Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 131316 and PSDTX1454

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)	
			lb/hr	TPY(5)
GT-11	Alstom CTG with 799 MMBtu DB	NO_x	27.9	147.02
		NO_x (MSS)	83.0	-
		CO	17.1	89.5
		CO (MSS)	63.0	-
		VOC	9.7	121.88
		VOC (MSS)	239.3	-
		PM	21.4	93.73
		PM_{10}	21.4	93.73
		$PM_{2.5}$	21.4	93.73
		SO_2	5.0	5.43
		NH_3	36.0	157.68
		H_2SO_4	9.5	10.42
		CH_2O	0.82	3.59
GT-12	Alstom CTG with 799 MMBtu DB	NO_x	27.9	147.02
		NO_x (MSS)	83.0	-
		CO	17.1	89.5
		CO (MSS)	63.0	-
		VOC	9.7	121.88
		VOC (MSS)	239.3	-
		PM	21.4	93.73

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	21.4	93.73
		$PM_{2.5}$	21.4	93.73
		SO_2	5.0	5.43
		NH_3	36.0	157.68
		H_2SO_4	9.5	10.42
		CH_2O	0.82	3.59
GT-21	Alstom CTG with 799 MMBtu DB	NO_x	27.9	147.02
		NO_x (MSS)	83.0	-
		CO	17.1	89.5
		CO (MSS)	63.0	-
		VOC	9.7	121.88
		VOC (MSS)	239.3	-
		PM	21.4	93.73
		PM_{10}	21.4	93.73
		$PM_{2.5}$	21.4	93.73
		SO_2	5.0	5.43
		NH_3	36.0	157.68
		H_2SO_4	9.5	10.42
		CH_2O	0.82	3.59

Emission Sources - Maximum Allowable Emission Rates

GT-22	Alstom CTG with 799 MMBtu DB	NO_x	27.9	147.02
		NO_x (MSS)	83.0	-
		CO	17.1	89.5
		CO (MSS)	63.0	-
		VOC	9.7	121.88
		VOC (MSS)	239.3	-
		PM	21.4	93.73
		PM_{10}	21.4	93.73
		$PM_{2.5}$	21.4	93.73
		SO_2	5.0	5.43
		NH_3	36.0	157.68
		H_2SO_4	9.5	10.42
		CH_2O	0.82	3.59
GT-31	Alstom CTG with 799 MMBtu DB	NO_x	27.9	147.02
		NO_x (MSS)	83.0	-
		CO	17.1	89.5
		CO (MSS)	63.0	-
		VOC	9.7	121.88
		VOC (MSS)	239.3	-
		PM	21.4	93.73
		PM_{10}	21.4	93.73
		$PM_{2.5}$	21.4	93.73
		SO_2	5.0	5.43
		NH_3	36.0	157.68
		H_2SO_4	9.5	10.42

Emission Sources - Maximum Allowable Emission Rates

		CH_2O	0.82	3.59
GT-32	Alstom CTG with 799 MMBtu DB	NO_x	27.9	147.02
		NO_x (MSS)	83.0	-
		CO	17.1	89.5
		CO (MSS)	63.0	-
		VOC	9.7	121.88
		VOC (MSS)	239.3	-
		PM	21.4	93.73
		PM_{10}	21.4	93.73
		$PM_{2.5}$	21.4	93.73
		SO_2	5.0	5.43
		NH_3	36.0	157.68
		H_2SO_4	9.5	10.42
		CH_2O	0.82	3.59
CT-1	Cooling Tower 1	PM	2.33	10.20
		PM_{10}	1.01	4.43
		$PM_{2.5}$	0.005	0.02
CT-2	Cooling Tower 2	PM	2.33	10.20
		PM_{10}	1.01	4.43
		$PM_{2.5}$	0.005	0.02
CT-3	Cooling Tower 3	PM	2.33	10.20
		PM_{10}	1.01	4.43
		$PM_{2.5}$	0.005	0.02

Emission Sources - Maximum Allowable Emission Rates

FWP-1	Emergency Firewater Pump 1	NO_x	2.50	0.12
		CO	0.72	0.04
		VOC	0.99	0.05
		PM	0.09	0.01
		PM_{10}	0.09	0.01
		$PM_{2.5}$	0.09	0.01
		SO_2	0.01	0.01
FWP-2	Emergency Firewater Pump 2	NO_x	2.50	0.12
		CO	0.72	0.04
		VOC	0.99	0.05
		PM	0.09	0.01
		PM_{10}	0.09	0.01
		$PM_{2.5}$	0.09	0.01
		SO_2	0.01	0.01
FWP-3	Emergency Firewater Pump 3	NO_x	2.50	0.12
		CO	0.72	0.04
		VOC	0.99	0.05
		PM	0.09	0.01
		PM_{10}	0.09	0.01
		$PM_{2.5}$	0.09	0.01
		SO_2	0.01	0.01
EG-1	Emergency Generator 1	NO_x	15.63	0.78
		CO	8.60	0.43
		VOC	1.05	0.05
		PM	0.49	0.02

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.49	0.02
		$PM_{2.5}$	0.49	0.02
		SO_2	0.02	0.01
EG-2	Emergency Generator 2	NO_x	15.63	0.78
		CO	8.60	0.43
		VOC	1.05	0.05
		PM	0.49	0.02
		PM_{10}	0.49	0.02
		$PM_{2.5}$	0.49	0.02
		SO_2	0.02	0.01
EG-3	Emergency Generator 3	NO_x	15.63	0.78
		CO	8.60	0.43
		VOC	1.05	0.05
		PM	0.49	0.02
		PM_{10}	0.49	0.02
		$PM_{2.5}$	0.49	0.02
		SO_2	0.02	0.01
DIESEL-1	Diesel Storage Tank 1	VOC	0.05	0.01
DIESEL-2	Diesel Storage Tank 2	VOC	0.01	0.01
DIESEL-3	Diesel Storage Tank 3	VOC	0.05	0.01
DIESEL-4	Diesel Storage Tank 4	VOC	0.01	0.01
DIESEL-5	Diesel Storage Tank 5	VOC	0.05	0.01
DIESEL-6	Diesel Storage Tank 6	VOC	0.01	0.01
FUG-NH_3	Ammonia Piping Fugitives (6)	NH_3	1.32	5.76
FUG-NGAS	Natural Gas Fugitives (6)	VOC	0.01	0.03

Emission Sources - Maximum Allowable Emission Rates

(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
CH_2O - formaldehyde
NH_3 - ammonia
MSS - maintenance, startup, and shutdown emissions
(4) Planned maintenance, startup and shutdown (MSS) and transitional lb/hour emissions for all pollutants are authorized even if not specifically identified as MSS or transitional. During any clock hour that includes one or more minutes of planned MSS or transitional, 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 and TE, unless otherwise noted.
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: November 4, 2015

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX133

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 GHG 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 covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates
			TPY (4)
GT-11	Alstom CTG and 799 MMBtu/hr Duct Burners	CO_2	2,004,025
		CH_4	466.26
		N_2O	59.13
		CO_2e	2,024,241
GT-12	Alstom CTG and 799 MMBtu/hr Duct Burners	CO_2	2,004,025
		CH_4	466.26
		N_2O	59.13
		CO_2e	2,024,241
GT-21	Alstom CTG and 799 MMBtu/hr Duct Burners	CO_2	2,004,025
		CH_4	466.26
		N_2O	59.13
		CO_2e	2,024,241
GT-22	Alstom CTG and 799 MMBtu/hr Duct Burners	CO_2	2,004,025
		CH_4	466.26
		N_2O	59.13
		CO_2e	2,024,241
GT-31	Alstom CTG and 799 MMBtu/hr Duct Burners	CO_2	2,004,025
		CH_4	466.26
		N_2O	59.13
		CO_2e	2,024,241
GT-32	Alstom CTG and 799 MMBtu/hr Duct Burners	CO_2	2,004,025
		CH_4	466.26
		N_2O	59.13
		CO_2e	2,024,241
FWP1	Emergency Firewater Pump Engine 1	CO_2	22.83
		CH_4	0.01
		N_2O	0.1
		CO_2e	22.91
FWP-2	Emergency Firewater Pump Engine 2	CO_2	22.83
		CH_4	0.01
		N_2O	0.1
		CO_2e	22.91
FWP-3	Emergency Firewater Pump Engine 3	CO_2	22.83

Emission Sources - Maximum Allowable Emission Rates

		CH_4	0.01
		N_2O	0.1
		CO_2e	22.91
EG-1	Emergency Electrical Generator Engine 1	CO_2	85.33
		CH_4	0.01
		N_2O	0.01
		CO_2e	85.63
EG-2	Emergency Electrical Generator Engine 2	CO_2	85.33
		CH_4	0.01
		N_2O	0.01
		CO_2e	85.63
EG-3	Emergency Electrical Generator Engine 3	CO_2	85.33
		CH_4	0.01
		N_2O	0.01
		CO_2e	85.63
FUG-CH4	Fugitives: Methane from Natural Gas (5)	CO_2	0.01
		CH_4	1.14
		CO_2e	28.89
SF6-FUG	Fugitives: Sulfur Hexafluoride from Circuit Breakers (5)	SF_6	0.01
		CO_2e	237.72

(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
SF_6 - sulfur hexafluoride
CO_2e - carbon dioxide equivalents, based on the following Global Warming Potentials from 40 CFR Part 98, subpart A, Table A-1, effective January 1, 2015: CO_2 (1), CH_4 (25), N_2O (298), and SF_6 (22,800)
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. Annual emission limits include both normal and maintenance, startup, and shutdown (MSS) emissions.
(5) Fugitive emission rates are estimates and are enforceable through compliance with the applicable special conditions and permit application representations.

Date: November 4, 2015