

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 103626, PSDTX1296 and N164

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)
MEOHFUG	Methanol Unit Fugitives (5)	CO	1.68	7.35
		VOC	0.45	1.97
		NH ₃	0.09	0.38
MEOHFLR	MSS Flare	VOC	170.60	5.00
		NO _x	354.54	22.45
		CO	4,131.41	300.13
		SO ₂	0.21	0.07
MEOHFLR	CO2COMP	VOC	1.68	0.04
		NO _x	8.34	0.27
		CO	91.46	2.74
		SO ₂	0.08	0.01
MEOHANALZ	Methanol Unit Analyzer	VOC	0.01	0.01
		CO	0.02	0.07
REFORM	Methanol Reformer	VOC	34.96	26.27
		NO _x	29.76	27.40
		CO	166.22	166.84
		SO ₂	2.28	9.14
		PM	8.87	35.61
		PM ₁₀	8.87	35.61
		PM _{2.5}	8.87	35.61
		NH ₃	5.05	20.29

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MEOHMT	Cooling Tower	VOC	0.83	3.64
		PM	0.83	3.62
		PM ₁₀	0.46	2.02
		PM _{2.5}	0.01	0.01
MEOHMSS	Methanol MSS	VOC	39.94	0.37
MEOHENG	Methanol Engine	VOC	0.90	0.04
		NO _x	0.88	0.04
		CO	0.77	0.04
		PM	0.04	0.01
		PM ₁₀	0.04	0.01
		PM _{2.5}	0.04	0.01
		SO ₂	0.01	0.01
T9801ST or T9801TEMP	Methanol Scrubber or Temporary Methanol Scrubber	VOC	15.50	3.51

- (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
- (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.

Date: October 5, 2023

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX25

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)
REFORM	Methanol Reformer (6)	CO ₂	532,787
		CH ₄	11
		N ₂ O	1.1
		CO ₂ e	533,334
MEOHFLR	Methanol MSS Flare	CO ₂	49,921
		CH ₄	151
		N ₂ O	0.5
		CO ₂ e	53,837
MEOHMSS	Methanol MSS (6) (7)	CH ₄	0.9
		CO ₂ e	19.4
MEOHFUG	Methanol Unit Fugitives (5) (6)	CO ₂	3
		CH ₄	10
		CO ₂ e	213
MEOHENG	Methanol Engine (6)	CO ₂	33.3
		CH ₄	0.01
		N ₂ O	0.01
		CO ₂ e	33.3
MEOHMT	Cooling Tower (6)	CH ₄	12
		CO ₂ e	252

(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
CO₂e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):
CO₂ (1), N₂O (298), CH₄(25), SF₆ (22,800)

(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 an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) Emissions rates reflect Section II Annual Emissions Limits of Permit No. PSD-TX-1296-GHG issued by EPA on December 12, 2013.

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- (7) GHG emissions from MSS activities that cannot be controlled by a flare are represented by EPN MEOHMSS. These emissions are from the venting of equipment and the isolation of pipe sections for the purposes of maintenance, startup, and shutdown operations (see Attachment C MSS Activity Summary of Permit No. 103626 special conditions).

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