

Emission Sources - Maximum Allowable Emission Rates

Permit Number 92928

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)
H-89	H2 Unit Reformer Furnace	NO _x	5.33	15.58
		CO	27.17	59.50
		VOC	1.92	8.40
		SO ₂	5.41	11.86
		PM ₁₀	2.65	11.61
		PM _{2.5}	2.13	9.35
		HAPS	0.66	2.88
		NH ₃	1.65	7.24
F-HYDROGEN	H2 Unit Fugitives (5)	VOC	0.37	1.47
		CO	2.34	10.26
		SO ₂	0.01	0.01
		NH ₃	0.01	0.05
FL-4	H2 Unit MSS Emissions from Flares (6)	NO _x	20.58	3.59
		CO	104.86	17.73
		VOC	0.16	0.01
		SO ₂	1.70	0.03
		NH ₃	18.25	0.44

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H2-MSS	H2 Unit MSS (7)	CO	15.34	10.99
		VOC	0.72	0.03
		H ₂ S	0.01	0.01
		PM ₁₀	0.09	0.01
		PM _{2.5}	0.01	0.01
		NH ₃	0.08	0.01
F-20	No. 1 Refinery Cooling Tower (8)	VOC	0.01	0.06
		PM ₁₀	0.01	0.03

- (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
- 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
- NH₃ - ammonia
- H₂S - hydrogen sulfide
- (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) Includes only maintenance, startup, and shutdown (MSS) emissions from the activities authorized in the special conditions controlled by the No. 3 Hydrocracking Unit (HCU) Flare authorized in Permit Number 9708.
- (7) Includes only MSS emissions from the activities authorized in the special conditions.
- (8) Includes only emissions resulting from increased cooling water flow due to the Hydrogen Plant at the No. 1 Refinery Cooling Tower currently authorized in Permit Number 9708.

Date: _____