Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 21587 and PSDTX807

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)
SJS1 (9)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	--	439.4
		CO	--	830.0
		PM/PM_{10}	--	50.9
		VOC	--	38.8
		SO_2	--	18.6
SJS2 (9)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	--	439.4
		CO	--	830.0
		PM/PM_{10}	--	50.9
		VOC	--	38.8
		SO_2	--	18.6
Case I: Turbines firing fuel oil and duct burners firing natural gas.				
SJS1 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	364.5	--
		CO	563.0	--
		PM/PM_{10}	19.5	--
		VOC	12.5	--
		SO_2	235.3	--
SJS2 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	364.5	--
		CO	563.0	--
		PM/PM_{10}	19.5	--
		VOC	12.5	--

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		SO_2	235.3	--
Case II: Turbines firing fuel oil and duct burners unfired.				
SJS1 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	320.0	--
		CO	401.0	--
		PM/PM_{10}	15.0	--
		VOC	5.5	--
		SO_2	235.0	--
SJS2 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	320.0	--
		CO	401.0	--
		PM/PM_{10}	15.0	--
		VOC	5.5	--
		SO_2	235.0	--
Case III: Turbines firing natural gas and duct burners unfired.				
SJS1 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	62.0	--
		CO	296.0	--
		PM/PM_{10}	7.0	--
		VOC	2.2	--
		SO_2	0.7	--
SJS2 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	62.0	--
		CO	296.0	--
		PM/PM_{10}	7.0	--
		VOC	2.2	--
		SO_2	0.7	--
Case IV: Turbines firing natural gas and duct burners firing natural gas.				
SJS1 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct	NO_x	106.5	--

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		CO	496.0	--
		PM/PM_{10}	11.5	--
		VOC	9.2	--
		SO_2	1.0	--
SJS2 (6)(7)(8)	80 MWe Gas Turbine-GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO_x	106.5	--
		CO	496.0	--
		PM/PM_{10}	11.5	--
		VOC	9.2	--
		SO_2	1.0	--
MSSFUG(10)	Miscellaneous Maintenance Activities	NO_x	<0.01	<0.01
		CO	<0.01	<0.01
		PM	1.06	0.42
		PM_{10}	1.06	0.42
		$PM_{2.5}$	1.06	0.42
		VOC	6.21	0.89

(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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
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
$PM_{2.5}$ total particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. Annual emissions are based on 70°F ambient temperature with125 hours of fuel oil firing and 8,635 hours of natural gas firing per year, with duct burners in continuous operation firing natural gas.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

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(6) Maximum hourly emissions are based on 20°F ambient temperature.
(7) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, during any clock hour that includes one or more minutes of planned MSS activities, the pollutant's hourly emission limits that apply during planned MSS activities shall apply during that clock hour.
(8) The tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
(9) The lb/hr emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
(10) MSSFUG emission rates apply to all fuel firing scenarios.

Date: _____