Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX111

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for sources of air contaminants on the applicant's property authorized by this permit. 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)
Scenario 1 – Turbine Option 1 - Siemens			
E-ST1a	Siemens (6) Gas Turbine 1 Simple Cycle	N_2O (5)	1
		CH_4 (5)	7
		CO_2 (5)	381,367
		CO_2e	381,783
E-ST2a	Siemens (6) Gas Turbine 2 Simple Cycle	N_2O (5)	1
		CH_4 (5)	7
		CO_2 (5)	381,367
		CO_2e	381,783
E-ST3a	Siemens (6) Gas Turbine 3 Simple Cycle	N_2O (5)	1
		CH_4 (5)	7
		CO_2 (5)	381,367
		CO_2e	381,783
E-ST4a	Siemens (6) Gas Turbine 4 Simple Cycle	N_2O (5)	1
		CH_4 (5)	7
		CO_2 (5)	381,367
		CO_2e	381,783
Scenario 2 – Turbine Option 1 - Siemens			

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E-ST1a
E-ST1b
	Siemens (6)
	  Gas Turbine 1
	    Combined + Simple Cycle
		N_2O (5)	3

		CH_4 (5)	30
		CO_2 (5)	1,598,901
		CO_2e	1,600,545

E-ST2a
E-ST2b
	Siemens (6)
	  Gas Turbine 2
	    Combined + Simple Cycle
		N_2O (5)	3

		CH_4 (5)	30
		CO_2 (5)	1,598,901
		CO_2e	1,600,545
Scenario 1 – Turbine Option 2 - GE			

E-ST1a	GE (6)
	  Gas Turbine 1
	    Simple Cycle
		N_2O (5)	1

		CH_4 (5)	7
		CO_2 (5)	358,300
		CO_2e	358,675

E-ST2a	GE (6)
	  Gas Turbine 2
	    Simple Cycle
		N_2O (5)	1

		CH_4 (5)	7
		CO_2 (5)	358,300
		CO_2e	358,675

E-ST3a	GE (6)
	  Gas Turbine 3
	    Simple Cycle
		N_2O (5)	1

		CH_4 (5)	7
		CO_2 (5)	358,300
		CO_2e	358,675

E-ST4a	GE (6)
	  Gas Turbine 4
	    Simple Cycle
		N_2O (5)	1

		CH_4 (5)	7
		CO_2 (5)	358,300
		CO_2e	358,675

Emission Sources - Maximum Allowable Emission Rates

Scenario 2 – Turbine Option 2 - GE			

E-ST1a E-ST1b	GE (6)
	  Gas Turbine 1
	    Combined + Simple Cycle
		N_2O (5)	3

		CH_4 (5)	28
		CO_2 (5)	1,487,147
		CO_2e	1,488,681

E-ST2a E-ST2b	GE (6)
	  Gas Turbine 2
	    Combined + Simple Cycle
		N_2O (5)	3

		CH_4 (5)	28
		CO_2 (5)	1,487,147
		CO_2e	1,488,681
Ancillary Emissions			
E-AUXBLR	Auxiliary Boiler	N_2O (5)	<1
		CH_4 (5)	<1
		CO_2 (5)	5,554
		CO_2e	5,589
E-FWP	Firewater Pump	N_2O (5)	<1
		CH_4 (5)	<1
		CO_2 (5)	19
		CO_2e	19
FUG-NG	Natural Gas Fugitives	CH_4 (5)	62
		CO_2 (5)	1
		CO_2e	1,548
FUG-SF_6	Circuit Breaker Insulation Fugitives	SF_6 (5)	<1
		CO_2e	228
MSSFUG	MSS Emissions	CH_4 (5)	<1
		CO_2e	4

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(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) CH_4 - methane

    CO_2 - carbon dioxide

    CO_2e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015): CO_2 (1), N_2O (298), CH_4 (25), and SF_6 (22,800).

    N_2O - nitrous oxide

    SF_6 - sulfur hexafluoride

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. These emission rates include maintenance, startup, and shutdown.

(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

(6) Scenario 1 emission rates apply until the construction of and completion of the initial compliance test for Scenario 2 operations.

Date: March 24, 2016