Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 107523, PSDTX1336, and N174M3

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)
COMBCAP	Combustion Unit Cap Includes HR15.101 DW37.101 BO10.103A BO10.103B (8)	NO_x	--	110.21
		SO_2	33.84	135.22
		NH_3	--	127.27
		H_2SO_4	--	41.41
COMBCAP2	Combustion Cap Includes HR15.101 BO10.103A BO10.103B (9)	CO	--	106.49
		VOC	--	6.26
		PM	--	17.14
		PM_{10}	--	17.14
		$PM_{2.5}$	--	17.14
HR15.101	Reactor Charge Heater (8)(9)	NO_x	9.74	21.34
		NO_x MSS (6)(10)	15.59	--
		CO	38.32	83.92
		VOC	0.97	4.27
		VOC MSS (6)(10)	1.95	--
		PM	5.85	15.90
		PM_{10}	5.85	15.90
		$PM_{2.5}$	5.85	15.90
		SO_2	25.45	111.48
		NH_3	2.20	9.65
		H_2SO_4	7.80	34.14
DW37.101	Waste Heat Boiler, Waste Heat Boiler Burner, HR15.103, Regeneration Air Heater, HR15.102, Regen Air Comp. Gas Turbine A,	NO_x	37.53	75.74
		NO_x MSS (6)(10)	67.50	--
		CO	87.84	178.83
		CO MSS (6)(10)	90.00	--

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		VOC	18.76	83.09
		VOC MSS (6)(10)	43.76	--
		PM	33.06	78.91
		PM_{10}	33.06	78.91
		$PM_{2.5}$	33.06	78.91
		SO_2	36.71	55.54
		NH_3	31.18	117.09
		H_2SO_4	11.24	34.61
GT26.101A	Turbine A Bypass Stack (7)	NO_x	43.51	1.47
		CO	152.98	0.79
		VOC	3.97	0.05
		PM	3.00	0.18
		PM_{10}	3.00	0.18
		$PM_{2.5}$	3.00	0.18
		SO_2	0.88	0.04
GT26.101B	Turbine B Bypass Stack (7)	NO_x	43.51	1.47
		CO	152.98	0.79
		VOC	3.97	0.05
		PM	3.00	0.18
		PM_{10}	3.00	0.18
		$PM_{2.5}$	3.00	0.18
		SO_2	0.88	0.04
BO10.103A	Auxiliary Boiler A (8)(9)	NO_x	4.31	--
		NO_x MSS (10)	10.50	--
		CO	31.89	--
		VOC	3.45	--
		PM	2.16	--
		PM_{10}	2.16	--
		$PM_{2.5}$	2.16	--

Emission Sources - Maximum Allowable Emission Rates

		SO_2	24.84	--
		NH_3	1.95	--
		H_2SO_4	7.61	--
BO10.103B	Auxiliary Boiler B (8)(9)	NO_x	4.31	--
		NO_x MSS (10)	10.50	--
		CO	31.89	--
		VOC	3.45	--
		PM	2.16	--
		PM_{10}	2.16	--
		$PM_{2.5}$	2.16	--
		SO_2	24.84	--
		NH_3	1.95	--
		H_2SO_4	7.61	--
BO10.103A BO10.103B	Auxiliary Boiler A Auxiliary Boiler B Annual Caps (8)(9)	NO_x	--	21.24
		CO	--	59.58
		VOC	--	10.77
		PM	--	6.73
		PM_{10}	--	6.73
		$PM_{2.5}$	--	6.73
		SO_2	--	7.87
		NH_3	--	5.87
		H_2SO_4	--	2.41
CT13.801	Cooling Tower (5)	PM	2.53	6.33
		PM_{10}	1.73	4.77
		$PM_{2.5}$	0.67	1.95
		VOC	2.81	6.16
SK25.801	Process Flare, Routine Hourly Rates	NO_x	22.62	--
		SO_2	0.54	--
		CO	117.33	--

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		VOC	10.31	--
	Process Flare, MSS (10) Hourly Rates	NO_x	144.57	--
		SO_2	0.78	--
		CO	754.01	--
		VOC	81.35	--
SK25.801	Process Flare Annual Rates	NO_x	--	27.24
		SO_2	--	0.81
		CO	--	142.37
		VOC	--	8.54
PM18.803	Fire Water Pump Engine	NO_x	2.53	0.07
		CO	4.01	0.10
		VOC	2.10	0.05
		PM	0.23	<0.01
		PM_{10}	0.23	<0.01
		$PM_{2.5}$	0.23	<0.01
		SO_2	0.01	<0.01
GEN001	PCR001 Emergency Generator Engine	NO_x	4.41	0.11
		CO	6.99	0.18
		VOC	3.66	0.10
		PM	0.40	0.01
		PM_{10}	0.40	0.01
		$PM_{2.5}$	0.40	0.01
		SO_2	0.01	<0.01
GEN002	PCR004 Emergency Generator Engine	NO_x	4.41	0.11
		CO	6.99	0.18
		VOC	3.66	0.10
		PM	0.40	0.01
		PM_{10}	0.40	0.01
		$PM_{2.5}$	0.40	0.01

Emission Sources - Maximum Allowable Emission Rates

		SO_2	0.01	<0.01
GEN003	Control Room Emergency Generator Engine	NO_x	2.75	0.07
		CO	4.37	0.11
		VOC	2.29	0.06
		PM	0.25	<0.01
		PM_{10}	0.25	<0.01
		$PM_{2.5}$	0.25	<0.01
		SO_2	0.01	<0.01
LOAD-PDH	Truck Loading Line Disconnect Losses	VOC	<0.01	<0.01
UNLD-PDH	Truck Unloading Line Disconnect Losses	VOC	0.01	<0.01
FUG-PDH	Process Fugitives (5)	VOC	3.47	15.19
FUG-NGAS	Nat. Gas Pipeline Fugitives (5)	VOC	0.14	0.61
FUG-SCR	SCR Ammonia Fugitives (5)	NH_3	0.01	0.06
MSS-PDH	Maintenance, Startup, Shutdown Cap	VOC	21.11	0.51
CATMSS1	Catalyst Blending Filter Vent	PM	0.02	<0.01
		PM_{10}	0.02	<0.01
		$PM_{2.5}$	0.02	<0.01
CATMSS2	Catalyst Loading Fugitive	PM	0.03	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	0.01	<0.01
CATMSS3	Catalyst Loading Filter Vents	PM	0.01	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	0.01	<0.01
CATMSS4	Catalyst Unloading Filter Vents	PM	0.04	0.01
		PM_{10}	0.04	0.01
		$PM_{2.5}$	0.04	0.01
CATMSS5	Catalyst Separation Filter Vent	PM	0.02	<0.01

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		PM_{10}	0.02	<0.01
		$PM_{2.5}$	0.02	<0.01
FL20.103	Catalyst De-dusting Filter Vent	PM	3.40	0.01
		PM_{10}	0.99	<0.01
		$PM_{2.5}$	0.55	<0.01
WWT	Wastewater Treatment Facilities	VOC	0.22	0.95
SV19.901	Wastewater Equalization Tank	VOC	0.01	0.04
SV19.610	Sludge Holding Tank	VOC	0.01	0.04
SV19.842	FWP Diesel Tote	VOC	0.01	0.04
SV19.841	Methanol Tote	VOC	0.01	0.04

(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
NH_3 - ammonia
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) Annual MSS emissions are included in the annual routine allowable rate for this EPN.
(7) Annual emissions are sub-caps of the annual allowable rate for EPN DW37.101.
(8) The annual combined NO_x, SO_2, NH_3, H_2SO_4 emissions from Emission Point Nos. HR15.101, DW37.101, BO10.103A, BO10.103B are limited per the annual emissions CAP for each pollutant listed.
(9) The annual combined CO, VOC, PM, PM_{10}, and $PM_{2.5}$ emissions from Emission Point Nos. HR15.101, BO10.103A, and BO10.103B are limited per the annual emissions CAP for each pollutant listed.
(10) Contaminants for this EPN not specifically listed in MSS are limited to their respective routine short-term (lb/hr) emission rates.

Date: xxxx