Emission Sources - Maximum Allowable Emission Rates

Permit Number 25956

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	
			lb/hour	TPY (4)
EPN-1 and EPN-	Solvent Exhaust Vents (5)	VOC	46.92	24.41
1A	(Two Rotor Concentrator/ Thermal Oxidizers operating in	ES	8.30	1.51
	parallel)	СО	4.98	21.8
		NO _x	2.01	8.8
		SO ₂	0.051	0.23
		РМ	0.27	1.17
		PM ₁₀	0.27	1.17
		PM _{2.5}	0.27	1.17
EPN-2	Acid Exhaust Vent (6) (Three In-Line Water Scrubbers and One Backup Water Scrubber)	Acids	0.91	3.65
		Bases	0.56	2.46
		Inorganic Fluorides	0.73	3.02
		Halocarbons	3.21	14.07
		VOC	0.04	0.18
EPN-3	Caustic Exhaust Vent (One In-Line Water Scrubber and One Backup Water Scrubber)	Acids	0.18	0.77
		Bases	0.29	0.92
		VOC	0.17	0.57
EPN-4	Boiler Vent (7)	NO _x 7.74 13.4	13.42	
	(Three 21 MMBtu/hr Boilers) (Uncontrolled)	СО	3.07	7.62
		SO ₂	22.64	8.46
		VOC	1.32	3.33
		ES	0.70	3.07
		PM	1.10	2.17
EPN-5	Photoresist Stripping Unit (8) (Uncontrolled)	VOC	1.20	5.25
		ES	1.25	5.49

Project Number: 191000

Emission Sources - Maximum Allowable Emission Rates

EPN-101	Emergency Generator (Uncontrolled)	NO _x	41.45	4.15
		СО	8.95	0.90
		SO ₂	2.76	0.28
		VOC	3.37	0.34
		PM	2.95	0.30
EPN-103	Fire Water Pump (Uncontrolled)	NO _x	10.19	0.25
		СО	2.20	0.06
		SO ₂	0.68	0.02
		VOC	0.83	0.02
		PM	0.73	0.02
EPN-1, 1A, 2, 3, and 5	Various	Individual HAPs		<10.00
		All HAPs		<25.00

- (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) ES (Exempt Solvents) those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound
 - VOC volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - 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
 - 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) Hourly emission rates include maintenance, startup, and shutdown (MSS) / uncontrolled emissions while the rotor concentrator/oxidizer systems are off-line. Annual emission rates reflect 168 hours per year of uncontrolled (MSS) emissions and 8,592 hours per year of controlled emissions. Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Emission rates are a sum of these three scrubbers.
 Emission rate for inorganic fluorides does not include hydrofluoric acid.
 Emission rate for acids includes hydrofluoric acid.
- (7) Hourly emissions are based on usage of No. 2 fuel oil. Annual emissions are based on 8,030 hours of natural gas usage and 730 hours of No. 2 fuel oil usage.
- (8) Emission rates for EPN-5 are based on chlorinated solvent bath emissions only.

Project Number: 191000

Permit	Number	25956
Page 3	i	

Emission Sources - Maximum Allowable Emission Rates

Non-chlorinated solvent bath emissions are routed to EPN-1 or EPN-1A.

Date: June 3, 2013	
--------------------	--

Project Number: 191000