

Emission Sources - Maximum Allowable Emission Rates

Permit Number 37887

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)
ACIDSCRUB	Acid Scrubbers	VOC	0.01	0.01
		NH ₃	0.62	0.01
		HCL	0.01	0.01
		HF	0.09	---
		HF (7)	0.25	---
		HF (9)	---	0.01
		HNO ₃	0.01	0.01
		H ₃ PO ₄	0.01	0.01
		H ₂ O ₂	0.01	0.01
ANHFSCRUB	Anhydrous HF Area Scrubbers	HF	0.03	--
		HF (8)	0.26	---
		HF (7)	0.36	---
		HF (9)	---	0.03
BOILER	Boiler	CO	0.12	0.52
		NO _x	0.68	2.12
		PM	0.04	0.16
		PM ₁₀	0.04	0.16
		SO ₂	0.07	0.30
		VOC	0.03	0.12
DIESLTK	Diesel Storage Tank	VOC	0.01	0.01
GENERTR	Diesel Generator (6)	CO	2.69	1.16

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		NO _x	2.47	5.36
		PM	0.89	0.38
		PM ₁₀	0.89	0.38
		SO ₂	0.83	0.36
		VOC	1.01	0.43
HFTOTE	HF Tote and Drum Loading	HF	0.01	0.01
AMMTOTE	NH ₄ OH Tote/Drum Loading	NH ₄ OH	0.01	0.01
LAB	Lab Vent	IPA	1.10	0.01
NH3SCRUB	Ammonia	NH ₄ OH	0.62	0.36
		HF	<0.01	0.01
		NH ₃	0.07	0.03
NH3UNLD	NH ₃ Railcar Unloading	NH ₃	0.08	0.01
TOTE	Industrial HF Tote/Drum Loading	HF	0.01	0.01
FUGITIVE	Process Fugitives (5)	VOC	0.41	1.81
		H ₂ SO ₄	0.01	0.02
		HNO ₃	0.01	0.01
		H ₃ PO ₄	0.01	0.01
		H ₂ O ₂	0.01	0.01
		HF	0.13	0.54
		NH ₃	0.15	0.64
		NH ₄ OH	0.01	0.04
		NH ₄ F	0.01	0.01
ETCHTOTE	Etchant Tote/Drum Loading	VOC	0.01	0.01
		HF	0.01	0.01
		HNO ₃	0.01	0.01

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AFBOETOTE	NH4F/BOE Tote/Drum Loading	H ₂ O ₂	0.01	0.01
		H ₃ PO ₄	0.01	0.01
		NH ₃	0.01	0.01
		HF	0.01	0.01
MAINT	Uncontrolled MSS	NH ₃	0.04	0.01
		HF	0.01	0.01
		H ₂ O ₂	0.27	0.14
		SO ₂	0.001	0.01
		PM	0.0004	0.01
		PM ₁₀	0.0004	0.01
		PM _{2.5}	0.0004	0.01
		VOC	0.73	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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NH₃ - ammonia

HCl - hydrogen chloride

HF - hydrogen fluoride

HNO₃ - nitric acid

H₃PO₄ - phosphoric acid

H₂O₂ - hydrogen peroxide

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented

PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

NH₄OH - ammonium hydroxide

IPA - isopropyl alcohol

NH₄F - ammonium fluoride

H₂SO₄ - sulfuric acid

(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) The diesel generator is limited to 860 operating hours per year.

(7) Emissions include planned maintenance, start-up, and shutdown (MSS) activities only.

(8) Emissions include Alternate Operating Scenario (AOS) activities only.

(9) Emissions include routine emissions, MSS, and AOS.

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Date: November 13, 2017