Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 81594 and PSDTX1091

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)	
			lbs/hour	TPY
Combined Cycle Operations				
NB8	CTG and DB HRSG No. 8 **(5)** Combined Cycle	NO_x	49.0	201.48
		NO_x (MSS)	270.0	
		CO	29.7	242.80
		CO (MSS)	1920.0	
		VOC	13.8	56.50
		VOC (MSS)	114.0	
		PM	36.8	104.24
		PM_{10}	36.8	104.24
		SO_2	18.1	6.13
		H_2SO_4	10.0	3.30
		NH_3	18.0	74.46
NB9	CTG and DB HRSG No. 9 **(5)** Combined Cycle	NO_x	49.0	201.48
		NO_x (MSS)	270.0	
		CO	29.7	242.80
		CO (MSS)	1920.0	
		VOC	13.8	56.50
		VOC (MSS)	114.0	
		PM	36.8	104.24
		PM_{10}	36.8	104.24

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		SO_2	18.1	6.13
		H_2SO_4	10.0	3.30
		NH_3	18.0	74.46
NB8 NB9	Annual Emission CTG and DB HRSG Combined	NO_x	-	402.96
		CO	-	324.50
		VOC	-	113.00
		PM	-	208.49
		PM_{10}	-	208.49
		SO_2	-	12.26
		H_2SO_4	-	6.60
		NH_3	-	148.92
AUXB	Auxiliary Boiler **(6)**	NO_x	1.94	1.94
		CO	2.00	2.00
		VOC	0.22	0.22
		PM	0.38	0.38
		PM_{10}	0.38	0.38
		SO_2	0.03	0.03
Simple Cycle Operations				
NB8A	CTG No. 8 **(5)** Simple Cycle	NO_x	63.00	-
		NO_x (MSS)	97.40	-
		CO	32.00	-
		CO (MSS)	187.10	-
		VOC	3.00	-
		VOC (MSS)	14.40	-
		PM	18.00	-

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		PM_{10}	18.00	-
		$PM_{2.5}$	18.00	-
		SO_2	13.10	-
		H_2SO_4	1.00	
NB9A	CTG No. 9 **(5)** Simple Cycle	NO_x	63.00	-
		NO_x (MSS)	97.40	-
		CO	32.00	-
		CO (MSS)	187.10	-
		VOC	3.00	-
		VOC (MSS)	14.40	-
		PM	18.00	-
		PM_{10}	18.00	-
		$PM_{2.5}$	18.00	-
		SO_2	13.10	-
		H_2SO_4	1.00	-
NB8A NB9A	CTG Nos. 8 and 9 Annual Emission - Simple Cycle	NO_x	-	69.88
		CO	-	63.02
		VOC	-	5.28
		PM	-	18.00
		PM_{10}	-	18.00
		$PM_{2.5}$	-	18.00
		SO_2	-	2.62
		H_2SO_4	-	0.20
FGH1	Fuel Gas Heater No.1	NO_x	0.65	0.36
		CO	0.67	0.37

Emission Sources - Maximum Allowable Emission Rates

		VOC	0.10	0.05
		PM	0.13	0.07
		PM_{10}	0.13	0.07
		$PM_{2.5}$	0.13	0.07
		SO_2	0.13	0.01
		H_2SO_4	0.01	<0.01
FGH2	Fuel Gas Heater No.2	NO_x	0.65	0.36
		CO	0.67	0.37
		VOC	0.10	0.05
		PM	0.13	0.07
		PM_{10}	0.13	0.07
		$PM_{2.5}$	0.13	0.07
		SO_2	0.13	0.01
		H_2SO_4	0.01	<0.01
Ancillary Facilities				
GEN1	Emergency Generator No. 1	NO_x	26.81	1.39
		CO	2.54	0.13
		VOC	0.60	0.03
		PM	0.25	0.01
		PM_{10}	0.02	0.01
		SO_2	0.33	0.02
FWP	Fire Water Pump No. 1	NO_x	1.79	0.09
		CO	1.51	0.08
		VOC	0.71	0.04
		PM	0.08	<0.01

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.08	<0.01
		SO_2	0.59	0.03
TK-DIESEL 1	Diesel Storage Tank No. 1	VOC	0.91	<0.01
TK1	Storage Tank No. 1	NaOH	0.09	<0.01
TK2	Storage Tank No. 2	H_2SO_4	<0.01	<0.01
TK3A	Storage Tank No. 3A	Trisodium phosphate	<0.01	<0.01
TK3B	Storage Tank No. 3B	Trisodium phosphate	<0.01	<0.01
TK4	Storage Tank No. 4	NH_4OH	0.48	0.07
TK5	Storage Tank No. 5A	Sodium bisulfate	<0.01	<0.01
TK6	Storage Tank No. 6	1-Hydroxyethane-1, 1-Diphosphonic Acid	0.02	<0.01
TOMV1	Turbine Oil Mist Vents	VOC	0.01	0.04
TOMV2	Turbine Oil Mist Vents	VOC	0.01	0.04
TOMV3	Turbine Oil Mist Vents	VOC	0.01	0.02
AMFUG	Aqueous Ammonia Handling and Fugitives (7)	NH_3	0.02	0.10
NGFUG	Natural Gas Fugitives (7)	VOC	0.13	0.56

(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) NO_x - total oxides of nitrogen
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
SO_2 - sulfur dioxide
H_2SO_4 - sulfuric acid
NaOH - sodium hydroxide
Na_3PO_4 - trisodium phosphate
$NaHSO_3$ - sodium bisulfite
NH_3 - ammonia
NH_4OH - ammonium hydroxide
MSS - maintenance, startup, and shutdown
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

Emission Sources - Maximum Allowable Emission Rates

(5) Planned MSS for all pollutants are authorized even if not specially identified as MSS. During any clock hour that includes one or minutes of planned MSS that pollutants maximum hour emission rate shall apply during that clock hour.
(6) EPN: AUXB is limited to 2000 hour of operation per year.
(7) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: July 6, 2021