Emission Sources — Maximum Allowable Emission Rates

Permit Numbers 118270 and PSDTX1398M1

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)
H-1A	Fractionator Heater H-1A	VOC	0.70	2.77
		NO_x	1.29	3.08
		NOx (MSS)	15.66	(see cap)
		CO	4.77	18.98
		CO (MSS)	28.60	(see cap)
		PM	0.58	2.31
		PM_{10}	0.58	2.31
		$PM_{2.5}$	0.58	2.31
		SO_2	3.36	4.95
		NH_3	0.58	2.31
H-1B	Hot Oil Heater H-1B	VOC	0.57	2.27
		NO_x	1.06	2.53
		NOx (MSS)	12.86	(see cap)
		CO	3.91	15.58
		CO (MSS)	39.13	(see cap)
		PM	0.48	1.90
		PM_{10}	0.48	1.90
		$PM_{2.5}$	0.48	1.90
		SO_2	2.76	4.07
		NH_3	0.48	1.89

Emission Sources - Maximum Allowable Emission Rates

H-2A	Fractionator Heater H-2A	VOC	0.70	2.77
		NO_x	1.29	3.08
		NOx (MSS)	15.66	(see cap)
		CO	4.77	18.98
		CO (MSS)	28.60	(see cap)
		PM	0.58	2.31
		PM_{10}	0.58	2.31
		$PM_{2.5}$	0.58	2.31
		SO_2	3.36	4.95
		NH_3	0.58	2.31
H-2B	Hot Oil Heater H-2B	VOC	0.57	2.27
		NO_x	1.06	2.53
		NOx (MSS)	12.86	(see cap)
		CO	3.91	15.58
		CO (MSS)	39.13	(see cap)
		PM	0.48	1.90
		PM_{10}	0.48	1.90
		$PM_{2.5}$	0.48	1.90
		SO_2	2.76	4.07
		NH_3	0.48	1.89
H-1A, H-1B, H-2A, H-2B	Heater MSS Annual Cap	NO_x	--	2.74
		CO	--	6.50

Emission Sources - Maximum Allowable Emission Rates

H-3	Tank Heater 3	VOC	0.09	—
		NO_x	1.57	—
		CO	1.32	—
		PM	0.12	—
		PM_{10}	0.12	—
		$PM_{2.5}$	0.12	—
		SO_2	0.24	—
H-4	Tank Heater 4	VOC	0.09	—
		NO_x	0.58	—
		CO	0.59	—
		PM	0.12	—
		PM_{10}	0.12	—
		$PM_{2.5}$	0.12	—
		SO_2	0.24	—
H-3_H-4_CAP	Tank Heaters 3 & 4 Annual Emission Cap	VOC	—	0.38
		NO_x	—	4.71
		CO	—	4.18
		PM	—	0.53
		PM_{10}	—	0.53
		$PM_{2.5}$	—	0.53
		SO_2	—	1.03
FL-1	Flare	VOC	19.53	11.59
		NO_x	4.42	7.62
		CO	9.89	15.20
		SO_2	1.00	1.41
FUG-1	Fugitives (5)	VOC	15.63	68.44
		H_2S	0.01	0.02
		NH_3	0.04	0.18
LOADFUG	Marine Loading Fugitives	VOC	62.48	49.76

Emission Sources - Maximum Allowable Emission Rates

		H_2S	0.02	0.02
VCU1	Marine Vapor Combustor 1	VOC	15.83	—
		NO_x	11.25	—
		CO	15.00	—
		PM	0.56	—
		PM_{10}	0.56	—
		$PM_{2.5}$	0.56	—
		SO_2	2.59	—
		H_2S	0.01	—
VCU2	Marine Vapor Combustor 2	VOC	15.83	—
		NO_x	11.25	—
		CO	15.00	—
		PM	0.56	—
		PM_{10}	0.56	—
		$PM_{2.5}$	0.56	—
		SO_2	2.59	—
		H_2S	0.01	—
VCU1/VCU2	Marine Vapor Combustors	VOC	—	10.59
		NO_x	—	12.35
		CO	—	16.46
		PM	—	0.61
		PM_{10}	—	0.61
		$PM_{2.5}$	—	0.61
		SO_2	—	2.01
		H_2S	—	0.01
PTRUCK	Pressurized Truck Loading	VOC	4.61	5.89

Emission Sources - Maximum Allowable Emission Rates

T120	Tank No. 120	VOC	2.48	5.65
		H_2S	<0.01	<0.01
T121	Tank No. 121	VOC	2.48	5.65
		H_2S	<0.01	<0.01
T122	Tank No. 122	VOC	2.48	5.65
		H_2S	<0.01	<0.01
T123	Tank No. 123	VOC	2.62	5.65
		H_2S	<0.01	<0.01
T124	Tank No. 124	VOC	2.48	5.65
		H_2S	<0.01	<0.01
T125	Tank No. 125	VOC	2.48	5.65
		H_2S	<0.01	<0.01
T126	Tank No. 126	VOC	43.09	11.01
		H_2S	0.02	0.01
T127	Tank No. 127	VOC	43.09	11.01
		H_2S	0.02	0.01
T128	Tank No. 128	VOC	43.09	10.86
		H_2S	0.02	0.01
T129	Tank No. 129	VOC	43.09	10.86
		H_2S	0.02	<0.01
T135	Tank No. 135	VOC	2.25	5.65
		H_2S	<0.01	<0.01
T136	Tank No. 136	VOC	2.25	5.65
		H_2S	<0.01	<0.01
T137	Tank No. 137	VOC	2.37	5.65
		H_2S	<0.01	<0.01
T138	Tank No. 138	VOC	2.39	5.65
		H_2S	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

T139	Tank No. 139	VOC	2.39	5.65
		H_2S	<0.01	<0.01
T154	Tank No. 154	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T155	Tank No. 155	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T156	Tank No. 156	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T157	Tank No. 157	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T158	Tank No. 158	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T159	Tank No. 159	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T160	Tank No. 160	VOC	2.56	5.65
		H_2S	<0.01	<0.01
T161	Tank No. 161	VOC	2.56	5.65
		H_2S	<0.01	<0.01
TANKCAP	Tank Cap (6)	VOC	—	80.73
		H_2S	—	0.03
FWPTK	Fire Water Pump Fuel Tank	VOC	0.03	0.01
		H_2S	<0.01	<0.01
EMGENTK	Emergency Generator Fuel Tank	VOC	0.03	0.01
		H_2S	<0.01	<0.01
SAMPTK	Sample Tank	VOC	1.12	0.01
		H_2S	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

FWP1	Fire Water Pump	VOC	0.14	<0.01
		NO_x	3.54	0.18
		CO	0.68	0.03
		PM	0.12	<0.01
		PM_{10}	0.12	<0.01
		$PM_{2.5}$	0.12	<0.01
		SO_2	<0.01	<0.01
EMGEN1	Emergency Generator 1	VOC	0.15	<0.01
		NO_x	6.95	0.35
		CO	0.74	0.04
		PM	0.05	<0.01
		PM_{10}	0.05	<0.01
		$PM_{2.5}$	0.05	<0.01
		SO_2	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

EMGEN2	Emergency Generator 2	VOC	0.05	<0.01
		NO_x	1.10	0.06
		CO	0.42	0.02
		PM	0.06	<0.01
		PM_{10}	0.06	<0.01
		$PM_{2.5}$	0.06	<0.01
		SO_2	<0.01	<0.01
MSSVCU	MSS Vapor Combustor —Wastewater Treatment	VOC	0.09	0.40
		NO_x	0.03	0.12
		CO	0.05	0.22
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		SO_2	<0.01	0.03
		H_2S	<0.01	<0.01
PTKMSS	Pressurized Trucks MSS Activities	VOC	266.63	3.86
VTRUCK	Vacuum Trucks	VOC	3.58	0.10
		H_2S	<0.01	<0.01
FRTANK	Frac Tanks	VOC	67.80	6.18
		H_2S	0.02	<0.01
SAMPLE	Product Sampling	VOC	1.48	3.23
		H_2S	<0.01	<0.01
FL-1	Pressure Tank MSS	VOC	128.03	0.38
		NO_x	35.34	0.11
		CO	71.06	0.21
VPIPEMSS	Vessels & Piping MSS (Uncontrolled)	VOC	52.33	4.67
		H_2S	0.02	<0.01
FL-1	Vessels & Piping MSS (Controlled)	VOC	88.62	2.66

Emission Sources - Maximum Allowable Emission Rates

		H_2S	<0.01	<0.01
		NO_x	12.23	0.37
		CO	24.42	0.73
		SO_2	0.04	<0.01
TKLAND-ATM	Uncontrolled Floating Roof Tank Landing Cap (7)	VOC	84.75	1.74
		H_2S	3.22	0.17
TKLAND-CAP	Overall Floating Roof Tank Landing Cap	VOC	84.75	2.70
		NO_x	15.15	0.43
		CO	55.50	1.33
		H_2S	3.22	0.17
		PM	0.75	0.02
		PM_{10}	0.75	0.02
		$PM_{2.5}$	0.75	0.02
		SO_2	2.27	0.22
MSSVCU	Controlled Floating Roof Tank Landing Cap (6)	VOC	50.49	1.42
		NO_x	15.15	0.43
		CO	55.50	1.33
		H_2S	0.01	<0.01
		PM	0.75	0.02
		PM_{10}	0.75	0.02
		$PM_{2.5}$	0.75	0.02
		SO_2	2.27	0.22

Emission Sources - Maximum Allowable Emission Rates

PORTVCU	Controlled Floating Roof Tank Landing Cap (6)	VOC	50.49	1.42
		NO_x	15.15	0.43
		CO	55.50	1.33
		H_2S	0.01	<0.01
		PM	0.75	0.02
		PM_{10}	0.75	0.02
		$PM_{2.5}$	0.75	0.02
		SO_2	2.27	0.22
MSSVCU	MSS Vapor Combustion Unit Pilot/Assist Gas	NO_x	2.84	2.76
		CO	5.21	5.07
		VOC	0.10	0.10
		H_2S	<0.01	<0.01
		PM	0.14	0.14
		PM_{10}	0.14	0.14
		$PM_{2.5}$	0.14	0.14
		SO_2	0.28	0.27
PORTVCU	MSS Vapor Combustion Unit Pilot/Assist Gas	NO_x	2.84	2.76
		CO	5.21	5.07
		VOC	0.10	0.10
		H_2S	<0.01	<0.01
		PM	0.14	0.14
		PM_{10}	0.14	0.14
		$PM_{2.5}$	0.14	0.14
		SO_2	0.28	0.27

Emission Sources - Maximum Allowable Emission Rates

MSSVCU/PORTVCU	MSSVCU & Portable MSS Vapor Combustion Unit Pilot/Assist Gas Cap	NO_x	2.84	2.76
		CO	5.21	5.07
		VOC	0.10	0.10
		H_2S	<0.01	<0.01
		PM	0.14	0.14
		PM_{10}	0.14	0.14
		$PM_{2.5}$	0.14	0.14
		SO_2	0.28	0.27

(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
H_2S - hydrogen sulfide
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
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
(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 limits for EPN TANKCAP apply to total rolling 12-months emissions from all storage tanks identified in Special Condition 12.
(7) Emission caps for tank floating roof landing activities apply to all floating roof tanks authorized by this permit (Identified in Special Condition 12).

Date: October 31, 2019

Emission Sources — Maximum Allowable Emission Rates

Permit Numbers GHGPSDTX62

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)
H-1A	H-1A	CO_2	60,049
		CH_4	1.13
		N_2O	0.11
		CO_2e	60,111
H-2A	H-2A	CO_2	49,289
		CH_4	0.93
		N_2O	0.09
		CO_2e	49,340
H-1B	H-1B	CO_2	60,049
		CH_4	1.13
		N_2O	0.11
		CO_2e	60,111
H-2B	H-2B	CO_2	49,289
		CH_4	0.93
		N_2O	0.09
		CO_2e	49,340
H-4	H-4	CO_2	4,103
		CH_4	0.08
		N_2O	0.01
		CO_2e	4,103
LOADFUG	LOADFUG	CO_2	--
		CH_4	51.75
		N_2O	--
		CO_2e	1,294

Emission Sources - Maximum Allowable Emission Rates

FL-1	FL-1	CO_2	7,665
		CH_4	35.03
		N_2O	0.01
		CO_2e	8,545
FL-1 (MSS)	FL-1 (MSS)	CO_2	498.80
		CH_4	0.03
		N_2O	0.01
		CO_2e	501
FWP1	FWP1	CO_2	32.33
		CH_4	0.03
		N_2O	0.04
		CO_2e	32
EMGEN1	EMGEN1	CO_2	37.06
		CH_4	0.04
		N_2O	0.09
		CO_2e	37
EMGEN2	EMGEN2	CO_2	10.76
		CH_4	0.01
		N_2O	0.03
		CO_2e	11
FUG-1	FUG-1 (5)	CO_2	--
		CH_4	30.08
		N_2O	--
		CO_2e	632
MSSVCU/PORTVCU	MSSVCU/PORTVCU	CO_2	2,734
		CH_4	0.06
		N_2O	0.01
		CO_2e	2,742

Permit Number GHGPSDTX62

Emission Sources - Maximum Allowable Emission Rates

Storage Tanks CAP		CO_2	--
		CH_4	16.20
		N_2O	--
		CO_2e	405

(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) CO_2 - carbon dioxide
N_2O - nitrous oxide
CH_4 - methane
CO_2e - carbon dioxide equivalents based on the following Global Warming Potentials (GWP) found in Table A-1 of Subpart A 40 CFR Part 98 (78 FR 71904) for each pollutant: CO_2 (1), N_2O (298), 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.

Date: October 31, 2019