

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 19797

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)	<u>Emission Rates *</u>	
			lb/hr	TPY**
A	Main Flare	Acetone	0.36	0.91
		CO	13.78	8.98
		HCl	1.13	0.99
		NO _x	1.61	1.05
		SO ₂	0.01	0.01
		MeCl ₂	0.03	0.02
		VOC	1.41	3.63
C	Acetylene Flare	CO	9.82	5.01
		NO _x	1.15	0.58
		SO ₂	0.01	0.01
		Acetylene	0.73	0.30
		NH ₃	0.01	0.01
H	Scrubber	HCl	0.09	0.03
		VOC	0.04	0.17
P1	TPP Venturi Filter	PM/PM ₁₀	0.01	0.01
P2	Lindlar Catalyst Scrubber	PM/PM ₁₀	0.01	0.01
P4	Crystal Wash Tower Scrubber	PM/PM ₁₀	0.01	0.01
P5	C10 Filter	MeCl ₂	0.01	0.01
		PM/PM ₁₀	0.01	0.01
T-9111	Acetone Tank (5)	Acetone	37.77	0.62
TF1	MeCl Tank Adsorber	MeCl ₂	0.18	0.01

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TF2	Toluene Tank	VOC	5.51	0.01
TF3	Potassium Hydroxide Tank	KOH	0.01	0.01
TF4	HCl Tank Scrubber	HCl	0.64	0.28
TF5	Acetic Acid Tank Scrubber	VOC	0.12	0.02
TF6	Beta Ionone Tank	VOC	0.01	0.01
TF7	Hexane Tank	VOC	18.49	0.03
TF8	Methanol Tank	VOC	8.74	0.27
TF9	Solvent Waste Tank	Acetone	17.38	0.36
		MeCl ₂	3.23	0.07
		VOC	8.53	0.17
TF10	Phosphorous Waste Tank	Acetone	7.35	0.17
		MeCl ₂	18.22	0.42
		VOC	9.70	0.21
TF13	Sodium Hydroxide Tank	NaOH	0.01	0.01
TF15	Sulfuric Acid Tank	H ₂ SO ₄	0.01	0.01
FUG-BETA	Process Fugitives (4)	Acetone	0.27	1.17
		MeCl ₂	0.32	1.41
		NH ₃	0.06	0.27
		VOC	1.75	7.68
WWTP-01	Wastewater Treatment Plant	Acetone	0.03	0.28
		MeCl ₂	0.55	3.12
		VOC	1.80	5.82
B-1	Plant Boiler	CO	1.33	5.84
		CO (MSS)	8.73	0.07

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			lb/hr	TPY**
		NO _x	1.30	5.71
		PM ₁₀	0.23	1.01
		SO ₂	0.02	0.08
		VOC	0.17	0.73
A-MSS	Vessel Degassing and Cleaning to Main Flare	VOC	4.41	0.01
		Acetone	9.13	0.01
		MeCl ₂	0.03	0.01
		HCl	1.13	0.99
		CO	15.09	8.98
		NO _x	1.76	1.05
		SO ₂	0.01	0.01
T-9110-MSS	MeCl ₂ Tank Opening	MeCl ₂	2.60	0.01
T-9104-MSS	Potassium Hydroxide Tank Opening	KOH	0.01	0.01
T-9108-MSS	HCl Tank Opening	HCl	0.62	0.01
T-9103-MSS	Acetic Acid Tank Opening	VOC	0.09	0.01
T-9102-MSS	Methanol Tank Opening	VOC	0.22	0.01
T-9111-MSS	Acetone Tank Opening	Acetone	0.90	0.01
T-9106-MSS	Solvent Waste Tank Opening	VOC	0.52	0.01
		Acetone	0.57	0.01
		MeCl ₂	0.06	0.01
T-9105-MSS	Phosphorous Waste Tank Opening	VOC	0.72	0.01
		Acetone	0.24	0.01
		MeCl ₂	0.32	0.01
T-9101-MSS	Hexane Tank Opening	VOC	1.10	0.01
T-9100-MSS	Beta-Ionone Tank Opening	VOC	0.01	0.01
T-9107-MSS	Toluene Tank Opening	VOC	0.27	0.01

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T-9112-MSS	Sulfuric Acid Tank Opening	H ₂ SO ₄	0.01	0.01
T-9113-MSS	Sodium Hydroxide Tank Opening	NaOH	0.01	0.01
FUG-MSS	Fugitives from Tank Cleaning,	VOC	18.96	1.06
	Vessel Emissions (Flare Maintenance),	MeCl ₂		16.19
	0.21			
	Solvent Rag Container Opening,	NH ₃	0.49	0.03
	Paint, Sample Purges,	Acetone	27.74	0.21
	Hose Disconnects, Vessel Cleaning	HCl	3.25	0.01
		Inorganics	0.01	0.02

- (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
H₂SO₄ - sulfuric acid
HCl - hydrogen chloride
KOH - potassium hydroxide
MeCl₂ - methylene chloride
NaOH - sodium hydroxide
NH₃ - ammonia
NO_x - total oxides of nitrogen
PM - particulate matter
PM₁₀ - particulate matter equal to or less than 10 microns in diameter
SO₂ - 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.
- (5) This acetone storage tank operates under Permit by Rule Registration No. 86761. The authorized emission rates for the storage tank are shown here as information.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- * 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.

2009

Dated September 16,