Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 70898 and PSDTX410M3

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 Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
BA-1100	West Pre-coking Heater	CO	1.22	5.18
		NO_X	2.05	8.69
		PM	0.25	1.04
		PM_{10}	0.25	1.04
		$PM_{2.5}$	0.25	1.04
		SO_2	0.68	2.88
		VOC	0.18	0.76
BA-2601	Pre-Filtration Heater	CO	1.76	6.73
		NO_X	1.14	4.37
		PM	0.33	1.25
		PM_{10}	0.33	1.25
		$PM_{2.5}$	0.33	1.25
		SO_2	0.90	3.45
		VOC	0.24	0.91
BF-1622	Auxiliary Boiler	CO	1.26	4.33
		NO_X	1.24	4.27
		PM	0.25	0.87
		PM_{10}	0.25	0.87
		$PM_{2.5}$	0.25	0.87
		SO_2	0.70	2.41
		VOC	0.18	0.63
BK-1401BX	Rotary Kiln Auxiliary Drive	CO	0.23	1.01
		NO_X	1.07	4.68
		PM	0.08	0.33
		PM_{10}	0.08	0.33

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.08	0.33
		SO_2	0.07	0.31
		VOC	0.09	0.38
CA-1101X	Heaters BA-1001, BA-1101, & BA-1202 Common Stack (6)	CO	4.58	17.05
		NO_X **(PSD)**	8.30	30.93
		PM	0.92	3.44
		PM_{10}	0.92	3.44
		$PM_{2.5}$	0.92	3.44
		SO_2 **(PSD)**	2.54	9.48
		VOC	0.67	2.49
CA-1102	Heaters BA-1102 & BA-1103 Common Stack	CO	2.37	8.69
		NO_X	3.70	13.62
		PM	0.66	2.43
		PM_{10}	0.66	2.43
		$PM_{2.5}$	0.66	2.43
		SO_2	1.81	6.71
		VOC	0.48	1.76
CA-1621X	Calciner Kiln Common Stack (6)	CO	50.49	61.94
		NO_X **(PSD)**	86.44	292.99
		PM	8.23	36.04
		PM_{10} **(PSD)**	2.88	12.61
		$PM_{2.5}$	0.44	1.91
		SO_2 **(PSD)**	280.64	834.41

Emission Sources - Maximum Allowable Emission Rates

		VOC	1.05	2.31
CB-1701	Plant Flare (6)	CO	186.66	118.67
		H_2S	<0.01	<0.01
		NO_X **(PSD)**	25.86	16.52
		SO_2 **(PSD)**	10.95	6.97
		VOC	89.15	56.65
CB-1750	Naphtha Barge Dock Flare	CO	6.70	1.08
		H_2S	0.09	<0.01
		NO_X	1.96	0.49
		SO_2	8.91	0.38
		VOC	10.95	0.40
DC-1101X	Coke Drum De-Heading	VOC	57.00	13.94
EF-1620	South Cooling Tower (5)	PM	2.85	12.48
		PM_{10}	1.24	5.45
		$PM_{2.5}$	0.01	0.02
		VOC	<0.01	0.01
EF-1621	North Cooling Tower (5)	PM	11.74	51.43
		PM_{10}	5.12	22.44
		$PM_{2.5}$	0.02	0.10
		VOC	0.01	0.03
EK-1401BK	Cooler Auxiliary Diesel Drive	CO	0.04	0.17
		NO_X	0.18	0.77
		PM	0.01	0.05
		PM_{10}	0.01	0.05
		$PM_{2.5}$	0.01	0.05
		SO_2	0.01	0.05
		VOC	0.01	0.06
FA-1401	Dedusting Oil Tank	VOC	<0.01	<0.01

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FB-1103	Bulk Antifoam Tank	VOC	0.16	0.09
FB-1401	Sour Water Tank	H_2S	<0.01	<0.01
		VOC	0.02	<0.01
FB-1501	Feedstock Tank 1501	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1502	Feedstock Tank 1502	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1503	Feedstock Tank 1503	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1504	Feedstock Tank 1504	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1505	Feedstock Blend Tank 1505	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
FB-1506	Feedstock Blend Tank 1506	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
FB-1507	Naphtha Tank 1507	H_2S	<0.01	0.01
		VOC	0.19	0.85
FB-1508	Feedstock Tank 1508	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1509	Slop Oil Tank 1509	H_2S	<0.01	0.01
		VOC	0.29	1.25
FB-1510	Feedstock Tank 1510	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1511	Feedstock Tank 1511	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1512	Gas Oil Tank 1512	H_2S	<0.01	<0.01
		VOC	0.04	0.01
FB-1603X	Firewater Pump Diesel Tank	VOC	0.01	<0.01
FB-1620	North Cooling Tower Sulfuric	H_2SO_4	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

FB-1401	Sour Water Tank	H_2S	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

		VOC	0.02	<0.01
FB-1501	Feedstock Tank 1501	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1502	Feedstock Tank 1502	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1503	Feedstock Tank 1503	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1504	Feedstock Tank 1504	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1505	Feedstock Blend Tank 1505	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
FB-1506	Feedstock Blend Tank 1506	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
FB-1507	Naphtha Tank 1507	H_2S	<0.01	0.01
		VOC	0.19	0.85
FB-1508	Feedstock Tank 1508	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1509	Slop Oil Tank 1509	H_2S	<0.01	0.01
		VOC	0.29	1.25
FB-1510	Feedstock Tank 1510	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1511	Feedstock Tank 1511	H_2S	<0.01	(7)
		VOC	<0.01	(7)
FB-1512	Gas Oil Tank 1512	H_2S	<0.01	<0.01
		VOC	0.04	0.01
FB-1603X	Firewater Pump Diesel Tank	VOC	0.01	<0.01
FB-1620	North Cooling Tower Sulfuric Acid Storage Tank	H_2SO_4	<0.01	<0.01
FB-1621	North Cooling Tower Hydrochloric Acid Storage Tank	HCl	0.02	<0.01
FB-1622	Emergency Generator Diesel	VOC	0.02	<0.01

Emission Sources - Maximum Allowable Emission Rates

	Tank			
FB-1670	Gasoline Tank	VOC	16.85	0.38

Emission Sources - Maximum Allowable Emission Rates

FB-1671	Diesel Tank	VOC	0.04	<0.01
FB-TKFM	Feedstock Tank Farm Annual Emissions Cap **(7)**	H_2S	**--**	<0.01
		VOC	**--**	0.08
FD-1361	Barge Loading Dust Collector	PM	0.82	3.28
		PM_{10}	0.29	1.15
		$PM_{2.5}$	0.04	0.17
FUG-PM-1A	Green Coke Handling and Storage (5)	PM	6.32	8.15
		PM_{10}	2.99	3.85
		$PM_{2.5}$	0.54	0.74
FUG-PM-1B	Green Coke Pad	PM	0.55	2.41
		PM_{10}	0.28	1.20
		$PM_{2.5}$	0.28	1.20
FUG-PM-2A	Cooler/Emergency Storage Silo	PM	1.73	2.01
		PM_{10}	0.82	0.95
		$PM_{2.5}$	0.15	0.17
FUG-PM-2B	Calcined Coke Silo Conveyors	PM	1.33	3.22
		PM_{10}	0.63	1.53
		$PM_{2.5}$	0.14	0.27
FUG-PM-2C	Calcined Coke Discharging Conveyor	PM	0.13	0.01
		PM_{10}	0.06	<0.01
		$PM_{2.5}$	0.06	<0.01
FUG-PM-2D	Calcined Coke Truck and Railcar Loading	PM	0.51	0.93
		PM_{10}	0.24	0.44
		$PM_{2.5}$	0.05	0.09
FUG-PM-2E	Calcined Coke Barge Dock	PM	0.10	0.13
		PM_{10}	0.05	0.06
		$PM_{2.5}$	0.01	0.02
FUG-PM-2F	Calcined Coke West Bag Loading Station	PM	0.07	0.04

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.03	0.02
		$PM_{2.5}$	0.01	0.01
FUG-VOC-1	Equipment Fugitives (5)	H_2S	<0.01	0.01
		VOC	8.67	37.98
FUG-VOC-2	Wastewater Treatment Station (5)	VOC	0.63	2.91
FUG-VOC-3	Green Coke Pit	CO	0.01	0.01
		H_2S	0.25	0.06
		VOC	0.03	0.01
FRAC-1	Mott Filter Frac Tank 1	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
FRAC-2	Mott Filter Frac Tank 2	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
FRAC-3	Mott Filter Frac Tank 3	H_2S	<0.01	<0.01
		VOC	<0.01	<0.01
GA-1614S	Firewater Pump Diesel Emergency Engine	CO	1.98	0.04
		NO_X	9.18	0.18
		PM	0.65	0.01
		PM_{10}	0.65	0.01
		$PM_{2.5}$	0.65	0.01
		SO_2	0.60	0.01
		VOC	0.75	0.01
GE-1622	Emergency Generator (8)	CO	9.89	0.99
		NO_X	37.23	3.72
		PM	1.16	0.12
		PM_{10}	0.67	0.07
		$PM_{2.5}$	0.65	0.06
		SO_2	0.59	0.06
		VOC	0.95	0.10

Emission Sources - Maximum Allowable Emission Rates

PA-1504	Naphtha Truck Loading	H_2S	0.02	<0.01
		VOC	2.43	0.06
PA-1505A/B	Gas Oil Barge Dock	H_2S	<0.01	<0.01
		VOC	0.04	<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)
- CO - carbon monoxide
- HCl - hydrogen chloride
- H_2S - hydrogen sulfide
- H_2SO_4 - sulfuric acid
- NO_X - total oxides of nitrogen
- 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
- SO_2 - sulfur dioxide
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

(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) PSD-TX-410M3 - Emission sources for NO_X, SO_2, and PM.
(7) Total annual H_2S and VOC emissions from the feedstock tanks identified as FB-1501, FB-1502, FB-1503, FB-1504, FB-1508, FB-1510, and FB-1511 may not exceed the annual rates for EPN FB-TKFM.
(8) This source is being listed for reference only. It will remain under its Permit-By-Rule and/or Standard Permit.

Date: November 13, 2020