Emission Sources - Maximum Allowable Emission Rates

Permit Number 133873 and PSDTX463

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)
2	Unit 1 Exhaust Bag Filter Stack	SO_2	48.91	173.86
		H_2S	0.10	0.35
		CS_2	0.13	0.47
		COS	0.02	0.07
		CO	12.09	50.13
		HCN	0.02	0.09
		VOC	0.32	1.34
		NO_x	6.35	26.22
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.74	3.22
		$PM_{2.5}$	0.74	3.22
4	Pellet Dryer Firebox Stack	SO_2	16.30	57.95
		H_2S	0.03	0.12
		CS_2	0.04	0.16
		COS	0.01	0.02
		CO	4.03	16.71
		HCN	0.01	0.03
		VOC	0.11	0.45
		NO_x	2.12	8.74
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.21	1.03
		$PM_{2.5}$	0.21	1.03

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6	Unit 2 Exhaust Bag Filter Stack	SO_2	48.91	173.86
		H_2S	0.10	0.35
		CS_2	0.13	0.47
		COS	0.02	0.07
		CO	12.09	50.13
		HCN	0.02	0.09
		VOC	0.32	1.34
		NO_x	6.35	26.22
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.74	3.22
		$PM_{2.5}$	0.74	3.22
9	Unit 3 Exhaust Bag Filter Stack	SO_2	48.91	173.86
		H_2S	0.10	0.35
		CS_2	0.13	0.47
		COS	0.02	0.07
		CO	12.09	50.13
		HCN	0.02	0.09
		VOC	0.32	1.34
		NO_x	6.35	26.22
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.74	3.22
		$PM_{2.5}$	0.74	3.22
21, 23 and 24	Flare No 1 – Unit 1 and Unit 2 Flare No 2 – Unit 3 Waste Gas Boiler	SO_2	---	2391.15
		H_2S	---	4.89
		CS_2	---	6.42
		COS	---	1.00
		CO	---	751.02
		HCN	---	1.25
		VOC	---	18.57

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		NO_x	---	374.15
		NH_3	---	0.01
		PM/PM_{10}	---	51.87
		$PM_{2.5}$	---	51.87
21	Flare No 1 – Unit 1 and Unit 2	SO_2	377.06	---
		H_2S	1.54	---
		CS_2	2.07	---
		COS	0.32	---
		CO	211.14	---
		HCN	0.35	---
		VOC	5.03	---
		NO_x	27.67	---
		NH_3	<0.01	---
		PM/PM_{10}	5.42	---
		$PM_{2.5}$	5.42	---
23	Flare No 2 – Unit 3	SO_2	269.66	---
		H_2S	1.13	---
		CS_2	1.42	---
		COS	0.22	---
		CO	146.10	---
		HCN	0.24	---
		VOC	3.64	---
		NO_x	19.15	---
		NH_3	<0.01	---
		PM/PM_{10}	3.87	---
		$PM_{2.5}$	3.87	---
24	Waste Gas Boiler	SO_2	652.44	---
		H_2S	1.33	---
		CS_2	1.75	---

Emission Sources - Maximum Allowable Emission Rates

		COS	0.27	---
		CO	175.17	---
		HCN	0.29	---
		VOC	4.34	---
		NO_x	112.70	---
		NH_3	<0.01	---
		PM/PM_{10}	10.74	---
		$PM_{2.5}$	10.74	---
15a	Large Shipping Dock Cleanup Bag Filter (CUBF)	PM/PM_{10}	0.03	0.08
		$PM_{2.5}$	0.02	0.05
15b	Small Shipping Dock Cleanup Bag Filter	PM/PM_{10}	0.03	0.08
		$PM_{2.5}$	0.02	0.05
25	Unit No. 1 Black Cooler Bag Filter (BCBF)	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
26	Unit No 1 Cleanup Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
27	Unit No. 2 Black Cooler Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
28	Unit No. 2 Cleanup Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
29	Unit No. 3 Black Cooler Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
30	Unit No. 3 Product Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
FUG1	Product Handling Fugitives No. 1	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FUG2	Product Handling Fugitives No. 2	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01

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PTK1	Product Storage Tank No. 1	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK2	Product Storage Tank No. 2	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK3	Product Storage Tank No. 3	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK4	Product Storage Tank No. 4	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK5	Product Storage Tank No. 5	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK6	Product Storage Tank No. 6	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK6b	Pulling Tank	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK7	Product Storage Tank No. 7	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK800	Product Storage Tank No. 800	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK9	Burquist Tank	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
GPPTKS	All Product Storage Tanks	PM/PM_{10}	---	<0.01
		$PM_{2.5}$	---	<0.01
LABSMP	Lab Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
SHIPSMP	Product Shipping Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
RSMP	Reactor Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FANSMP	Fan Sampling	PM/PM_{10}	<0.01	<0.01

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		$PM_{2.5}$	<0.01	<0.01
FEEDSMP	Feedstock Sampling	VOC	<0.01	<0.01
FUG3	Equipment Leak Fugitives	VOC	1.10	8.30
1 (5)	Unit 1 Bypass Stack	NO_x	0.52	---
		CO	0.44	---
		VOC	0.03	---
		PM/PM_{10}	0.04	---
		$PM_{2.5}$	0.04	---
		SO_2	<0.01	---
5 (5)	Unit 2 Bypass Stack	NO_x	0.52	---
		CO	0.44	---
		VOC	0.03	---
		PM/PM_{10}	0.04	---
		$PM_{2.5}$	0.04	---
		SO_2	<0.01	---
8 (5)	Unit 3 Bypass Stack	NO_x	0.52	---
		CO	0.44	---
		VOC	0.03	---
		PM/PM_{10}	0.04	---
		$PM_{2.5}$	0.04	---
		SO_2	<0.01	---
1, 5, 8 (5)	Unit 1, Unit 2 and Unit 3 Bypass Stacks	NO_x	---	0.38
		CO	---	0.32
		VOC	---	0.02
		PM/PM_{10}	---	0.03
		$PM_{2.5}$	---	0.03
		SO_2	---	<0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

Emission Sources - Maximum Allowable Emission Rates

(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
- H_2S - hydrogen sulfide
- CS_2 - carbon disulfide
- COS - carbonyl sulfide
- HCN - hydrogen cyanide
- NH_3 - ammonia
- PM - total particulate matter, suspended in the atmosphere, including PM/PM10 and $PM_{2.5}$, as represented
- PM/PM10 - 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
- HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emissions from reactor startup.

Date: February 16, 2016