Emission Sources - Maximum Allowable Emission Rates

Permit Number 84802

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)
Annual MAERT Limits for all sources in this Permit. Individual source limits are not additive. Notes: 1. SO_2 annual is included in the SO_X annual totals. 2. Refrigerants include all of the refrigerants listed for Emission Point Y002.		VOC		25.72
		NO_x		92.88
		CO		28.33
		PM_{10}		18.24
		SO_x Note 1		5.14
		HAP		13.15
		Ammonia		5.63
		Hydrochloric acid		2.50
		Hydrogen cyanide		0.13
		Hydrogen fluoride		2.00
		Nitric acid		0.06
		Nitrous oxide		5.50
		Refrigerants Note 2		2.70
		Sulfur trioxide		0.80
H018	Dual Chamber Incinerator	VOC	0.10	25.72
		NO_x	1.10	92.88
		CO	0.80	28.33
		PM_{10}	13.40	18.24
		SO_x	0.80	5.14
		HAP	0.10	13.15

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H025	Plastic Shop	VOC	20.00	25.72
		HAP	20.00	13.15
T010	Vehicle Fuels	VOC	69.10	25.72
		HAP	18.60	13.15
Y002	Refrigeration Units	CFC-11	525.00	2.70
		CFC-12	100.00	2.70
		R-22	612.00	2.70
		R-23	100.00	2.70
		R-134A	263.00	2.70
		R-170	100.00	2.70
		R-401A	100.00	2.70
		R-404A	100.00	2.70
		R-407C	100.00	2.70
		R-410A	100.00	2.70
		R-500	100.00	2.70
		R-502	100.00	2.70
		R-503	100.00	2.70
		R-508b	100.00	2.70
A005	Natural Gas Pipeline	VOC	889.00	25.72
Y003 Y004 R022E1 R022E2 R022E3	Load Leveling Engines SSEE* SSEE SSEE SSEE *Stationary Standby Emergency Engines	NO_x	423.20	92.88
		CO	82.60	28.33
		VOC	24.90	25.72
		SO_x	26.20	5.14
		PM_{10}	18.80	18.24
		HAP	7.20	13.15

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I015	HE Formulation Facility North Rotoclone	VOC	12.00	25.72
		PM_{10}	0.15	18.24
		HAP	12.00	13.15
I016	HE Formulation Facility South Rotoclone	VOC	12.00	25.72
		PM_{10}	0.15	18.24
		HAP	12.00	13.15
I014 FUG	The HE Formulation Facility Fugitive	VOC	<0.10	25.72
F022 PS-1	Stack	NO_x	1.70	92.88
		CO	0.64	28.33
		VOC	17.10	25.72
		SO_x	0.10	5.14
		PM_{10}	0.10	18.24
		Ammonia	13.50	5.63
		Hydrochloric acid	0.10	2.50
		Hydrogen cyanide	0.24	0.13
		Nitric acid	1.00	0.06
		Nitrous oxide	7.70	5.50
F022 PS-2	Stack	NO_x	1.70	92.88
		CO	0.64	28.33
		VOC	17.10	25.72
		SO_x	0.10	5.14
		PM_{10}	0.10	18.24
		Ammonia	13.50	5.63
		Hydrochloric acid	0.10	2.50
		Hydrogen cyanide	0.24	0.13

Emission Sources - Maximum Allowable Emission Rates

		Nitric acid	1.00	0.06
		Nitrous oxide	7.70	5.50
F022 PS-3	Stack	NO_x	0.16	92.88
		CO	0.01	28.33
		VOC	11.93	25.72
		SO_x	0.10	5.14
		PM_{10}	0.10	18.24
		Ammonia	0.50	5.63
		Hydrochloric acid	0.10	2.50
		Hydrogen cyanide	<0.01	0.13
		Nitric acid	0.05	0.06
		Nitrous oxide	0.11	5.50
F022 PS-4	Stack	NO_x	0.30	92.88
		CO	0.15	28.33
		VOC	16.83	25.72
		SO_x	0.50	5.14
		PM_{10}	0.10	18.24
		Ammonia	2.00	5.63
		Hydrochloric acid	0.10	2.50
		Hydrogen cyanide	0.06	0.13
		Nitric acid	0.50	0.06
		Nitrous oxide	2.07	5.50
F022 VPC	Vacuum Pump Condensate Tank	VOC	4.10	25.72
F022 Com Fug	Fugitives	VOC	1.00	25.72
F022 Tanks	Tank Nos. 725-0355 736-1685	VOC	6.30	25.72

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	799-4972 799-4973				
Y020	Cooling Towers	PM_{10}	2.40		18.24
			Nat Gas	#2 Oil	
T024B1	25,000 # Boiler	NO_x	3.60	6.00	92.88
		CO	0.60	1.50	28.33
		VOC	0.09	0.08	25.72
		SO_2	0.02	6.00	5.14
		PM_{10}	0.15	0.60	18.24
		Nitrous oxide	0.07	0.08	5.50
		Sulfur trioxide		0.03	0.80
T024B2	25,000 # Boiler	NO_x	3.60	6.00	92.88
		CO	0.60	1.50	28.33
		VOC	0.09	0.08	25.72
		SO_2	0.02	6.00	5.14
		PM_{10}	0.15	0.60	18.24
		Nitrous oxide	0.07	0.08	5.50
		Sulfur trioxide		0.03	0.80
T024B3	50,000 # Boiler	NO_x	7.30	12.00	92.88
		CO	1.20	3.00	28.33
		VOC	0.17	0.15	25.72
		SO_2	0.04	12.00	5.14
		PM_{10}	0.30	1.20	18.24
		Nitrous oxide		0.20	5.50
		Sulfur trioxide		0.06	0.80
T024B4	50,000 # Boiler	NO_x	7.30	12.00	92.88

Emission Sources - Maximum Allowable Emission Rates

		CO	1.20	3.00	28.33
		VOC	0.17	0.15	25.72
		SO_2	0.04	12.00	5.14
		PM_{10}	0.30	1.20	18.24
		Nitrous oxide		0.20	5.50
		Sulfur trioxide		0.06	0.80
T024T1	Diesel Tank	VOC		0.67	25.72
X011, X015, X022 X023, X026, X029 X030, X031A, X031B, E015, E034B	All Firing Sites	NO_x	50.10		92.88
		CO	716.00		28.33
		VOC	131.00		25.72
		SO_x	8.36		5.14
		PM_{10}	97.60		18.24
		HAP	76.80		13.15
		Ammonia	1.00		5.60
		Hydrochloric acid	24.00		2.50
		Hydrogen cyanide	1.00		0.13
		Hydrogen fluoride	23.70		2.00
		Nitrous oxide	1.00		5.50
Name	HW Permit No./Unit				
Y005 Y006 Y007 Y008 Y009 Y010 Y011 Y012 Y013 Y014 Y015	21 / Burn Pan 1 24 / Tray 1 25 / Tray 2 26 / Tray 3 27 / Tray 4 28 / Tray 5 29 / Tray 6 30 / Burn Pan 2 or Tray 7 31 / Tray 8 32 / Tray 9 43 / Flash Chamber	NO_x	223.70		92.88
		CO	2161.00		28.33
		VOC	21.60		25.72
		SO_x	41.50		5.14
		PM_{10}	126.70		18.24
		HAP	366.90		13.15

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		Hydrochloric acid	229.70	2.50
		Hydrogen fluoride	45.16	2.00
T028P1	HWTPF P1	CO	0.50	28.33
		VOC	2.00	25.72
		PM_{10}	0.32	18.24
T028P2	HWTPF P2	VOC	0.10	25.72
B010 B032 T027 W024 W025	Storage Units	VOC	31.20	25.72
		HAP	31.20	13.15

(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
NO_x - total oxides of nitrogen
SO_x - total oxides of sulfur
SO_2 - sulfur dioxide
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM10_{2.5}$, as represented
CO - carbon monoxide
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(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.

Date: October 5, 2018