Emission Sources - Maximum Allowable Emission Rates

Permit Number 151476, PSDTX1536, GHGPSDTX179

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

Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MVCU 1	Marine Loading Vapor Combustor 1	VOC	7.60	-
		NO_x	5.02	-
		CO	3.77	-
		PM	1.97	-
		PM_{10}	1.97	-
		$PM_{2.5}$	1.97	-
		SO_2	10.23	-
		H_2S	<0.01	-
		CO_2 (6)	41,247	-
		CH_4 (6)	1.66	-
		N_2O (6)	0.33	-
		CO_2e	41,388	-
MVCU 2	Marine Loading Vapor Combustor 2	VOC	7.60	-
		NO_x	5.02	-
		CO	3.77	-
		PM	1.97	-
		PM_{10}	1.97	-
		$PM_{2.5}$	1.97	-
		SO_2	10.23	-
		H_2S	<0.01	-
		CO_2 (6)	41,247	-
		CH_4 (6)	1.66	-
		N_2O (6)	0.33	-
		CO_2e	41,388	-

Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)

Emission Sources - Maximum Allowable Emission Rates

MVCU 3	Marine Loading Vapor Combustor 3	VOC	7.60	-
		NO_x	5.02	-
		CO	3.77	-
		PM	1.97	-
		PM_{10}	1.97	-
		$PM_{2.5}$	1.97	-
		SO_2	10.23	-
		H_2S	<0.01	-
		CO_2 (6)	41,247	-
		CH_4 (6)	1.66	-
		N_2O (6)	0.33	-
		CO_2e	41,388	-
MVCU 4	Marine Loading Vapor Combustor 4	VOC	7.60	-
		NO_x	5.02	-
		CO	3.77	-
		PM	1.97	-
		PM_{10}	1.97	-
		$PM_{2.5}$	1.97	-
		SO_2	10.23	-
		H_2S	<0.01	-
		CO_2 (6)	41,247	-
		CH_4 (6)	1.66	-
		N_2O (6)	0.33	-
		CO_2e	41,388	-

Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
MLVCU 1 MLVCU 2 MLVCU 3 MLVCU 4	Marine Loading Vapor Combustor – Annual Cap	VOC	-	26.82
		NO_x	-	20.87
		CO	-	15.65
		PM	-	8.19

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	-	8.18
		SO_2	-	35.75
		H_2S	-	0.02
		CO_2 (6)	-	171,485
		CH_4 (6)	-	6.90
		N_2O (6)	-	1.38
		CO_2e	-	172,069
ML_FUG 1 ML_FUG 2	Marine Loading Fugitives Berth1 and Berth2 - CAP	VOC	24.35	26.14
		H_2S	0.02	0.02
FUG	Fugitives (5)	VOC	5.36	23.49
		H_2S	<0.01	0.02
TK-1001	Storage Tank TK-1001	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1002	Storage Tank TK-1002	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1003	Storage Tank TK-1003	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1004	Storage Tank TK-1004	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1005	Storage Tank TK-1005	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1006	Storage Tank TK-1006	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1007	Storage Tank TK-1007	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1008	Storage Tank TK-1008	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-1009	Storage Tank TK-1009	VOC	13.96	4.83
		H_2S	<0.01	<0.01
Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**	
			lbs/hour	**TPY (4)**
TK-2001	Storage Tank TK-2001	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-2002	Storage Tank TK-2002	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-2003	Storage Tank TK-2003	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-2004	Storage Tank TK-2004	VOC	13.96	4.83
		H_2S	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

		H_2S	<0.01	<0.01
TK-2006	Storage Tank TK-2006	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-2007	Storage Tank TK-2007	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-2008	Storage Tank TK-2008	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-3001	Storage Tank TK-3001	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-3002	Storage Tank TK-3002	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-3003	Storage Tank TK-3003	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-3004	Storage Tank TK-3004	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-3005	Storage Tank TK-3005	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-3006	Storage Tank TK-3006	VOC	13.96	4.83
		H_2S	<0.01	<0.01
TK-5001	Surge Relief Storage Tank TK-5001	VOC	13.61	1.00
		H_2S	<0.01	0.01
T-1	Diesel Storage Tank 1	VOC	0.07	<0.01
T-3	Chemical Additive Storage Tank 1	VOC	11.48	0.36
T-4	Chemical Additive Storage Tank 2	VOC	11.48	0.36
Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**	
			lbs/hour	**TPY (4)**
T-5	Chemical Additive Storage Tank 3	VOC	11.48	0.36
T-6	Chemical Additive Storage Tank 4	VOC	11.48	0.36
ADDFUG	Chemical Additives Storage Tank Fugitives (5)	VOC	0.06	0.26
STRL_UNCL	Tank Roof Landing - Uncontrolled	VOC	104.31	4.43
		H_2S	0.26	0.01
MSS_COMB	Combustion Device for MSS Control	VOC	53.43	47.94
		NO_x	6.15	2.15
		CO	8.20	2.87
		PM	0.32	0.11
		PM_{10}	0.32	0.11

Emission Sources - Maximum Allowable Emission Rates

		SO_2	6.53	4.17
		H_2S	0.04	0.03
		CO_2 (6)	6,738	2,360
		CH_4 (6)	0.27	0.09
		N_2O (6)	0.05	0.02
		CO_2e	6,761	2,368
FRTANK_SL	Sludge Frac Tanks – Carbon Canisters Control	VOC	0.07	0.16
		H_2S	0.03	0.06
FRTANK_CR	Routine MSS Crude Frac Tank – Carbon Canisters Control	VOC	0.05	<0.01
		H_2S	0.03	<0.01
FRTANK_WD	Water Draw Frac Tanks – Carbon Canisters Control	VOC	0.05	0.37
		H_2S	0.03	0.19
FRTANK_LVP	Low Vapor Pressure Frac Tank	VOC	1.42	0.24
		H_2S	<0.01	<0.01
VTRUCK_HVP	High Vapor Pressure Vacuum Trucks	VOC	0.11	0.33
		H_2S	0.04	0.12
VTRUCK_LVP	Low Vapor Pressure Vacuum Trucks	VOC	1.55	0.75
		H_2S	<0.01	<0.01

Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MSS	Additional MSS activities	VOC	19.85	6.51
		H_2S	0.01	<0.01
		PM	0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FWP1	Firewater Pump 1	VOC	0.08	<0.01
		NO_x	4.07	0.20
		CO	1.38	0.07
		PM	0.13	<0.01
		PM_{10}	0.13	<0.01
		$PM_{2.5}$	0.13	<0.01
		SO_2	<0.01	<0.01
		CO_2 (6)	2,475	123.76
		CH_4 (6)	0.10	<0.01
		N_2O (6)	0.02	<0.01
		CO_2e	2,483	124.18
EMGEN	Emergency Generator	VOC	0.21	0.01

Emission Sources - Maximum Allowable Emission Rates

		CO	1.03	0.05
		PM	0.06	<0.01
		PM_{10}	0.06	<0.01
		$PM_{2.5}$	0.06	<0.01
		SO_2	<0.01	<0.01
		CO_2 (6)	2,475	123.76
		CH_4 (6)	0.10	<0.01
		N_2O (6)	0.02	<0.01
		CO_2e	2,484	124.18

(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
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
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
CO_2 - carbon dioxide
N_2O - nitrous oxide
CH_4 - methane
CO_2e - carbon dioxide equivalents based on CO_2, N_2O, CH_4
(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) Emission rate is given for informational purposes only and does not constitute enforceable limit.

DATE: April 23, 2021