

Emission Sources - Maximum Allowable Emission Rates

Permit Number 140763 and PSDTX1500M1

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)
3U-7A	UT3 No. 1 Gas Turbine	NO _x	9.69	50.74
		NO _x (MSS)	177.18	
		CO	11.79	78.16
		CO (MSS)	434.17	
		VOC	3.37	15.82
		VOC (MSS)	37.22	
		SO ₂	0.93	3.67
		PM	4.03	17.38
		PM ₁₀	4.03	17.38
		PM _{2.5}	4.03	17.38
		NH ₃	17.93	73.08
		NH ₃ (MSS)	50.00	
		H ₂ SO ₄	0.43	1.68
		(NH ₄) ₂ SO ₄	0.58	2.27
3U-7ALOV T	UT3 No. 1 Gas Turbine Lube Oil Vent (5)	VOC	0.01	0.04
		PM	0.01	0.04
		PM ₁₀	0.01	0.04
		PM _{2.5}	0.01	0.04
3U-7ANGVT	UT3 No. 1 Gas Turbine Natural Gas Vent (5)	VOC	0.66	0.01
3U-CL2FUG	UT3 Chlorine Fugitives (5)	Cl ₂	0.01	0.02

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3U-7B	UT3 No. 2 Gas Turbine	NO _x	9.69	50.74
		NO _x (MSS)	177.18	
		CO	11.79	78.16
		CO (MSS)	434.17	
		VOC	3.37	15.82
		VOC (MSS)	37.22	
		SO ₂	0.93	3.67
		PM	4.03	17.38
		PM ₁₀	4.03	17.38
		PM _{2.5}	4.03	17.38
		NH ₃	17.93	73.08
		NH ₃ (MSS)	50.00	
		H ₂ SO ₄	0.43	1.68
		(NH ₄) ₂ SO ₄	0.58	2.27
3U-7BLOVT	UT3 No. 2 Gas Turbine Lube Oil Vent (5)	VOC	0.01	0.04
		PM	0.01	0.04
		PM ₁₀	0.01	0.04
		PM _{2.5}	0.01	0.04
3U-7BNGVT	UT3 No. 2 Gas Turbine Natural Gas Vent (5)	VOC	0.66	0.01
3U-STLOVT	UT3 Steam Turbine Lube Oil Vent (5)	VOC	0.01	0.04
		PM	0.01	0.04
		PM ₁₀	0.01	0.04
		PM _{2.5}	0.01	0.04
3U-NGFUG	UT3 Natural Gas Fugitives (5)	VOC	0.03	0.14
3U-NH3FUG	UT3 Aqueous Ammonia Fugitives (5)	NH ₃	0.01	0.04

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3U-MSS	UT3 ILE Maintenance Fugitives (5)	NO _x	0.01	0.01
		CO	0.01	0.01
		VOC	1.00	0.01
		PM	27.83	0.14
		PM ₁₀	27.83	0.14
		PM _{2.5}	27.83	0.14
		NH ₃	47.96	0.05
3U-W10	UT3 Cooling Tower	PM	0.17	0.73
		PM ₁₀	0.13	0.56
		PM _{2.5}	0.01	0.01
		HOCl	0.01	0.01
3U-W11	UT3 Sulfuric Acid Tank (5)	H ₂ SO ₄	0.01	0.01
1018, 1067, OL3-FLRA, OL3-FLRB, OL3-FLRC, EGF-1, EGF-2, EGF-3, EGF-4	UT3 Contribution Hourly Cap (6)	VOC	15.02	-
		NO _x (Elevated Flare option)	2.00	-
		CO (Elevated Flare option)	7.98	-
		NO _x (EGF option)	2.00	-
		CO (EGF option)	4.00	-
FLARECAP	Elevated and Enclosed Ground Flares Annual Cap (7)	NO _x	-	0.01
		CO	-	0.01
		VOC	-	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
HOCl - hypochlorous acid
H₂SO₄ - sulfuric acid
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
(NH₄)₂SO₄ - ammonium sulfate
Cl₂ - chlorine gas
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
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- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Maximum hourly emission rate for waste gas flaring may occur from any combination of EPNs.
- (7) Emissions in the cap are authorized to be emitted from any combination of the following flare EPNs: 1018, 1067, OL3-FLRA/B/C, EGF-1, EGF-2, EGF-3, and EGF-4.

Date: TBD

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This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized 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 authorized by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates
			TPY (4)
3U-7A	Combined-cycle CT No. 1/HRSG	CO ₂ (5)	548,583.00
		CH ₄ (5)	10.00
		N ₂ O (5)	1.00
		CO ₂ e	549,150.00
3U-7ANGVT	Turbine No. 1 Startup Natural Gas Purges	CO ₂ (5)	1.00
		CH ₄ (5)	1.00
		CO ₂ e	2.00
3U-7B	Combined-cycle CT No. 2/HRSG	CO ₂ (5)	548,583.00
		CH ₄ (5)	10.00
		N ₂ O (5)	1.00
		CO ₂ e	549,150.00
3U-7BNGVT	Turbine No. 2 Startup Natural Gas Purges	CO ₂ (5)	1.00
		CH ₄ (5)	1.00
		CO ₂ e	2.00
3U-NGFUG	Natural Gas Fugitives	CO ₂ (5)	3.00
		CH ₄ (5)	1.00
		CO ₂ e	65.00
3U-MSS	Natural gas purges during small equipment and fugitive component repair, replacement, and maintenance	CO ₂ (5)	1.00
		CH ₄ (5)	1.00
		CO ₂ e	7.00
3U-SF6FUG	SF6 Insulated Equipment	SF ₆	1.00
		CO ₂ e	28.00
GHGFLARECAP	Elevated and Enclosed Ground Flares GHG Annual Cap (6)	CO ₂ (5)	1.00
		CH ₄ (5)	1.00
		N ₂ O (5)	1.00
		CO ₂ e	1.00

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- (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)
 - CO₂ - carbon dioxide
 - N₂O - nitrous oxide
 - CH₄ - methane
 - HFCs - hydrofluorocarbons
 - PFCs - perfluorocarbons
 - SF₆ - sulfur hexafluoride
 - CO₂e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):
CO₂ (1), N₂O (298), CH₄(25), SF₆ (22,800), HFC (various), PFC (various)
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.
- (5) Emission rate is given for informational purposes only and does not constitute enforceable limit.
- (6) Emissions in the cap are authorized to be emitted from any combination of the following flare EPNs: 1018, 1067, OL3-FLRA/B/C, EGF-1, EGF-2, EGF-3, and EGF-4.

Date: _____ TBD