Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 122003 and PSDTX1424

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 (4)	TPY (5)
Option 1				
1	Combustion Turbine 1/ Duct Burner 1 (GE 7HA.01, 2x1)	NO_x	28.71	132.59
		NO_x (MSS)	208.96	-
		CO	17.49	177.70
		CO (MSS)	1,169.62	-
		VOC	10.00	66.78
		VOC (MSS)	443.30	-
		SO_2	6.48	23.79
		PM	21.45	63.86
		PM_{10}	21.45	63.86
		$PM_{2.5}$	21.45	63.86
		NH_3	26.51	97.42
		H_2SO_4	4.17	15.28
2	Combustion Turbine 2/ Duct Burner 2 (GE 7HA.01, 2x1)	NO_x	28.71	132.59
		NO_x (MSS)	208.96	-
		CO	17.49	177.70
		CO (MSS)	1,169.62	-
		VOC	10.00	66.78
		VOC (MSS)	443.30	-
		SO_2	6.48	23.79

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		PM	21.45	63.86
		PM_{10}	21.45	63.86
		$PM_{2.5}$	21.45	63.86
		NH_3	26.51	97.42
		H_2SO_4	4.17	15.28
Option 2				
1	Combustion Turbine 1/ Duct Burner 1 (GE 7HA.02, 2x1)	NO_x	35.53	150.67
		NO_x (MSS)	212.08	-
		CO	21.67	179.78
		CO (MSS)	1,171.53	-
		VOC	12.32	55.24
		VOC (MSS)	144.90	-
		SO_2	8.03	29.76
		PM	25.30	76.28
		PM_{10}	25.30	76.28
		$PM_{2.5}$	25.30	76.28
		NH_3	32.89	121.88
		H_2SO_4	5.15	19.10
2	Combustion Turbine 2/ Duct Burner 2 (GE 7HA.02, 2x1)	NO_x	35.53	150.67
		NO_x (MSS)	212.08	-
		CO	21.67	179.78
		CO (MSS)	1,171.53	-
		VOC	12.32	55.24
		VOC (MSS)	144.90	-
		SO_2	8.03	29.76

Emission Sources - Maximum Allowable Emission Rates

		PM	25.30	76.28
		PM_{10}	25.30	76.28
		$PM_{2.5}$	25.30	76.28
		NH_3	32.89	121.88
		H_2SO_4	5.15	19.10
Option 3				
1	Combustion Turbine 1/ Duct Burner 1 (GE 7FA.05, 2x1)	NO_x	25.85	99.61
		NO_x (MSS)	82.50	-
		CO	15.73	221.28
		CO (MSS)	1,674.20	-
		VOC	9.01	110.74
		VOC (MSS)	505.95	-
		SO_2	5.85	21.09
		PM	20.02	59.18
		PM_{10}	20.02	59.18
		$PM_{2.5}$	20.02	59.18
		NH_3	23.98	86.34
		H_2SO_4	3.75	13.55
2	Combustion Turbine 2/ Duct Burner 2 (GE 7FA.05, 2x1)	NO_x	25.85	99.61
		NO_x (MSS)	82.50	-
		CO	15.73	221.28
		CO (MSS)	1,674.20	-
		VOC	9.01	110.74
		VOC (MSS)	505.95	-
		SO_2	5.85	21.09

Emission Sources - Maximum Allowable Emission Rates

		PM	20.02	59.18
		PM_{10}	20.02	59.18
		$PM_{2.5}$	20.02	59.18
		NH_3	23.98	86.34
		H_2SO_4	3.75	13.55
Option 4				
1	Combustion Turbine 1/ Duct Burner 1 (MHI 501GAC, 2x1)	NO_x	25.08	116.51
		NO_x (MSS)	54.60	-
		CO	22.88	552.71
		CO (MSS)	1,287.07	-
		VOC	8.47	191.60
		VOC (MSS)	443.38	-
		SO_2	4.73	20.54
		PM	14.19	57.40
		PM_{10}	14.19	57.40
		$PM_{2.5}$	14.19	57.40
		NH_3	13.86	60.21
		H_2SO_4	4.31	18.72
2	Combustion Turbine 2/ Duct Burner 2 (MHI 501GAC, 2x1)	NO_x	25.08	116.51
		NO_x (MSS)	54.60	-
		CO	22.88	552.71
		CO (MSS)	1,287.07	-
		VOC	8.47	191.60
		VOC (MSS)	443.38	-
		SO_2	4.73	20.54

Emission Sources - Maximum Allowable Emission Rates

		PM	14.19	57.40
		PM_{10}	14.19	57.40
		$PM_{2.5}$	14.19	57.40
		NH_3	13.86	60.21
		H_2SO_4	4.31	18.72
Option 5				
1	Combustion Turbine 1/ Duct Burner 1 [MHI 501GAC, (2) 1x1]	NO_x	25.08	116.03
		NO_x (MSS)	54.60	-
		CO	22.88	533.23
		CO (MSS)	1,351.15	-
		VOC	8.47	182.29
		VOC (MSS)	433.80	-
		SO_2	4.73	20.54
		PM	14.19	57.40
		PM_{10}	14.19	57.40
		$PM_{2.5}$	14.19	57.40
		NH_3	13.86	60.21
		H_2SO_4	4.31	18.72
2	Combustion Turbine 2/ Duct Burner 2 [MHI 501GAC, (2) 1x1]	NO_x	25.08	116.03
		NO_x (MSS)	54.60	-
		CO	22.88	533.23
		CO (MSS)	1,351.15	-
		VOC	8.47	182.29
		VOC (MSS)	433.80	-
		SO_2	4.73	20.54

Emission Sources - Maximum Allowable Emission Rates

		PM	14.19	57.40
		PM_{10}	14.19	57.40
		$PM_{2.5}$	14.19	57.40
		NH_3	13.86	60.21
		H_2SO_4	4.31	18.72
Option 6				
1	Combustion Turbine 1/ Duct Burner 1 [Siemens SCC6-8000H(1.4), 2x1]	NO_x	25.30	128.63
		NO_x (MSS)	173.63	-
		CO	15.40	362.29
		CO (MSS)	1,952.45	-
		VOC	7.92	79.83
		VOC (MSS)	332.77	-
		SO_2	4.95	20.69
		PM	15.62	65.56
		PM_{10}	15.62	65.56
		$PM_{2.5}$	15.62	65.56
		NH_3	23.43	100.09
		H_2SO_4	1.76	7.38
2	Combustion Turbine 2/ Duct Burner 2 [Siemens SCC6-8000H(1.4), 2x1]	NO_x	25.30	128.63
		NO_x (MSS)	173.63	-
		CO	15.40	362.29
		CO (MSS)	1,952.45	-
		VOC	7.92	79.83
		VOC (MSS)	332.77	-
		SO_2	4.95	20.69

Emission Sources - Maximum Allowable Emission Rates

		PM	15.62	65.56
		PM_{10}	15.62	65.56
		$PM_{2.5}$	15.62	65.56
		NH_3	23.43	100.09
		H_2SO_4	1.76	7.38
3	Auxiliary Boiler	NO_x	1.61	3.53
		CO	5.45	11.93
		VOC	0.83	1.82
		PM	1.15	2.52
		PM_{10}	1.15	2.52
		$PM_{2.5}$	1.15	2.52
		SO_2	0.09	0.20
4	Emergency Generator	NO_x	42.33	3.53
		CO	23.02	11.93
		VOC	42.33	1.82
		PM	1.32	2.52
		PM_{10}	1.32	2.52
		$PM_{2.5}$	1.32	2.52
		SO_2	0.05	<0.01
5	Fire Pump Engine	NO_x	4.96	0.25
		CO	0.01	<0.01
		VOC	4.96	0.25
		PM	0.25	0.01
		PM_{10}	0.25	0.01
		$PM_{2.5}$	0.25	0.01

Emission Sources - Maximum Allowable Emission Rates

		SO_2	0.01	<0.01
6	Cooling Tower	PM	15.01	65.75
		PM_{10}	1.06	4.65
		$PM_{2.5}$	0.01	0.03
7	Diesel Tank - Emergency Generator	VOC	0.01	0.02
8	Diesel Tank - Fire Pump Engine	VOC	0.01	<0.01
9	Fugitive Emissions - Ammonia (6)	NH_3	0.03	0.15
10	Dew Point Heater	NO_x	0.60	2.63
		CO	1.10	4.82
		VOC	0.08	0.35
		PM	0.07	0.31
		PM_{10}	0.07	0.31
		$PM_{2.5}$	0.07	0.31
		SO_2	0.01	0.03
11	Fugitive Emissions - Natural Gas (6)	VOC	<0.01	0.01
LOV_1	Lube Oil Vent	PM	0.09	0.39
		PM_{10}	0.09	0.39
		$PM_{2.5}$	0.09	0.39
		VOC	0.09	0.39
LOV_2	Lube Oil Vent	PM	0.09	0.39
		PM_{10}	0.09	0.39
		$PM_{2.5}$	0.09	0.39
		VOC	0.09	0.39
LOV_3	Lube Oil Vent	PM	0.09	0.39

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.09	0.39
		$PM_{2.5}$	0.09	0.39
		VOC	0.09	0.39
LOV_4	Lube Oil Vent	PM	0.09	0.39
		PM_{10}	0.09	0.39
		$PM_{2.5}$	0.09	0.39
		VOC	0.09	0.39
ILE_MSS	Inherently Low Emitting Maintenance Activities	NO_x	<0.01	<0.01
		CO	<0.01	<0.01
		VOC	1.59	0.02
		PM	0.17	0.02
		PM_{10}	0.17	0.02
		$PM_{2.5}$	0.17	0.02
		NH_3	<0.01	<0.01

(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
(4) Planned maintenance, startup, and shutdown (MSS) lbs/hour 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 maximum hourly emission rate shall apply during that clock hour.
(5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. Annual emission rates for each source include planned MSS emissions.
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Emission Sources - Maximum Allowable Emission Rates

Date: February 9, 2015