Emission Sources - Maximum Allowable Emission Rates

Permit Number 6580 and PSDTX151M2

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)
SF-1	Secondary Filter	PM_{10}	2.40	10.50
SF-2	Secondary Filter	PM_{10}	1.50	6.60
SF-3	Secondary Filter	PM_{10}	1.40	6.10
DF-1A	Dryer Filter Unit No. 1	PM_{10}	0.10	0.20
DF-1B	Dryer Filter Unit No. 1	PM_{10}	0.10	0.20
DF-2	Dryer Filter Units Nos. 2 & 3	PM_{10}	0.20	0.80
7A	Dryer Stack Units Nos. 1 & 2	NO_x	41.60	182.30
		CO	739.00	3237.00
		PM_{10}	25.00	109.50
		SO_2	815.20	3175.10
		H_2S	3.60	14.00
		C_2H_2	8.50	37.20
		COS	1.40	5.40
		CS_2	5.00	19.40
12A	Dryer Stack Units No. 3	NO_x	20.00	87.60
		CO	420.00	1840.00
		PM_{10}	11.80	51.90
		SO_2	333.40	1297.90
		H_2S	1.50	5.70
		C_2H_2	4.00	17.50
		COS	0.60	2.20
		CS_2	2.00	7.90
13A	Incinerator + HRSG	NO_x	132.00	175.70
		CO	501.00	2194.40

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		PM	17.76	74.42
		PM_{10}	14.57	60.43
		$PM_{2.5}$	13.82	57.14
		SO_2	2201.60	8571.70
		H_2SO_4	12.70	52.21
		H_2S	8.70	34.00
		C_2H_2	21.60	94.60
		COS	0.70	2.80
		CS_2	4.60	17.90
		NH_3	2.39	9.29
BHU1RRN	Unit 1 Rerun Bag Filter	PM_{10}	0.26	1.12
		$PM_{2.5}$	0.26	1.12
BHU2SHIP	Unit 2 Rerun Bag Filter	PM_{10}	0.18	0.81
		$PM_{2.5}$	0.18	0.81
BHVACBAG	Vacuum Bag Filter	PM_{10}	0.03	0.15
		$PM_{2.5}$	0.03	0.15
OIL SAMPLE	Carbon Black Oil Feedstock Sampling	VOC	0.01	0.01
BLACK SAMPLE	In-situ Carbon Black Sampling	PM	0.02	0.02
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
SCR FUG	SCR Fugitives (6)	NH_3	0.19	0.84
Maintenance, Startup, and Shutdown Emissions				
Flare-1	Flare 1 (5)	NO_x	8.30	3.30
		CO	103.30	40.90
		PM_{10}	1.90	0.70
		SO_2	595.00	236.00
		H_2S	1.50	0.60
		C_2H_2	5.70	2.30
		COS	0.51	0.20

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		CS_2	1.50	0.60
Flare-2	Flare 2 (5)	NO_x	6.70	2.70
		CO	78.30	31.00
		PM_{10}	1.40	0.60
		SO_2	477.00	189.00
		H_2S	1.20	0.50
		C_2H_2	4.10	1.60
		COS	0.50	0.20
		CS_2	1.20	0.50
Flare-3	Flare 3 (5)	NO_x	5.60	2.20
		CO	69.30	27.40
		PM_{10}	1.20	0.50
		SO_2	449.00	178.00
		H_2S	1.20	0.50
		C_2H_2	2.70	1.10
		COS	0.40	0.20
		CS_2	1.20	0.50
13A	Incinerator Stack MSS	NO_x	10.00	0.35
		CO	8.40	0.29
		VOC	0.55	0.02
		PM	0.93	0.04
		PM_{10}	0.76	0.03
		$PM_{2.5}$	0.76	0.03
		SO_2	0.06	0.01
7A/12A	MSS Cap for Dryers 7A & 12A	NO_x	0.21	0.01
		CO	0.20	0.01
		VOC	0.02	0.01
		PM_{10}	0.02	0.01
		$PM_{2.5}$	0.02	0.01

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		SO_2	0.01	0.01
RVS	Cap for the 13 Reactor Vents	NO_x	2.50	8.31
		CO	2.10	6.98
		VOC	0.14	0.46
		PM_{10}	0.192	0.63
		$PM_{2.5}$	0.192	0.63
		SO_2	0.02	0.05
CanMSS	Solvent/Aerosol Can Usage >64 oz./day	VOC	3.38	1.80
ORIFICE	Orifice Changeout	VOC	0.01	0.02
REFRACTORY	Recasting furnace refractory	PM	0.03	0.01
		PM_{10}	0.02	0.01
		$PM_{2.5}$	0.02	0.01

(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
H_2S - hydrogen sulfide
C_2H_2 - acetylene (ethyne)
COS - carbonyl sulfide
CS_2 - carbon disulfide
NH_3 - ammonia
MSS - maintenance, startup, and shutdown
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(5) Only the MSS emissions due to the boiler or steam turbine (or associated equipment and ductwork) which is less than or equal to these flare maximum allowable emission rates are authorized. MSS emissions from the flares due to the failure of a process, process equipment, or pollution control equipment to operate in a normal or usual manner are not authorized by this permit. **(8/11)**
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: September 22, 2020