Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 140792 and PSDTX1498

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)
TO1	TRAIN 1 THERMAL OXIDIZER	NO*	11.06	47.66
		SO_2	1.67	3.59
		H_2SO_4	0.13	0.27
		H_2S	<0.01	<0.01
		CO	6.51	28.03
		PM	0.59	2.54
		PM_{10}	0.59	2.54
		$PM_{2.5}$	0.59	2.54
		VOC	0.43	1.84
TO2	TRAIN 2 THERMAL OXIDIZER	NO*	11.06	47.66
		SO_2	1.67	3.59
		H_2SO_4	0.13	0.27
		H_2S	<0.01	<0.01
		CO	6.51	28.03
		PM	0.59	2.54
		PM_{10}	0.59	2.54
		$PM_{2.5}$	0.59	2.54
		VOC	0.43	1.84
TO3	TRAIN 3 THERMAL OXIDIZER	NO*	7.90	34.04
		SO_2	1.67	3.59
		H_2SO_4	0.13	0.27
		H_2S	<0.01	<0.01
		CO	6.51	28.03
		PM	0.59	2.54
		PM_{10}	0.59	2.54
		$PM_{2.5}$	0.59	2.54
		VOC	0.43	1.84

Emission Sources - Maximum Allowable Emission Rates

TO4	TRAIN 4 THERMAL OXIDIZER	NO*	7.90	34.04
		SO_2	1.67	3.59
		H_2SO_4	0.13	0.27
		H_2S	<0.01	<0.01
		CO	6.51	28.03
		PM	0.59	2.54
		PM_{10}	0.59	2.54
		$PM_{2.5}$	0.59	2.54
		VOC	0.43	1.84
TO5	TRAIN 5 THERMAL OXIDIZER	NO*	7.90	34.04
		SO_2	1.67	3.59
		H_2SO_4	0.13	0.27
		H_2S	<0.01	<0.01
		CO	6.51	28.03
		PM	0.59	2.54
		PM_{10}	0.59	2.54
		$PM_{2.5}$	0.59	2.54
		VOC	0.43	1.84
GT1-A	TRAIN 1 GT DRIVER A	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT1-B	TRAIN 1 GT DRIVER B	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT2-A	TRAIN 2 GT DRIVER A	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT2-B	TRAIN 2 GT DRIVER B	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT3-A	TRAIN 3 GT DRIVER A	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT3-B	TRAIN 3 GT DRIVER B	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT4-A	TRAIN 4 GT DRIVER A	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT4-B	TRAIN 4 GT DRIVER B	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
GT5-A	TRAIN 5 GT DRIVER A	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88

Emission Sources - Maximum Allowable Emission Rates

GT5-B	TRAIN 5 GT DRIVER B	NO*	18.00	78.84
		SO_2	0.03	0.13
		H_2SO_4	<0.01	0.01
		H_2S	<0.01	<0.01
		CO	30.00	131.40
		PM	5.75	24.44
		PM_{10}	5.75	24.44
		$PM_{2.5}$	5.75	24.44
		VOC	1.80	7.88
DGEN1	ESSENTIAL SERVICE DIESEL GENERATOR 1	NO*	38.45	1.92
		SO_2	0.05	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	21.03	1.05
		PM	1.20	0.06
		PM_{10}	1.20	0.06
		$PM_{2.5}$	1.20	0.06
		VOC	1.86	0.09
DGEN2	ESSENTIAL SERVICE DIESEL GENERATOR 2	NO*	38.45	1.92
		SO_2	0.05	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	21.03	1.05
		PM	1.20	0.06
		PM_{10}	1.20	0.06
		$PM_{2.5}$	1.20	0.06
		VOC	1.86	0.09
DGEN3	ESSENTIAL SERVICE DIESEL GENERATOR 3	NO*	38.45	1.92
		SO_2	0.05	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	21.03	1.05
		PM	1.20	0.06

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	1.20	0.06
		$PM_{2.5}$	1.20	0.06
		VOC	1.86	0.09
DGEN4	ESSENTIAL SERVICE DIESEL GENERATOR 4	NO*	38.45	1.92
		SO_2	0.05	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	21.03	1.05
		PM	1.20	0.06
		PM_{10}	1.20	0.06
		$PM_{2.5}$	1.20	0.06
		VOC	1.86	0.09
SWFP-A	SEAWATER FIREPUMP A	NO*	4.59	0.23
		SO_2	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	4.02	0.20
		PM	0.23	0.01
		PM_{10}	0.23	0.01
		$PM_{2.5}$	0.23	0.01
		VOC	0.36	0.02
SWFP-B	SEAWATER FIREPUMP B	NO*	4.59	0.23
		SO_2	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	4.02	0.20
		PM	0.23	0.01
		PM_{10}	0.23	0.01
		$PM_{2.5}$	0.23	0.01
		VOC	0.36	0.02
WGFLR-A	WET GAS FLARE A	NO*	0.08	0.30
		SO_2	<0.01	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	0.65	2.56

Emission Sources - Maximum Allowable Emission Rates

		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	0.01	0.04
WGFLR-B	WET GAS FLARE B	NO*	0.08	0.30
		SO_2	<0.01	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	0.65	2.56
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	0.01	0.04
DGFLR-A	DRY GAS FLARE A	NO*	0.17	0.67
		SO_2	<0.01	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	1.45	5.72
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	0.02	0.10
DGFLR-B	DRY GAS FLARE B	NO*	0.17	0.67
		SO_2	<0.01	<0.01
		H_2SO_4	<0.01	<0.01
		H_2S	<0.01	<0.01
		CO	1.45	5.72
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	0.02	0.10
FLAREMSS	WET AND DRY GAS FLARES COMBINED MSS EMISSIONS	NO*	747.10	114.00
		SO_2	18.24	0.26

Emission Sources - Maximum Allowable Emission Rates

		H_2SO_4	1.40	0.02
		H_2S	<0.01	<0.01
		CO	1491.50	228.00
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	2539.80	390.00
VENTIG	VENT (Ignited)	NO*	100.57	2.38
		SO_2	0.04	0.00
		CO	862.29	20.43
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	16.68	0.13
FUG-T	TERMINAL FUGITIVE EMISSIONS (5)	VOC	0.69	3.00

(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_2SO_4 - sulfuric acid
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
(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: November 13, 2020

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX158

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)
TO1	TRAIN 1 THERMAL OXIDIZER	CO_2 (5)	390,557
		CH_4 (5)	0.75
		N_2O (5)	0.08
		CO_2e	390,598
TO2	TRAIN 2 THERMAL OXIDIZER	CO_2 (5)	390,557
		CH_4 (5)	0.75
		N_2O (5)	0.08
		CO_2e	390,598
TO3	TRAIN 3 THERMAL OXIDIZER	CO_2 (5)	381,913
		CH_4 (5)	0.75
		N_2O (5)	0.08
		CO_2e	381,954
TO4	TRAIN 4 THERMAL OXIDIZER	CO_2 (5)	381,913
		CH_4 (5)	0.75
		N_2O (5)	0.08
		CO_2e	381,954
TO5	TRAIN 5 THERMAL OXIDIZER	CO_2 (5)	381,913
		CH_4 (5)	0.75
		N_2O (5)	0.08
		CO_2e	381,954
GT1-A	TRAIN 1 GT DRIVER A	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT1-B	TRAIN 1 GT DRIVER B	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82

Emission Sources - Maximum Allowable Emission Rates

		CO_2e	433,270
GT2-A	TRAIN 2 GT DRIVER A	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT2-B	TRAIN 2 GT DRIVER B	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT3-A	TRAIN 3 GT DRIVER A	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT3-B	TRAIN 3 GT DRIVER B	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT4-A	TRAIN 4 GT DRIVER A	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT4-B	TRAIN 4 GT DRIVER B	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT5-A	TRAIN 5 GT DRIVER A	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270
GT5-B	TRAIN 5 GT DRIVER B	CO_2 (5)	432,822
		CH_4 (5)	8.16
		N_2O (5)	0.82
		CO_2e	433,270

Emission Sources - Maximum Allowable Emission Rates

DGEN1	ESSENTIAL SERVICE DIESEL GENERATOR 1	CO_2 (5)	212
		CH_4 (5)	0.13
		N_2O (5)	0.00
		CO_2e	215
DGEN2	ESSENTIAL SERVICE DIESEL GENERATOR 2	CO_2 (5)	212
		CH_4 (5)	0.13
		N_2O (5)	0.00
		CO_2e	215
DGEN3	ESSENTIAL SERVICE DIESEL GENERATOR 3	CO_2 (5)	212
		CH_4 (5)	0.13
		N_2O (5)	0.00
		CO_2e	215
DGEN4	ESSENTIAL SERVICE DIESEL GENERATOR 4	CO_2 (5)	212
		CH_4 (5)	0.13
		N_2O (5)	0.00
		CO_2e	215
SWFP-A	SEAWATER FIREPUMP A	CO_2 (5)	41
		CH_4 (5)	0.02
		N_2O (5)	0.00
		CO_2e	41
SWFP-B	SEAWATER FIREPUMP B	CO_2 (5)	41
		CH_4 (5)	0.02
		N_2O (5)	0.00
		CO_2e	41
WGFLR-A	WET GAS FLARE A	CO_2 (5)	611
		CH_4 (5)	0.02
		N_2O (5)	0.00
		CO_2e	664
WGFLR-B	WET GAS FLARE B	CO_2 (5)	611
		CH_4 (5)	0.02
		N_2O (5)	0.00
		CO_2e	664

Emission Sources - Maximum Allowable Emission Rates

DGFLR-A	DRY GAS FLARE A	CO_2 (5)	1,366
		CH_4 (5)	0.04
		N_2O (5)	0.00
		CO_2e	1,484
DGFLR-B	DRY GAS FLARE B	CO_2 (5)	1,366
		CH_4 (5)	0.04
		N_2O (5)	0.00
		CO_2e	1,484
FLAREGHGMSS	WET AND DRY GAS FLARES COMBINED GHG MSS EMISSIONS	CO_2 (5)	149,415
		CH_4 (5)	0.00
		N_2O (5)	0.00
		CO_2e	149,415
VENTIG	VENT (Ignited)	CO_2 (5)	5,180
		CH_4 (5)	16.89
		N_2O (5)	0.01
		CO_2e	5,605
FUG-T	TERMINAL FUGITIVE EMISSIONS	CO_2 (5)	0
		CH_4 (5)	215
		N_2O (5)	0.00
		CO_2e	5,383

(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 (1/2015): CO_2 (1), CH_4 (25), N_2O (298)
(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.

Date: November 13, 2020