Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 19200 and PSDTX1237

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)
1018/1067	Olefins I and II Flares (6)	CO	13.99	40.69
		NO_x	2.74	7.99
		SO_2	0.01	0.06
		VOC	10.39	15.41
B-242	Co-Catalyst Area Dip Pot	VOC	0.03	0.01
B-292A	Peroxide Dip Pot	VOC	0.05	0.01
B-292B	Peroxide Dip Pot	VOC	0.05	0.01
B-360	Pellet Buffer Vessel	PM	0.01	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
B-406	Catalyst Slurry Prep System Dip Pot	VOC	0.05	0.01
B-460	Pellet Buffer Vessel	PM	0.01	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
B-560	Pellet Buffer Vessel	PM	0.01	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
B-760	Pellet Buffer Vessel	PM	0.01	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-343	Powder Vent Gas Filter	VOC	0.01	0.01
		PM	0.04	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-346	Additive Feed Conveying Gas Filter	VOC	0.01	0.01
		PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-367	Pellet Water Pre-separator Sieve	PM	0.03	0.14

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-368	Classifier	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-387A	Silos Cyclone Separator, Train No. 1	PM	0.40	1.06
		PM_{10}	0.08	0.21
		$PM_{2.5}$	0.07	0.19
F-443	Powder Vent Gas Filter	VOC	0.01	0.01
		PM	0.04	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-446	Additive Feed Conveying Gas Filter	VOC	0.01	0.01
		PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-467	Pellet Water Pre-separator Sieve	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-468	Classifier	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-487A	Silos Cyclone Separator, Train No. 2	PM	0.40	1.06
		PM_{10}	0.08	0.21
		$PM_{2.5}$	0.07	0.19
F-541	500 Line-Off Spec Silo Bag Filter	PM	0.20	0.86
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.04	0.16
F-543	Powder Vent Gas Filter	VOC	0.01	0.01
		PM	0.04	0.06
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-546	Additive Feed Conveying Gas Filter	VOC	0.01	0.01
		PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-567	Pellet Water Pre-separator Sieve	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-568	Classifier	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-575	300/400 Line - Off Spec Silo Bag Filter	PM	0.59	2.29
		PM_{10}	0.12	0.46
		$PM_{2.5}$	0.11	0.41
F-587A	Silos Cyclone Separator, Train No. 3	PM	0.40	1.06
		PM_{10}	0.08	0.21
		$PM_{2.5}$	0.07	0.19
F-705	Auto Packer Cyclone	PM	0.14	0.59
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.02	0.11
F-706A	Truck Silo Cyclone	PM	0.14	0.59
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.02	0.11
F-706B	Auto Packer Cyclone	PM	0.16	0.69
		PM_{10}	0.03	0.14
		$PM_{2.5}$	0.03	0.12
F-711A	Hopper Silo Cyclone, Train No. 1	PM	0.14	0.59
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.02	0.11
F-711B	PP1 Railcar Vacuum Cleaning System	PM	0.14	0.59
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.02	0.11
F-711G		PM	0.40	1.59

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
	Streamer Remover Bag Filter, Train No. 4	PM_{10}	0.08	0.32
		$PM_{2.5}$	0.07	0.29
F-741	700 Line Off Spec Silo Bag Filter	PM	0.12	0.48
		PM_{10}	0.02	0.10
		$PM_{2.5}$	0.02	0.09
F-743	Additive Vent Gas Filter	VOC	0.01	0.01
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-743A	Powder Vent Bag Filter	VOC	0.01	0.01
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-746	Additive Feed Conveying Gas Filter	VOC	0.01	0.01
		PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-747 A	Bag Dumping Unit	PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-747 B	Bag Dumping Unit	PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-747 C	Bag Dumping Unit	PM	0.02	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-767	Pellet Water Pre-separator Sieve	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02
F-768	Classifier	PM	0.03	0.14
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-781A	Product Silo Cyclone Train No. 1	PM	0.38	1.64
		PM_{10}	0.08	0.33
		$PM_{2.5}$	0.07	0.30
F-781B	Product Silo Cyclone Train No. 2	PM	0.38	1.64
		PM_{10}	0.08	0.33
		$PM_{2.5}$	0.07	0.30
F-781C	Product Silo Cyclone Train No. 3	PM	0.38	1.64
		PM_{10}	0.08	0.33
		$PM_{2.5}$	0.07	0.30
F-787	Silo Air Filters Train No. 4	PM	0.48	1.87
		PM_{10}	0.10	0.37
		$PM_{2.5}$	0.09	0.34
F-787A	Silos Cyclone Separator, Train No. 4	PM	0.40	1.06
		PM_{10}	0.08	0.21
		$PM_{2.5}$	0.07	0.19
F-875	B Train Loading Station Cyclone Separator	PM	0.30	0.61
		PM_{10}	0.06	0.12
		$PM_{2.5}$	0.05	0.11
F-902	Filter Receiver	PM	0.03	0.07
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
F-975	C Train Loading Station Cyclone Separator	PM	0.30	0.61
		PM_{10}	0.06	0.12
		$PM_{2.5}$	0.05	0.11
F-981	Product Silo Air Cyclone Train No. 4	PM	1.01	3.98
		PM_{10}	0.20	0.80
		$PM_{2.5}$	0.18	0.72
PO-CT	Cooling Tower	VOC	1.32	5.79
		PM	0.55	2.40
		PM_{10}	0.20	0.87
		$PM_{2.5}$	0.01	0.01
		Chlorine compounds	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PP1-300	Downstream Pellet Handling PP-1, Train No. 1 (7)	VOC	2.75	3.03
PP1-400	Downstream Pellet Handling PP-1, Train No. 2 (8)	VOC	2.88	3.14
PP1-500	Downstream Pellet Handling PP-1, Train No. 3 (9)	VOC	2.39	3.16
PP1-700	Downstream Pellet Handling PP-1, Train No. 4 (10)	VOC	1.06	2.96
PP1-CT	Cooling Tower	VOC	0.44	1.93
		PM	0.18	0.80
		PM_{10}	0.07	0.29
		$PM_{2.5}$	0.01	0.01
		Chlorine compounds	0.01	0.01
PP1-FUG	Fugitives PP-1 Unit (5)	VOC	13.19	57.76
		PM	0.05	0.27
		PM_{10}	0.05	0.27
		$PM_{2.5}$	0.05	0.27
		Cl_2	0.01	0.02
T-367	Dryer Train No. 1	PM	0.33	1.21
		PM_{10}	0.07	0.24
		$PM_{2.5}$	0.06	0.22
T-467	Dryer Train No. 2	PM	0.45	1.89
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.08	0.34
T-567	Dryer Train No. 3	PM	0.33	1.21
		PM_{10}	0.07	0.24
		$PM_{2.5}$	0.06	0.22
T-767	Dryer Train No. 4	PM	0.41	1.76
		PM_{10}	0.08	0.35
		$PM_{2.5}$	0.07	0.32
Planned Maintenance, Startup and Shutdown (MSS)				
PP1-MAINT	MSS to Atmosphere	VOC	102.27	1.81
		PM	3.19	0.42
		PM_{10}	3.19	0.42
		$PM_{2.5}$	3.19	0.42

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1018/1067/PP1-TEMP (11)	Olefins I and II Flares MSS	CO	513.54	26.27
		NO_x	71.24	3.55
		VOC	949.97	39.05

(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
Cl_2 - chlorine
Chlorine compounds - hypochlorous acid and hydrogen chloride
(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) PP1 vents shall all be routed to one flare or the other.
(7) Total VOC emissions from the following emissions points: B-360, F-367, F-368, F-387A, F-575, F-705, F-706A, F-706B, F-781A, F-711A, F-711G, F-711B, F-975, and T-367.
(8) Total VOC emissions from the following emissions points: B-460, F-467, F-468, F-487A, F-575, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-781B, F-975, and T-467.
(9) Total VOC emissions from the following emissions points: B-560, F-541, F-567, F-568, F-587A, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-781C, F-975, and T-567.
(10) Total VOC emissions from the following emissions points: B-760, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-741, F-767, F-768, F-787, F-787A, F-975, F-981, and T-767.
(11) The Olefins I and II Flares MSS emissions include emissions from the Olefins I Flare (EPN 1018) Olefins II Flare (EPN 1067) and portable flare (EPN PP1-TEMP).

Date: June 17, 2020