VOC	0.12	0.52
		HCl	0.73	3.18
		Cl ₂	0.01	0.07
		NH ₃	0.02	0.08
F-P03	Ethylene Battery Limits Fugitives (4)	EDC	0.01	0.05
		VOC	0.96	4.20
F-P03A	VCM Loading Fugitives (4)	VCM	0.21	0.91
F-P03B	Chlorine Unloading Fugitives (4)	Cl ₂	0.02	0.10
F-P05	Wastewater Area Fugitives (4)	EDC	0.32	1.39
		VOC	0.05	0.25
		NH ₃	0.59	2.57
F-P06	EDC Process Fugitives (4)	EDC	2.34	10.26
		VCM	<0.01	0.01
		EG	0.30	1.30
		VOC	0.19	0.79
		Cl ₂	0.01	0.04
		NH ₃	0.26	1.15

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
F-P07	Oxy-Chlorination Process Fugitives (4)	EDC	1.07	4.68
		VCM	0.05	0.23
		EG	0.08	0.35
		VOC	0.69	3.03
		HCl	0.10	0.42
		NH ₃	0.12	0.52
F-P08	VCM Tank Farm Fugitives (4)	EDC	0.11	0.47
		VCM	0.51	2.25
		VOC	0.08	0.33
		NH ₃	0.07	0.31
F-P09	Furnace and Boiler Area Fugitives (4)	EDC	0.59	2.60
		VCM	0.09	0.38
		HCl	0.16	0.71
F-P10	No. 2 Cracking and Purification Fugitives (4)	EDC	0.43	1.90
		VCM	0.87	3.80
		EG	0.07	0.29
		VOC	0.13	0.56
		HCl	0.10	0.43
F-P11	No. 2 Oxy-Chlorination Process Fugitives (4)	EDC	0.66	2.91
		VCM	0.12	0.51
		EG	0.09	0.41
		VOC	1.38	6.03
		HCl	0.22	0.96
F-P12	No. 3 Cracking and Purification Fugitives (4)	EDC	0.66	2.91
		VCM	0.12	0.51
		EG	0.09	0.41
		VOC	1.38	6.03
		HCl	0.22	0.96
F-P13	No. 3 Oxy-Chlorination Process Fugitives (4)	EDC	2.03	8.89
		VCM	<0.01	0.01

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			lb/hr	TPY
		VOC	0.02	0.09
F-P-13D	"D" Oxy-Chlorination Reactor Process Fugitives (4)	EDC	0.20	0.87
		VOC	0.01	0.04
		HCl	0.08	0.35
F-P14	No. 2 EDC Process Fugitives (4)	EDC	0.39	1.70
F-P15	No. 2 VCM Production Fugitives (4)	EDC	0.05	0.24
IND102A	Boiler A (124 MMBTU/Hour)	PM ₁₀	1.90	8.30
		SO ₂	0.10	0.30
		NO _x	25.90	113.0
		CO	2.10	9.30
		VOC	0.40	1.60
IND102B	Boiler B (124 MMBTU/Hour)	PM ₁₀	1.90	8.30
		SO ₂	0.10	0.30
		NO _x	25.90	113.0
		CO	2.10	9.30
		VOC	0.40	1.60
IND102C	Boiler C (124 MMBTU/Hour)	PM ₁₀	1.90	8.30
		SO ₂	0.10	0.30
		NO _x	25.90	113.0
		CO	2.10	9.30
		VOC	0.40	1.60
IND102D	Boiler D (121 MMBTU/Hour)	PM ₁₀ (5)	1.21	4.24
		SO ₂	0.24	0.85
		NO _x (5)	4.24	14.84

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
		CO (5)	18.15	63.60
		VOC	1.94	6.78
IND102E	Boiler E (121 MMBTU/Hour)	PM ₁₀ (5)	1.21	4.24
		SO ₂	0.24	0.85
		NO _x (5)	4.24	14.84
		CO (5)	18.15	63.60
		VOC	1.94	6.78
IND103	Cracking Furnace 103 (75 MMBTU/Hour)	PM ₁₀	0.90	3.50
		SO ₂	0.08	0.17
		NO _x	11.90	47.30
		CO	1.00	3.90
		VOC	0.20	1.00
IND104	Cracking Furnace 104 (75 MMBTU/Hour)	PM ₁₀	0.90	3.50
		SO ₂	0.08	0.17
		NO _x	11.90	47.30
		CO	1.00	3.90
		VOC	0.20	1.00
IND105	Cracking Furnace 105 (75 MMBTU/Hour)	PM ₁₀	0.90	3.50
		SO ₂	0.08	0.17
		NO _x	11.90	47.30
		CO	1.00	3.90
		VOC	0.20	1.00
IND106	Cracking Furnace 106 (75 MMBTU/Hour)	PM ₁₀	0.90	3.50
		SO ₂	0.08	0.17
		NO _x	11.90	47.30
		CO	1.00	3.90
		VOC	0.20	1.00
IND107	Cracking Furnace 107 (72 MMBTU/Hour)	PM ₁₀	0.99	3.46
		SO ₂	0.04	0.15
		NO _x	2.52	8.83

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
		CO	2.52	8.83
		VOC	0.20	0.71
IND108	Cracking Furnace 108 (72 MMBTU/Hour)	PM ₁₀	0.99	3.46
		SO ₂	0.04	0.15
		NO _x	2.52	8.83
		CO	2.52	8.83
		VOC	0.20	0.71
IND109	Cracking Furnace 109 (72 MMBTU/Hour)	PM ₁₀ (5)	0.99	3.46
		SO ₂	0.04	0.15
		NO _x (5)	2.52	8.83
		CO (5)	2.52	8.83
		VOC	0.20	0.71
IND110	Cracking Furnace 110 (72 MMBTU/Hour)	PM ₁₀ (5)	0.99	3.46
		SO ₂	0.04	0.15
		NO _x (5)	2.52	8.83
		CO (5)	2.52	8.83
		VOC	0.20	0.71
IND111	Cracking Furnace 111 (72 MMBTU/Hour)	PM ₁₀ (5)	0.99	3.46
		SO ₂	0.04	0.15
		NO _x (5)	2.52	8.83
		CO (5)	2.52	8.83
		VOC	0.20	0.71
IND101A	Incinerator A Scrubber	EDC	0.13	0.58
		VCM	0.05	0.22
		C ₂ H ₅ Cl	0.01	0.02
		CHCl ₃	0.02	0.09

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
		Toluene	0.01	0.04
		CFC-113	0.03	0.12
		NO _x	6.12	26.79
		CO	2.21	9.43
		SO ₂	0.10	0.40
		PM ₁₀	2.00	8.80
		HCl	5.21	22.82
		Cl ₂	10.14	44.41
IND101B	Incinerator B Scrubber	EDC	0.13	0.58
		VCM	0.05	0.22
		C ₂ H ₅ Cl	0.01	0.02
		CHCl ₃	0.02	0.09
		Toluene	0.01	0.04
		CFC-113	0.03	0.12
		NO _x	6.12	26.79
		CO	2.21	9.43
		SO ₂	0.10	0.40
		PM ₁₀	2.00	8.80
		HCl	5.21	22.82
		Cl ₂	10.14	44.41
EEDC-SUMP	East EDC Tank Farm Sump	EDC	<0.01	<0.01
EDCTF-SUMP	West EDC Tank Farm Sump	EDC	<0.01	<0.01
IM-SUMP	Intermediate Sump	EDC	<0.01	<0.01
LTC SUMP	LTC Sump	EDC	<0.01	<0.01
NO1-SUMP	No. 1 Sump	EDC	<0.01	<0.01
NO2-SUMP	No. 2 Sump	EDC	<0.01	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR CONTAMINANTS DATA	
			Emission Rates *	
			lb/hr	TPY
COXY-SUMP	C-Oxy Sump	EDC	<0.01	<0.01
EOXY-SUMP	E-Oxy Sump	EDC	<0.01	<0.01
HYDRO-SUMP	Hydroblast Pad Sump	EDC	<0.01	<0.01
HYDRO-WEIR	Hydroblast Pad Weir	EDC	0.01	0.06
		VCM	<0.01	0.03
WW-1	Wastewater Treatment	EDC	0.17	0.42
		CHCl ₃	0.35	0.87
LAB-SUMP	Lab Sump	EDC	0.30	0.66
DEGREASER	Parts Degreaser	VOC	0.08	0.24
		Toluene	<0.01	<0.01
		Xylene	<0.01	<0.01
		EB	<0.01	<0.01
		TCE	<0.01	<0.01
FB-6473	LOPS Tank	VOC	0.08	0.03
GT-1	Gasoline Storage Tank	Gasoline	44.23	1.13
DT-1-FWP	Diesel Storage Tank	Diesel	0.01	<0.01
DT-2-FWP	Diesel Storage Tank	Diesel	0.01	<0.01
DT-3-FWP	Diesel Storage Tank	Diesel	0.01	<0.01
DT-4-FWP	Diesel Storage Tank	Diesel	0.01	<0.01
DT-5-FWP	Diesel Storage Tank	Diesel	0.01	<0.01
DT-6-UTIL	Diesel Storage Tank	Diesel	0.01	<0.01

DT-7-EG	Diesel Storage Tank	Diesel	0.01	<0.01
FA-4605	10 percent Hydrochloric Acid Tank	HCl	0.10	<0.01
FA-4609	10 percent Hydrochloric Acid Tank	HCl	0.10	<0.01
FA-4610	10 percent Hydrochloric Acid Tank	HCl	0.10	<0.01
FA-3204	10 percent Ethylene Glycol Tank	EG	0.10	<0.01
FB-6404	Sodium Hydroxide Tank	NaOH	0.49	0.07
FB-6480	Sodium Hydroxide Tank	NaOH	0.20	0.03
FB-6470	Solvent Storage Tank	VOC	25.74	0.96
COOLTWR	Cooling Tower	PM	<0.01	<0.01
		Cl ₂	0.20	0.88
COOLTWR-2	East Cooling Tower	PM	<0.01	<0.01
		Cl ₂	0.20	0.88
E1-E5	5 Firewater Pump Diesel Engines (250-hp)	For Emergency Use Only		
E6	Emergency Generator Diesel Engine	For Emergency Use Only		
	Oxyhydrochlorination Reactor Quench Tower Absorber Vents	For Emergency, Start-up or Shutdown Use Only		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (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)

EDC	-	ethylene dichloride
VCM	-	vinyl chloride monomer
HCl	-	hydrogen chloride
NH ₃	-	ammonia
EG	-	ethylene glycol
VOC	-	volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1 excluding chloroethane, chloroform, toluene, xylene, TCE, EB, EDC, VCM, and EG
Cl ₂	-	chlorine
PM	-	particulate matter, suspended in the atmosphere, including PM ₁₀ .
PM ₁₀	-	particulate matter less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
SO ₂	-	sulfur dioxide
NO _x	-	total oxides of nitrogen
CO	-	carbon monoxide
C ₂ H ₅ Cl	-	chloroethane (ethyl chloride)
CHCl ₃	-	chloroform
EDC	-	ethylene dichloride
CFC-113	-	1,1,2-trichloro-1,2,2-trifluoroethane
TCE	-	1,1,2,2-tetrachloroethane
EB	-	ethyl benzene
NaOH	-	sodium hydroxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Pollutants are authorized under Permit No. PSD-TX-876.

* 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

Dated_____