

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 4802 and PSDTX1260

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)
104	Regeneration Unit No. 2 Stack	Cl ₂	0.01	0.05
		CO	5.70	25.00
		H ₂ SO ₄ (8)	7.19	20.99
		HCl	0.16	0.70
		NO _x	37.20	61.95
		PM	4.01	12.47
		PM ₁₀	4.01	12.47
		PM _{2.5}	4.01	12.47
		SO ₂	143.75	377.78
		VOC	0.01	0.01
104	VOCs from Natural Gas Combustion	VOC	0.46	1.10
104	Railcar Depressurizing, Tank Truck Depressurizing, and Tanks 48, 49, 53, 56, and 78	SO ₂	0.46	0.13
		VOC	0.01	0.01
120	Vapor Combustor Standby Operation	CO	1.51	3.33
		NO _x	1.80	3.96
		PM	0.14	0.30
		PM ₁₀	0.14	0.30
		PM _{2.5}	0.14	0.30
		SO ₂	0.01	0.02
		VOC	0.10	0.22

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120	Vapor Combustor (As backup control device, up to 1,314 hours per rolling 12-months)	Cl ₂	0.14	0.09
		CO	0.40	0.27
		HCl	0.06	0.04
		NO _x	0.48	0.32
		PM	0.04	0.02
		PM ₁₀	0.04	0.02
		PM _{2.5}	0.04	0.02
		SO ₂	0.01	0.01
		VOC	22.22	3.41
128	Regenerator No. 2 Preheater (1,000 hours per rolling 12-months)	CO	2.07	1.03
		NO _x	2.46	1.23
		PM	0.19	0.10
		PM ₁₀	0.19	0.10
		PM _{2.5}	0.19	0.10
		SO ₂	0.02	0.01
		VOC	0.14	0.07
170	Vapor Combustor 2 (As backup control device, up to 1,314 hours per rolling 12-months)	CO	5.79	2.14
		NO _x	2.90	1.07
		SO ₂	0.41	0.04
		VOC	1.34	0.17
		HCl	1.96	0.19
		Cl ₂	0.39	0.04
CATSCNR2	Catalyst Screening for Regeneration Unit No. 2 Converter (6)	PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01
MSS-HAZTK1	Hazardous Waste Tanks (F2, and F3) and T554, Planned MSS Purge (6)	VOC	0.02	0.01
MSS-HAZTK2	Hazardous Waste Tanks (B1, B2, H1, and H2) Planned MSS Purge (6)	VOC	0.01	0.01
TKINSPMSS1 Project Numbers: 294582	Tank 78 Planned Inspection Purge (6)	CO	3.04	0.75
		C ₂ H ₄	0.01	0.01
		NO _x	1.12	0.35

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		VOC (7)	0.05	0.06
TKINSPMSS2	Tanks 48, 49, 53, and 56 Planned Inspection Purge (6)	CO	3.04	0.40
		C ₂ H ₄	0.01	0.01
		NO _x	1.12	0.19
		SO ₂	0.08	0.01
		VOC (7)	0.05	0.01
FE2	Process Fugitives (5)	SO ₂	0.05	0.20
FE3	Process Fugitives (5)	SO ₂	0.01	0.03
FE-12	Fugitives from HW Equipment (5)	VOC	0.04	0.19
FE-13	Fugitives from HW Equipment (5)	VOC	0.02	0.10
FE-14	Fugitives from HW Equipment (5)	VOC	0.01	0.01
FUG-SA1	Spent Acid Process Fugitives (5)	H ₂ SO ₄	0.41	1.79
		SO ₂	0.12	0.37
		VOC	0.09	0.35
FUG-SA2	Spent Acid Process Fugitives (5)	H ₂ SO ₄	0.07	0.31
		SO ₂	0.03	0.08
		VOC	0.02	0.07
FUG-SA3	Spent Acid Process Fugitives (5)	H ₂ SO ₄	0.03	0.11
		SO ₂	0.06	0.18
		VOC	0.03	0.08
FUG-SA4	Spent Acid Process Fugitives (5)	H ₂ SO ₄	0.30	1.34
		SO ₂	0.13	0.38
		VOC	0.08	0.30

- (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) C₂H₄ - ethylene
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
H₂SO₄ - sulfuric acid
Cl₂ - chlorine
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

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| PM ₁₀ | - 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 |
| HCl | - hydrogen chloride |

- (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) Planned startup, shutdown and maintenance emissions
- (7) Ethylene emissions are not included in the VOC emission total.
- (8) PSDTX1260 pollutant

Date: June 14, 2019