

Emission Sources - Maximum Allowable Emission Rates

Permit Number 56508, PSDTX1444M1 and GHGPSDTX191

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)
MVCU1-A	Marine Vapor Combustor Unit 1-A	NO _x	2.71	4.12
		CO	0.68	1.03
		SO ₂	33.13	66.10
		VOC	2.18	3.23
		PM	0.34	0.51
		PM ₁₀	0.34	0.51
		PM _{2.5}	0.34	0.51
		H ₂ S	0.02	0.04
		CO ₂ (7)	--	11,294
		CH ₄ (7)	--	0.45
		N ₂ O (7)	--	0.09
		CO _{2e}	--	11,332

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU1	Marine Vapor Combustion Unit 1	NO _x	8.21	3.28
		CO	4.97	1.99
		SO ₂	91.45	46.27
		VOC	12.02	4.52
		PM	0.93	0.37
		PM ₁₀	0.93	0.37
		PM _{2.5}	0.93	0.37
		H ₂ S	0.10	0.05
		CO ₂ (7)	--	8,175
		CH ₄ (7)	--	0.33
		N ₂ O (7)	--	0.07
		CO _{2e}	--	8,203
MVCU1-FUG	Marine vapor Combustor Unit 1 Fugitives (6)	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU2	Marine Vapor Combustion Unit 2	NO _x	14.93	See Annual Cap
		CO	4.33	
		SO ₂	79.52	
		VOC	5.22	
		PM	0.81	
		PM ₁₀	0.81	
		PM _{2.5}	0.81	
		H ₂ S	0.04	
		CO ₂ (7)	--	
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU2-FUG	Marine Vapor Combustor Unit 2 Fugitives	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU3	Marine Vapor Combustion Unit 3	NO _x	16.35	See Annual Cap
		CO	5.41	
		SO ₂	99.40	
		VOC	6.53	
		PM	1.01	
		PM ₁₀	1.01	
		PM _{2.5}	1.01	
		H ₂ S	0.05	
		CO ₂ (7)	--	
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU3-FUG	Marine Vapor Combustor Unit 3 Fugitives	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06
MVCU4	Marine Vapor Combustion Unit 4	NO _x	11.47	See Annual Cap
		CO	4.33	
		SO ₂	79.52	
		VOC	5.22	
		PM	0.81	
		PM ₁₀	0.81	
		PM _{2.5}	0.81	
		H ₂ S	0.04	
		CO ₂ (7)	--	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU4-FUG	Marine Vapor Combustor Unit 4 Fugitives	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06
MVCU5	Marine Vapor Combustion Unit 5	NO _x	6.49	See Annual Cap
		CO	1.62	
		SO ₂	79.52	
		VOC	5.22	
		PM	0.81	
		PM ₁₀	0.81	
		PM _{2.5}	0.81	
		H ₂ S	0.04	
		CO ₂ (7)	--	
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU5-FUG	Marine Vapor Combustor Unit 5 Fugitives	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU6	Marine Vapor Combustion Unit 6	NO _x	6.49	See Annual Cap
		CO	1.62	
		SO ₂	79.52	
		VOC	5.22	
		PM	0.81	
		PM ₁₀	0.81	
		PM _{2.5}	0.81	
		H ₂ S	0.04	
		CO ₂ (7)	--	
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU6-FUG	Marine Vapor Combustor Unit 6 Fugitives	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU7	Marine Vapor Combustion Unit 7	NO _x	6.49	See Annual Cap
		CO	1.62	
		SO ₂	79.52	
		VOC	5.22	
		PM	0.81	
		PM ₁₀	0.81	
		PM _{2.5}	0.81	
		H ₂ S	0.04	
		CO ₂ (7)	--	
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU7-FUG	Marine Vapor Combustor Unit 7 Fugitives	VOC	0.16	0.69
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU8	Marine Vapor Combustion Unit 8	NO _x	6.49	See Annual Cap
		CO	1.62	
		SO ₂	79.52	
		VOC	5.22	
		PM	0.81	
		PM ₁₀	0.81	
		PM _{2.5}	0.81	
		H ₂ S	0.04	
		CO ₂ (7)	--	
		CH ₄ (7)	--	
		N ₂ O (7)	--	
		CO _{2e}	--	
MVCU8-FUG	Marine Vapor Combustor Unit 8 Fugitives	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
		CH ₄ (7)	--	0.20
		CO _{2e}	--	5.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
COMBUSTCAP	Marine Vapor Combustion Unit 2, 3, 4, 5, 6, 7 and 8 Emissions Cap	NO _x	--	49.94
		CO	--	15.15
		SO ₂	--	524.29
		VOC	--	25.63
		PM	--	4.36
		PM ₁₀	--	4.36
		PM _{2.5}	--	4.36
		H ₂ S	--	0.28
		CO ₂ (7)	--	96,181
		CH ₄ (7)	--	3.87
		N ₂ O (7)	--	0.77
		CO _{2e}	--	96,509
LOADBDA	Barge Dock A Loading Fugitives	VOC	6.22	--
		H ₂ S	<0.01	--
LOADBDB	Barge Dock B Loading Fugitives	VOC	6.22	--
		H ₂ S	<0.01	--
LOADBDC	Barge Dock C Loading Fugitives	VOC	6.22	18.65
		H ₂ S	<0.01	<0.01
LOADBDD	Barge Dock D Loading Fugitives	VOC	6.22	--
		H ₂ S	<0.01	--
LOADBDE	Barge Dock E Loading Fugitives	VOC	6.22	--
		H ₂ S	<0.01	--
LOADSD1	Ship Dock 1 Loading Fugitives	VOC	13.43	--
		H ₂ S	0.04	--

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LOADSD2	Ship Dock 2 Loading Fugitives	VOC	14.92	--
		H ₂ S	0.04	--
LOADSD3	Ship Dock 3 Loading Fugitives	VOC	14.92	7.46
		H ₂ S	<0.01	<0.01
LOADSD4	Ship Dock 4 Loading Fugitives	VOC	14.92	--
		H ₂ S	0.04	--
LOADSD5	Ship Dock 5 Loading Fugitives	VOC	14.92	--
		H ₂ S	0.04	--
LOADSD6	Ship Dock 6 Loading Fugitives	VOC	14.92	--
		H ₂ S	0.04	--
LOADSD7	Ship Dock 7 Loading Fugitives	VOC	14.92	--
		H ₂ S	0.04	--
LOADSD8	Ship Dock 8 Loading Fugitives	VOC	14.92	--
		H ₂ S	0.04	--
LOADCAP	Docks A, D, E, 2, 4, 5, 6, 7, and 8 Loading Emission Cap	VOC	--	18.94
		H ₂ S	--	0.21
LOADCAP2	Docks B and 1 Loading Emission Cap	VOC	--	1.87
		H ₂ S	--	0.01
LBDAFUG	Barge Dock A Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LBDBFUG	Barge Dock B Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LBDCFUG	Barge Dock C Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LBDDFUG	Barge Dock D Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LBDEFUG	Barge Dock E Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD1FUG	Ship Dock 1 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD2FUG	Ship Dock 2 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD3FUG	Ship Dock 3 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD4FUG	Ship Dock 4 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD5FUG	Ship Dock 5 Component Fugitives	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD6FUG	Ship Dock 6 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD7FUG	Ship Dock 7 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<0.01
LSD8FUG	Ship Dock 8 Component Fugitives (5)	VOC	0.21	0.79
		H ₂ S	<0.01	<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

Emission Sources - Maximum Allowable Emission Rates

PM _{2.5}	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
H ₂ S	- hydrogen sulfide
CO ₂	- carbon dioxide
N ₂ O	- nitrous oxide
CH ₄	- methane
CO _{2e}	- carbon dioxide equivalents based on the following Global Warming Potentials (1/2015): CO ₂ (1), N ₂ O (298) and CH ₄ (25).

- (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) EPN MVCU1-FUG includes MVCU1 and MVCU 1-A fugitives.
- (7) Emission rate is given for informational purposes only and does not constitute an enforceable limit.

Date: July 13, 2020