Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 105810 and PSDTX1308

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)
Option 1				
CBY51	GE 7FA (5) Combined Cycle	NO_x	20.4	73.8
		NO_x (MSS)	42.0	-
		CO	24.8	44.9
		CO (MSS)	159.9	-
		VOC	4.4	11.7
		VOC (MSS)	34.6	-
		PM	20.2	70.3
		PM_{10}	20.2	70.3
		$PM_{2.5}$	20.2	70.3
		SO_2	3.9	14.2
		H_2SO_4	2.8	9.8
		NH_3	26.4	95.6

Emission Sources - Maximum Allowable Emission Rates

CBY51b	GE 7FA (5) Simple Cycle	NO_x	73.2	91.5
		NO_x (MSS)	74.5	
		CO	35.6	44.5
		CO (MSS)	164.2	-
		VOC	3.4	4.3
		VOC (MSS)	34.2	-
		PM	9.0	11.3
		PM_{10}	9.0	11.3
		$PM_{2.5}$	9.0	11.3
		SO_2	3.0	3.7
		H_2SO_4	0.2	0.3
CBY52	GE 7FA (5) Combined Cycle	NO_x	20.4	73.8
		NO_x (MSS)	42.0	-
		CO	24.8	44.9
		CO (MSS)	159.9	-
		VOC	4.4	11.7
		VOC (MSS)	34.6	-
		PM	20.2	70.3
		PM_{10}	20.2	70.3
		$PM_{2.5}$	20.2	70.3
		SO_2	3.9	14.2
		H_2SO_4	2.8	9.8
		NH_3	26.4	95.6
CBY52b	GE 7FA (5) Simple Cycle	NO_x	73.2	91.5
		NO_x (MSS)	74.5	-

Emission Sources - Maximum Allowable Emission Rates

		CO	35.6	44.5
		CO (MSS)	164.2	-
		VOC	3.4	4.3
		VOC (MSS)	34.2	-
		PM	9.0	11.3
		PM_{10}	9.0	11.3
		$PM_{2.5}$	9.0	11.3
		SO_2	3.0	3.7
		H_2SO_4	0.2	0.3
AUX-BLR	Auxiliary Boiler	NO_x	1.60	3.20
		CO	2.96	5.92
		VOC	0.43	0.86
		PM	0.60	1.19
		PM_{10}	0.60	1.19
		$PM_{2.5}$	0.60	1.19
		SO_2	0.06	0.11
CBY51, CBY51b, CBY52, CBY52b, and AUX-BLR	Annual Cap	NO_x	-	300.11
		CO	-	160.30
		VOC	-	23.48
		PM	-	140.60
		PM_{10}	-	140.60
		$PM_{2.5}$	-	140.60
		SO_2	-	30.10
		H_2SO_4	-	19.54
Option 2				

Emission Sources - Maximum Allowable Emission Rates

CBY51	Siemens F5 (5) Combined Cycle	NO_x	22.2	83.5
		NO_x (MSS)	39.0	-
		CO	27.0	50.9
		CO (MSS)	284.1	-
		VOC	4.9	11.8
		VOC (MSS)	16.1	-
		PM	21.7	72.6
		PM_{10}	21.7	72.6
		$PM_{2.5}$	21.7	72.6
		SO_2	4.2	15.8
		H_2SO_4	3.0	10.8
		NH_3	28.7	107.9
CBY51b	Siemens F5 (5) Simple Cycle	NO_x	78.7	98.3
		NO_x (MSS)	74.8	-
		CO	21.3	26.6
		CO (MSS)	280.5	-
		VOC	3.0	3.8
		VOC (MSS)	14.9	-
		PM	9.0	11.3
		PM_{10}	9.0	11.3
		$PM_{2.5}$	9.0	11.3
		SO_2	3.1	3.9
		H_2SO_4	0.3	0.3
CBY52	Siemens F5 (5) Combined Cycle	NO_x	22.2	83.5
		NO_x (MSS)	39.0	-

Emission Sources - Maximum Allowable Emission Rates

		CO	27.0	50.7
		CO (MSS)	284.1	-
		VOC	4.9	11.9
		VOC (MSS)	16.1	-
		PM	21.7	72.6
		PM_{10}	21.7	72.6
		$PM_{2.5}$	21.7	72.6
		SO_2	4.2	15.8
		NH_3	28.7	107.9
		H_2SO_4	3.0	10.9
CBY52b	Siemens F5 (5) Simple Cycle	NO_x	78.7	98.3
		NO_x (MSS)	74.8	-
		CO	21.3	26.6
		CO (MSS)	280.5	-
		VOC	3.0	3.8
		VOC (MSS)	14.9	-
		PM	9.0	11.3
		PM_{10}	9.0	11.3
		$PM_{2.5}$	9.0	11.3
		SO_2	3.1	3.9
		H_2SO_4	0.3	0.3
AUX-BLR	Auxiliary Boiler	NO_x	1.60	3.20
		CO	2.96	5.92
		VOC	0.43	0.86
		PM	0.60	1.19

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.60	1.19
		$PM_{2.5}$	0.60	1.19
		SO_2	0.06	0.11
CBY51, CBY51b, CBY52, CBY52b, and AUX-BLR	Annual Cap	NO_x	-	196.63
		CO	-	137.66
		VOC	-	23.52
		PM	-	144.42
		PM_{10}	-	144.42
		$PM_{2.5}$	-	144.42
		SO_2	-	34.15
		H_2SO_4	-	21.63
Option 3				
CBY51	MHI 501G (5) Combined Cycle	NO_x	24.8	86.9
		NO_x (MSS)	40.3	-
		CO	30.2	52.9
		CO (MSS)	282.6	-
		VOC	4.9	11.7
		VOC (MSS)	17.0	-
		PM	21.7	73.1
		PM_{10}	21.7	73.1
		$PM_{2.5}$	21.7	73.1
		SO_2	4.9	17.2
		H_2SO_4	3.5	11.7
		NH_3	32.1	112.6

Emission Sources - Maximum Allowable Emission Rates

CBY51b	MHI 501G (5) Simple Cycle	NO_x	92.7	115.9
		NO_x (MSS)	68.6	-
		CO	62.7	78.4
		CO (MSS)	296.1	-
		VOC	3.6	4.5
		VOC (MSS)	16.5	-
		PM	9.0	11.3
		PM_{10}	9.0	11.3
		$PM_{2.5}$	9.0	11.3
		SO_2	3.9	4.9
		H_2SO_4	0.3	0.4
CBY52	MHI 501G (5) Combined Cycle	NO_x	24.8	86.9
		NO_x (MSS)	40.3	-
		CO	30.2	52.9
		CO (MSS)	282.6	-
		VOC	4.9	11.7
		VOC (MSS)	17.0	-
		PM	21.7	73.1
		PM_{10}	21.7	73.1
		$PM_{2.5}$	21.7	73.1
		SO_2	4.9	17.2
		H_2SO_4	3.5	11.7
		NH_3	32.1	112.6
CBY52b	MHI 501G (5) Simple Cycle	NO_x	92.7	115.9
		NO_x (MSS)	68.6	-

Emission Sources - Maximum Allowable Emission Rates

		CO	62.7	78.4
		CO (MSS)	296.1	-
		VOC	3.6	4.5
		VOC (MSS)	16.5	-
		PM	9.0	11.3
		PM_{10}	9.0	11.3
		$PM_{2.5}$	9.0	11.3
		SO_2	4.9	4.9
		H_2SO_4	0.3	0.4
AUX-BLR	Auxiliary Boiler	NO_x	1.60	3.20
		CO	2.96	5.92
		VOC	0.43	0.86
		PM	0.60	1.19
		PM_{10}	0.60	1.19
		$PM_{2.5}$	0.60	1.19
		SO_2	0.06	0.11
CBY51, CBY51b, CBY52, CBY52b, and AUX-BLR	Annual Cap	NO_x	-	364.67
		CO	-	237.73
		VOC	-	23.60
		PM	-	146.15
		PM_{10}	-	146.15
		$PM_{2.5}$	-	146.15
		SO_2	-	36.06
		H_2SO_4	-	23.48
Ancillary Emissions				

Emission Sources - Maximum Allowable Emission Rates

CBY51-LOV	Turbine 1 Lube Oil Vent	PM_{10}	0.02	0.09
		$PM_{2.5}$	0.01	0.04
CBY52-LOV	Turbine 2 Lube Oil Vent	PM_{10}	0.02	0.09
		$PM_{2.5}$	0.01	0.04
CBYST1-LOV	Steam Turbine 1 Lube Oil Vent	PM_{10}	0.02	0.09
		$PM_{2.5}$	0.01	0.04
CBYST2-LOV	Steam Turbine 2 Lube Oil Vent	PM_{10}	0.02	0.09
		$PM_{2.5}$	0.01	0.04
C-TOWER1	Cooling Tower 1	PM	4.50	19.73
		PM_{10}	0.07	0.30
		$PM_{2.5}$	<0.01	0.01
C-TOWER2	Cooling Tower 2	PM	4.50	19.73
		PM_{10}	0.07	0.30
		$PM_{2.5}$	<0.01	0.01
FUG-NGAS	Natural Gas Fugitives (6)	VOC	0.17	0.74
FUG-SCR	SCR Piping Fugitives (6)	NH_3	0.02	0.10
FUG-MSS	Miscellaneous MSS Activities (6)	NO_x	<0.01	<0.01
		CO	<0.01	<0.01
		VOC	1.97	0.58
		PM	0.05	<0.01
		PM_{10}	0.02	<0.01
		$PM_{2.5}$	<0.01	<0.01
		SO_2	<0.01	<0.01
		NH_3	<0.01	<0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

Emission Sources - Maximum Allowable Emission Rates

(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
NH_3 - ammonia
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Planned maintenance, startup and shutdown (MSS) 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.
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: August 29, 2014