Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 40039 and PSDTX925

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)
Case 1A: Turbine and Duct Burner firing Natural Gas - Hourly Emissions				
GTDB1	Turbine/HRSG No. 1 (GE Frame 7FA Turbine with 550 MMBtu/hr Duct Burner) (5)	NO_x	106.0	-
		NO_x MSS	250.0	-
		CO	106.0	-
		CO MSS	2200.0	-
		PM	24.8	-
		PM_{10}	24.8	-
		$PM_{2.5}$	24.8	-
		VOC	16.2	-
		VOC MSS	330.0	-
		SO_2	33.5	-
		H_2SO_4	3.3	-
GTDB2	Turbine/HRSG No. 2 (GE Frame 7FA Turbine with 550 MMBtu/hr Duct Burner) (5)	NO_x	106.0	-
		NO_x MSS	250.0	-
		CO	106.0	-
		CO MSS	2200.0	-
		PM	24.8	-
		PM_{10}	24.8	-
		$PM_{2.5}$	24.8	-
		VOC	16.2	-
		VOC MSS	330.0	-
		SO_2	33.5	-
		H_2SO_4	3.3	-
GTDB3	Turbine/HRSG No. 3 (GE Frame 7FA Turbine with 550 MMBtu/hr Duct Burner) (5)	NO_x	106.0	-
		NO_x MSS	250.0	-

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		CO	106.0	-
		CO MSS	2200.0	-
		PM	24.8	-
		PM_{10}	24.8	-
		$PM_{2.5}$	24.8	-
		VOC	16.2	-
		VOC MSS	330.0	-
		SO_2	33.5	-
		H_2SO_4	3.3	-
Case 1B: Turbine and Duct Burner firing Natural Gas - Annual Emissions				
GTDB1, 2, and 3	Turbine/HRSG No. 1, 2, and 3 (Three GE Frame 7FA Turbines with Duct Burner firing) (5)	NO_x	-	1143.2
		CO	-	1097.2
		PM	-	300.9
		PM_{10}	-	300.9
		$PM_{2.5}$	-	300.9
		VOC	-	155.1
	Annual rates based on total combined turbine/HRSGUs emissions. (5)	SO_2	-	152.4
		H_2SO_4	-	15.8
Case 2A: Turbine firing No. 2 Fuel Oil (720 Hours) and Duct Burner firing Natural Gas - Hourly Emissions				
GTDB1	Turbine/HRSG No. 1 (GE Frame 7FA Turbine with 550 MMBtu/hr Duct Burner) (5)	NO_x	379.0	-
		NO_x MSS	379.0	-
		CO	150.5	-
		CO MSS	2200.0	-
		PM	49.8	-
		PM_{10}	49.8	-
		$PM_{2.5}$	49.8	-
		VOC	27.3	-
		VOC MSS	330.0	-
		SO_2	106.4	-

Emission Sources - Maximum Allowable Emission Rates

		H_2SO_4	10.3	-
GTDB2	Turbine/HRSG No. 2 (GE Frame 7FA Turbine with 550 MMBtu/hr Duct Burner) (5)	NO_x	379.0	-
		NO_x MSS	379.0	-
		CO	150.5	-
		CO MSS	2200.0	-
		PM	49.8	-
		PM_{10}	49.8	-
		$PM_{2.5}$	49.8	-
		VOC	27.3	-
		VOC MSS	330.0	-
		SO_2	106.4	-
		H_2SO_4	10.3	-
GTDB3	Turbine/HRSG No. 3 (GE Frame 7FA Turbine with 550 MMBtu/hr Duct Burner) (5)	NO_x	379.0	-
		NO_x MSS	379.0	-
		CO	150.5	-
		CO MSS	2200.0	-
		PM	49.8	-
		PM_{10}	49.8	-
		$PM_{2.5}$	49.8	-
		VOC	27.3	-
		VOC MSS	330.0	-
		SO_2	106.4	-
		H_2SO_4	10.3	-
Case 2B: Turbine firing No. 2 Fuel Oil (720 Hours) and Duct Burner firing Natural Gas - Annual Emissions				
GTDB1, 2, and 3	Turbine/HRSG No. 1, 2, and 3 (Three GE Frame 7FA Turbines with Duct Burner firing) (5)	NO_x	-	1414.2
		CO	-	1134.8
		PM	-	328.0
		PM_{10}	-	328.0
		$PM_{2.5}$	-	328.0

Emission Sources - Maximum Allowable Emission Rates

		VOC	-	164.4
	Annual rates based on total combined turbine/HRSGUs emissions. (5)	SO_2	-	244.8
		H_2SO_4	-	25.5
OILTNK	Fuel Oil Tank	VOC	5.68	1.18
FUELFUG	Fugitives (6)	VOC	1.15	5.05

(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
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_2SO_4 - sulfuric acid
MSS - maintenance, startup, and shutdown

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Planned MSS, grid swaps, tuning events, and black start testing emissions for all pollutants are authorized even if not specifically identified as MSS. During any clock hour that includes one or more minutes of planned MSS, that pollutant's MSS hourly emission rate, if applicable, shall apply during that clock hour.

(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: April 27, 2018