Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 105710 and PSDTX1306M1

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 (4)	
			lbs/hour	TPY (5)
TRB1 TRB2 TRB7 TRB8 TRB13 TRB14	Propane Refrigeration Turbines Emission rates are per turbine	NO_x	39.60	See Annual CAP limits below.
		CO	24.10	
		VOC	0.90	
		SO_2	0.44	
		H_2S	<0.01	
		PM	0.98	
		PM_{10}	0.98	
		$PM_{2.5}$	0.98	
TRB3 TRB4 TRB9 TRB10 TRB15 TRB16	Ethylene Refrigeration Turbines Emission rates are per turbine	NO_x	39.60	
		CO	24.10	
		VOC	0.90	
		SO_2	0.44	
		H_2S	<0.01	
		PM	0.98	
		PM_{10}	0.98	
		$PM_{2.5}$	0.98	
TRB5 TRB6 TRB11 TRB12 TRB17 TRB18	Methane Refrigeration Turbines Emission rates are per turbine	NO_x	39.60	
		CO	24.10	
		VOC	0.90	
		SO_2	0.44	
		H_2S	<0.01	
		PM	0.98	
		PM_{10}	0.98	
		$PM_{2.5}$	0.98	

Emission Sources - Maximum Allowable Emission Rates

TRB1-TRB18	Annual CAP Six Propane, Six Ethylene, and Six Methane Refrigeration Turbines	NO_x	See hourly limits per turbine above.	3121.92
		CO		1900.26
		VOC		71.28
		SO_2		34.74
		H_2S		0.18
		PM		77.58
		PM_{10}		77.58
		$PM_{2.5}$		77.58
TO-1	Thermal Oxidizer	NO_x	4.69	17.31
		CO	13.84	46.86
		VOC	0.24	0.56
		SO_2	1.44	3.36
		H_2S	<0.01	0.02
		PM	0.58	2.15
		PM_{10}	0.58	2.15
		$PM_{2.5}$	0.58	2.15
TO-2	Thermal Oxidizer	NO_x	4.69	17.31
		CO	13.84	46.86
		VOC	0.24	0.56
		SO_2	1.44	3.36
		H_2S	<0.01	0.02
		PM	0.58	2.15
		PM_{10}	0.58	2.15
		$PM_{2.5}$	0.58	2.15

Emission Sources - Maximum Allowable Emission Rates

TO-3	Thermal Oxidizer	NO_x	4.69	17.31
		CO	13.84	46.86
		VOC	0.24	0.56
		SO_2	1.44	3.36
		H_2S	<0.01	0.02
		PM	0.58	2.15
		PM_{10}	0.58	2.15
		$PM_{2.5}$	0.58	2.15
WTDYFLR1	Wet/Dry Gas Flare 1 (Normal Operations)	NO_x	71.02	See Flare Cap limits below.
		CO	282.86	
		VOC	61.25	
		SO_2	4.42	
		H_2S	0.05	
WTDYFLR2	Wet/Dry Gas Flare 2 (Normal Operations)	NO_x	71.02	
		CO	282.86	
		VOC	61.25	
		SO_2	4.42	
		H_2S	0.05	
WTDYFLR1 and WTDYFLR2	Flare Cap (Normal Operations)	NO_x	71.02	63.83
		CO	282.86	374.54
		VOC	61.25	75.60
		SO_2	4.42	3.51
		H_2S	0.05	0.04
WTDYFLR1	Wet/Dry Gas Flare 1 (MSS)	NO_x	816.68	See Annual Flare Cap (MSS) below.
		CO	3,252.52	
		VOC	2,895.54	
		SO_2	2.20	
		H_2S	0.02	
WTDYFLR2	Wet/Dry Gas Flare 2 (MSS)	NO_x	816.68	

Emission Sources - Maximum Allowable Emission Rates

		CO	3,252.52	
		VOC	2,895.54	
		SO_2	2.20	
		H_2S	0.02	
WTDYFLR1 and WTDYFLR2	Annual Flare Cap (MSS)	NO_x	See hourly MSS limits per flare above.	228.09
		CO		908.39
		VOC		116.62
		SO_2		1.02
		H_2S		0.01
MRNFLR	Marine Flare	NO_x	389.73	58.18
		CO	1,552.05	414.77
		VOC	394.37	14.59
		SO_2	<0.01	<0.01
		H_2S	<0.01	<0.01
GEN1	Standby Generator 1	NO_x	28.70	1.30
		CO	5.28	0.24
		VOC	0.32	0.01
		SO_2	0.03	<0.01
		PM	0.16	<0.01
		PM_{10}	0.16	<0.01
		$PM_{2.5}$	0.16	<0.01
GEN2	Standby Generator 2	NO_x	28.70	1.30
		CO	5.28	0.24
		VOC	0.32	0.01
		SO_2	0.03	<0.01
		PM	0.16	<0.01
		PM_{10}	0.16	<0.01
		$PM_{2.5}$	0.16	<0.01
GEN3	Standby Generator 3	NO_x	28.70	1.30

Emission Sources - Maximum Allowable Emission Rates

		CO	5.28	0.24
		VOC	0.32	0.01
		SO_2	0.03	<0.01
		PM	0.16	<0.01
		PM_{10}	0.16	<0.01
		$PM_{2.5}$	0.16	<0.01
GEN4	Standby Generator 4	NO_x	28.70	1.30
		CO	5.28	0.24
		VOC	0.32	0.01
		SO_2	0.03	<0.01
		PM	0.16	<0.01
		PM_{10}	0.16	<0.01
		$PM_{2.5}$	0.16	<0.01
FWPUMP1	Diesel Firewater Pump 1	NO_x	2.90	0.13
		CO	0.69	0.03
		VOC	0.08	<0.01
		SO_2	<0.01	<0.01
		PM	0.10	<0.01
		PM_{10}	0.10	<0.01
		$PM_{2.5}$	0.10	<0.01
FWPUMP2	Diesel Firewater Pump 2	NO_x	2.90	0.13
		CO	0.69	0.03
		VOC	0.08	<0.01
		SO_2	<0.01	<0.01
		PM	0.10	<0.01
		PM_{10}	0.10	<0.01
		$PM_{2.5}$	0.10	<0.01
IFRTK1	Condensate Tank	VOC	0.60	1.27
TRKLD	Truck Loading	VOC	1.33	1.91

Emission Sources - Maximum Allowable Emission Rates

TRKVCU	Condensate Truck Loading VCU	NO_x	5.11	22.40
		CO	2.96	12.99
		VOC	1.02	1.47
		SO_2	0.02	0.09
		PM	0.28	1.21
		PM_{10}	0.28	1.21
		$PM_{2.5}$	0.28	1.21
WWLD	Wastewater Truck Loading	VOC	3.95	0.03
WWTK1	Wastewater Tank	VOC	0.18	<0.01
TK1902	Spent Scavenger Tank	VOC	0.01	<0.01
SCAVLD	Spent Scavenger Loading	VOC	<0.01	<0.01
DSLTK1	Diesel Tank	VOC	0.08	<0.01
DSLTK2	Diesel Tank	VOC	0.08	<0.01
DSLTK3	Diesel Tank	VOC	0.08	<0.01
DSLTK4	Diesel Tank	VOC	0.08	<0.01
FWPTK1	Diesel Tank	VOC	0.05	<0.01
FWPTK2	Diesel Tank	VOC	0.05	<0.01
GDFTK1	Diesel Tank	VOC	0.08	<0.01
GDFTK2	Gasoline Tank	VOC	14.52	0.31
AMNTK1	Amine Storage Tank	VOC	<0.01	<0.01
AMNSRG1	Amine Surge Tank - MSS	VOC	<0.01	<0.01
AMNSRG2	Amine Surge Tank - MSS	VOC	<0.01	<0.01
AMNSRG3	Amine Surge Tank - MSS	VOC	<0.01	<0.01
FUG	Fugitive Emissions (6)	VOC	18.12	79.40
		H_2S	<0.01	<0.01
TRKMSS	Truck Loading (MSS)	VOC	43.05	0.49

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

Emission Sources - Maximum Allowable Emission Rates

(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
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
H_2S - hydrogen sulfide
(4) Planned startup and shutdown (SS) lbs/hour emissions for all pollutants are authorized even if not specifically identified as SS.
(5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: DRAFT

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX123M1

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)
TRB1-TRB18	Annual cap Six Propane, Six Ethylene, and Six Methane Refrigeration Turbines	CO_2 (5)	3,963,366
		CH_4 (5)	75
		N_2O (5)	8
		CO_2e	3,967,486
TO-1	Thermal Oxidizer	CO_2 (5)	360,494
		CH_4 (5)	11
		N_2O (5)	<1
		CO_2e	360,789
TO-2	Thermal Oxidizer	CO_2 (5)	360,494
		CH_4 (5)	11
		N_2O (5)	<1
		CO_2e	360,789
TO-3	Thermal Oxidizer	CO_2 (5)	360,494
		CH_4 (5)	11
		N_2O (5)	<1
		CO_2e	360,789
WTDYFLR1, WTDYFLR2	Annual Flare Cap (Continuous and MSS)	CO_2 (5)(6)	346,637
		CH_4 (5)(6)	1,740
		N_2O (5)(6)	<1
		CO_2e (6)	390,305
MRNFLR	Marine Flare	CO_2 (5)	87,889
		CH_4 (5)	672.6
		N_2O (5)	<1
		CO_2e	104,759

Emission Sources - Maximum Allowable Emission Rates

GEN1	Standby Generator 1	CO_2 (5)	129
		CH_4 (5)	<1
		N_2O (5)	<1
		CO_2e	129
GEN2	Standby Generator 2	CO_2 (5)	129
		CH_4 (5)	<1
		N_2O (5)	<1
		CO_2e	129
GEN3	Standby Generator 3	CO_2 (5)	129
		CH_4 (5)	<1
		N_2O (5)	<1
		CO_2e	129
GEN4	Standby Generator 4	CO_2 (5)	129
		CH_4 (5)	<1
		N_2O (5)	<1
		CO_2e	129
FWPUMP1	Diesel Firewater Pump 1	CO_2 (5)	24
		CH_4 (5)	<1
		N_2O (5)	<1
		CO_2e	24
FWPUMP2	Diesel Firewater Pump 2	CO_2 (5)	24
		CH_4 (5)	<1
		N_2O (5)	<1
		CO_2e	24
TRKVCU	Condensate Truck Loading VCU (6)	CO_2 (5)	21,859
		CH_4 (5)	1
		N_2O (5)	<1
		CO_2e	21,947

Emission Sources - Maximum Allowable Emission Rates

FUG	Fugitive Emissions (5)(6)	CO_2 (5)	12
		CH_4 (5)	143
		CO_2e	3590
MSS-BOG	BOG Compressor MSS Venting	CH_4 (5)	1
		CO_2e	19

(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
HFCs - hydrofluorocarbons
PFCs - perfluorocarbons
SF_6 - sulfur hexafluoride
CO_2e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015): CO_2 (1), N_2O (298), CH_4(25), SF_6 (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 updated to be consistent with the records required by 30 TAC §116.164(b)

Date: DRAFT