

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 82045, PSD-TX-1094, N68, and HAP9

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)(5)	<u>Emission Rates *</u>	
			lb/hr	TPY**
U-1	Utility Boiler A (6)	NO _x	2.54	
		CO	8.88	
		VOC	0.63	
		SO ₂	0.15	
		PM ₁₀	1.27	
		Ammonia	0.76	
U-2	Utility Boiler B (6)	NO _x	2.54	
		CO	8.88	
		VOC	0.63	
		SO ₂	0.15	
		PM ₁₀	1.27	
		Ammonia	0.76	
U-3	Utility Boiler C (6)	NO _x	2.40	
		CO	8.38	
		VOC	0.60	
		SO ₂	0.14	
		PM ₁₀	1.20	
U-4	Utility Boiler D (6)	NO _x	1.61	
		CO	5.64	
		VOC	0.40	
		SO ₂	0.10	
		PM ₁₀	0.81	
U-7	Utility Boiler E (6)	NO _x	1.61	
		CO	5.64	
		VOC	0.40	
		SO ₂	0.10	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		PM ₁₀	0.81	
U-CAP	Utility Boilers A, B, C, D, and E (6)	NO _x		21.60
		CO		75.63
		VOC		5.40
		SO ₂		1.30
		PM ₁₀		10.80
		Ammonia		3.31
M-1	Cracking Furnace A	NO _x	0.79	3.46
		CO	2.76	12.09
		VOC	0.49	2.15
		SO ₂	0.05	0.22
		PM ₁₀	0.68	2.98
		Ammonia	0.22	0.97
M-2	Cracking Furnace B	NO _x	0.79	3.46
		CO	2.76	12.09
		VOC	0.49	2.15
		SO ₂	0.05	0.22
		PM ₁₀	0.68	2.98
		Ammonia	0.22	0.97
M-3	Cracking Furnace C	NO _x	0.79	3.46
		CO	2.76	12.09
		VOC	0.49	2.15
		SO ₂	0.05	0.22
		PM ₁₀	0.68	2.98
		Ammonia	0.22	0.97
M-4	Cracking Furnace D	NO _x	0.79	3.46
		CO	2.76	12.09
		VOC	0.49	2.15
		SO ₂	0.05	0.22
		PM ₁₀	0.68	2.98
		Ammonia	0.22	0.97
MSS-D	Cracking Furnace Decoke	NO _x	0.92	0.09
		CO	9.25	0.89

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H-1	HCl Production Furnace	VOC	0.10	0.01
		SO ₂	0.01	0.01
		PM ₁₀	1.62	0.16
		NO _x	0.57	2.47
		CO	3.44	15.06
		VOC	0.72	3.14
		SO ₂	0.01	0.01
		PM ₁₀	1.38	6.03
		Ammonia	0.42	1.83
		Chlorine	0.14	0.60
		HCl	0.41	1.81
		Dioxins/Furans	(7)	
M-5	Gas Thermal Oxidizer A	NO _x	0.89	
		CO	2.72	
		VOC	1.09	
		SO ₂	0.02	
		PM ₁₀	0.46	
		Ammonia	0.33	
		Chlorine	1.38	
		HCl	1.42	
M-6	Gas Thermal Oxidizer B	NO _x	0.89	
		CO	2.72	
		VOC	1.09	
		SO ₂	0.02	
		PM ₁₀	0.46	
		Ammonia	0.33	
		Chlorine	1.38	
		HCl	1.42	
M-CAP	Gas Thermal Oxidizers A and B	NO _x		3.90
		CO		11.91
		VOC		4.77
		SO ₂		0.09
		PM ₁₀		2.01
		Ammonia		1.44
		Chlorine		6.04

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M-7	VCM Cooling Tower	HCl		6.21
		VOC	1.59	6.96
		PM ₁₀	0.38	1.70
		Chlorine	0.32	1.39
U-6	Biological Treatment	VOC	0.30	1.31
M-12	VCM Unit Fugitives	VOC	1.13	4.95
		Chlorine	0.04	0.17
		HCl	0.10	0.46
		Ammonia	0.03	0.13
T-1A	Diesel Fire Pump	NO _x	5.30	0.07
		CO	2.95	0.04
		VOC	1.11	0.01
		SO ₂	0.91	0.01
		PM ₁₀	0.97	0.01
T-1B	Diesel Fire Pump	NO _x	5.30	0.07
		CO	2.95	0.04
		VOC	1.11	0.01
		SO ₂	0.91	0.01
		PM ₁₀	0.97	0.01
T-1C	Diesel Fire Pump	NO _x	5.30	0.07
		CO	2.95	0.04
		VOC	1.11	0.01
		SO ₂	0.91	0.01
		PM ₁₀	0.97	0.01
T-2A	Diesel Fire Pump	NO _x	5.30	0.07
		CO	2.95	0.04
		VOC	1.11	0.01
		SO ₂	0.91	0.01
		PM ₁₀	0.97	0.01
T-2B	Diesel Fire Pump	NO _x	5.30	0.07
		CO	2.95	0.04
		VOC	1.11	0.01
		SO ₂	0.91	0.01
		PM ₁₀	0.97	0.01

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T-2C	Diesel Fire Pump	NO _x	5.30	0.07
		CO	2.95	0.04
		VOC	1.11	0.01
		SO ₂	0.91	0.01
		PM ₁₀	0.97	0.01
T-3A	Diesel CW Pump	NO _x	1.62	0.02
		CO	1.20	0.02
		VOC	0.45	0.01
		SO ₂	0.37	0.01
		PM ₁₀	0.40	0.01
T-3B	Diesel CW Pump	NO _x	1.62	0.02
		CO	1.20	0.02
		VOC	0.45	0.01
		SO ₂	0.37	0.01
		PM ₁₀	0.40	0.01
T-3C	Diesel CW Pump	NO _x	1.62	0.02
		CO	1.20	0.02
		VOC	0.45	0.01
		SO ₂	0.37	0.01
		PM ₁₀	0.40	0.01
T-4	Diesel Generator for C/A Pump	NO _x	20.69	0.27
		CO	10.35	0.13
		VOC	1.33	0.02
		SO ₂	0.75	0.01
		PM ₁₀	1.32	0.02
T-5	Diesel Generator for VCM Pump	NO _x	16.81	0.22
		CO	8.40	0.11
		VOC	1.08	0.01
		SO ₂	0.61	0.01
		PM ₁₀	1.07	0.01
T-6	Diesel Generator for VCM CCR	NO _x	4.83	0.06
		CO	3.23	0.04
		VOC	1.21	0.02
		SO ₂	0.99	0.01

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T-7	Utility Pump Generator	PM ₁₀	1.06	0.01
		NO _x	7.37	0.10
		CO	3.69	0.05
		VOC	0.47	0.01
		SO ₂	0.27	0.01
		PM ₁₀	0.47	0.01
DT	Diesel Fuel Tanks for Diesel Generators	VOC	0.01	0.01
OR	Lube Oil Reservoirs	VOC	0.01	0.01
MSS-TA	Maintenance, Start-up, and Shutdown (MSS) Turnaround	VOC	14.62	0.40
		Chlorine	0.14	0.01
		HCl	0.01	0.01
MSS-R	Routine MSS and Sampling	VOC	0.03	0.01
		PM ₁₀	2.75	0.07
		Chlorine	0.10	0.01
		HCl	0.25	0.02
LOAD/UNLOAD	Loading/Unloading	VOC	0.16	0.04
		Chlorine	0.01	0.01
U-5	35% HCl Tank Absorber	HCl	0.01	0.01
M-13	25% HCl Tank Absorber	HCl	0.01	0.04
C-1	Absorber ACL-702	Chlorine	0.24	1.05
C-2	Absorber ACL-603	Chlorine	0.01	0.01
		HCl	0.01	0.02
C-3	Absorber ACL-612	HCl	0.01	0.01
C-4	C/A Cooling Tower	PM ₁₀	0.17	0.75
		Chlorine	0.09	0.41
		Freon	1.63	7.10
C-5	C/A Unit Fugitives	Chlorine	0.25	1.09
		HCl	0.21	0.91

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M-14	Wastewater Tank	VOC	0.01	0.01
M-15	Equalization Tank	VOC	0.01	0.01
CU/FE	Copper Iron Removal System	VOC	0.01	0.01

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
- (3) VOC- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM₁₀- particulate matter equal to or less than 10 microns in diameter
CO - carbon monoxide
HCl - hydrogen chloride
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) All VOC and NO_x emissions were subject to nonattainment review. All CO emissions were subject to PSD review.
- (6) The facilities were subject to a case by case MACT review.
- (7) Dioxins and Furans shall not exceed 0.3 ng-TEQ/dscm corrected to 7 percent oxygen in the exhaust from the HCl production furnace averaged over a one hour period.

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

_Hrs/day _Days/week __Weeks/year or 8,760Hrs/year

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