

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 122353 & PSDTX1426

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)
FURNCAP (6)	Pyrolysis Furnace Block Emission Cap (H-1101 through H-1107)	NO _x	28.17	123.38
		NO _x (MSS) (8)	76.96	
		CO	95.47	461.71
		VOC	5.11	24.68
		SO ₂	1.96	7.00
		SO ₂ (MSS) (8)	1.96	
		PM	6.44	30.84
		PM ₁₀	6.44	30.84
		PM _{2.5}	6.44	30.84
		H ₂ SO ₄	0.11	0.54
		NH ₃	11.61	56.14
H-1101, H-1102, H-1103, H-1104, H-1105, H-1106, and H-1107 (7)	Pyrolysis Furnaces (H-1101 through H-1107)	NO _x	6.04	--
		CO	15.06	--
		VOC	0.80	--
		SO ₂	0.23	--
		PM	1.01	--
		PM ₁₀	1.01	--
		PM _{2.5}	1.01	--
		H ₂ SO ₄	0.02	--
		NH ₃	1.83	--

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HDECOKE1	Decoke Cyclone 1	CO	280.00	76.23
		PM	1.91	0.98
		PM ₁₀	1.91	0.98
		PM _{2.5}	1.91	0.98
HDECOKE2	Decoke Cyclone 2	CO	280.00	76.23
		PM	1.91	0.98
		PM ₁₀	1.91	0.98
		PM _{2.5}	1.91	0.98
XF-4601	Multi-Point Ground Flare - Normal	NO _x	8.29	35.86
		CO	33.03	142.82
		VOC	13.86	59.93
		SO ₂	0.34	1.48
	Multi-Point Ground Flare - MSS	NO _x	919.05	58.41
		CO	3,660.23	232.64
		VOC	2,077.69	98.16
		SO ₂	0.02	0.10
X-3800	Thermal Oxidizer	NO _x	0.69	3.03
		CO	0.44	1.91
		VOC	0.69	0.13
		SO ₂	0.02	0.11
		PM	0.04	0.17
		PM ₁₀	0.04	0.17
		PM _{2.5}	0.04	0.17
X-3401	Cooling Tower	VOC	6.30	27.59
		PM	0.92	4.03
		PM ₁₀	0.71	3.11
		PM _{2.5}	0.01	0.01
SCFUG (5)	Equipment Leak Fugitives	VOC	3.92	17.17
		NH ₃	0.18	0.80

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EMERGEN	Emergency Generator	NO _x	1.46	0.07
		CO	7.61	0.38
		VOC	0.55	0.03
		SO ₂	0.02	0.01
		PM	0.07	0.01
		PM ₁₀	0.07	0.01
		PM _{2.5}	0.07	0.01
SCMSS	Planned MSS Activities	NO _x	0.01	0.01
		CO	0.01	0.01
		VOC	42.18	4.78
		PM	0.09	0.04
		PM ₁₀	0.03	0.01

- (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
 - NH₃ - ammonia
 - 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 EPN FURNCAP is a short-term and annual cap of emissions from all furnaces, EPNs H-1101, H-1102, H-1103, H-1104, H-1105, H-1106 and H-1107.
- (7) These are the short-term emission rates of each furnace, EPNs H-1101, H-1102, H-1103, H-1104, H-1105, H-1106 and H-1107.
- (8) These emission rates apply across all furnaces in the cap when any one furnace is in one of the planned maintenance, startup and shutdown scenarios defined in the Special Conditions.

Date: January 17, 2017