Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 4437A, PSDTX808, and N014M2

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)
1000	Catalyst Activator 1 Main Burner (9)	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
		SO2	<0.01	---
		NOx	0.67	---
		CO	0.56	---
		VOC	0.04	---
83	Catalyst Activator 2 Main Burner (9)	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
		SO_2	<0.01	---
		NO_x	0.67	---
		CO	0.56	---
		VOC	0.04	---
86	Catalyst Activator 3 Main Burner (9)	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
		SO_2	<0.01	---
		NO_x	0.67	---
		CO	0.56	---
		VOC	0.04	---
146	Catalyst Activator 4 Main Burner (9)	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
		SO_2	<0.01	---
		NO_x	0.67	---
		CO	0.56	---
		VOC	0.04	---

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170	Catalyst Activator 5 Main Burner (9)	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
		SO_2	<0.01	---
		NO_x	0.67	---
		CO	0.56	---
		VOC	0.04	---
1000, 83, 86, 146, and 170	Catalyst Activator Burners 1-5 (9)	PM	---	0.94
		PM_{10}	---	0.94
		$PM_{2.5}$	---	0.94
		SO_2	---	0.07
		NO_x	---	12.34
		CO	---	10.37
		VOC	---	0.68
146	Catalyst Activator 4	VOC	0.04	---
		PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
		SO_2	0.10	---
		NO_x	0.25	---
		CO	0.56	---
1010	Catalyst Activator 6 Main Burner	VOC	0.05	---
		PM	0.07	---
		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		SO_2	0.14	---
		NO_x	0.35	---
		CO	0.81	---
1011	Catalyst Activator 7 Main Burner	VOC	0.05	---
		PM	0.07	---

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		SO_2	0.14	---
		NO_x	0.35	---
		CO	0.81	---
146, 1010, and 1011	Catalyst Activator Burners 4, 6, 7	PM	---	0.86
		PM_{10}	---	0.86
		$PM_{2.5}$	---	0.86
		SO_2	---	1.62
		NO_x	---	4.61
		CO	---	4.76
		VOC	---	0.62
1001	Catalyst Activator 1 HEPA Filter Vent (9)	PM	<0.01	---
		PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
		CO	25.58	---
		VOC	9.99	---
1002	Catalyst Activator 2 HEPA Filter Vent (9)	PM	<0.01	---
		PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
		CO	25.58	---
		VOC	9.99	---
1003	Catalyst Activator 5 HEPA Filter Vent (9)	PM	<0.01	---
		PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
		CO	25.58	---
		VOC	9.99	---
1003A	Catalyst Activator 3 HEPA Filter Vent (9)	PM	<0.01	---
		PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
		CO	25.58	---

Emission Sources - Maximum Allowable Emission Rates

		VOC	9.99	---
1003B	Catalyst Activator 4 HEPA Filter Vent (9)	PM	<0.01	---
		PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
		SO_2	0.28	---
		CO	25.58	---
		VOC	9.99	---
1001, 1002, 1003, 1003A, & 1003B	Catalyst Activators 1, 2, 3, 4, 5 HEPA Filter Vent (9)	PM	---	<0.01
		PM_{10}	---	<0.01
		$PM_{2.5}$	---	<0.01
		SO_2	---	0.19
		CO	---	21.10
		VOC	---	3.13
1003B	Catalyst Activator 4 HEPA Filter Vent	PM	0.82	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.01	---
		SO_2	0.28	---
		VOC	0.00	---
1008A/B	Catalyst Activator 6 HEPA Filter Vent	PM	2.14	---
		PM_{10}	0.14	---
		$PM_{2.5}$	0.03	---
		VOC	44.4	---
		CO	46.8	---
1009A/B	Catalyst Activator 7 HEPA Filter Vent	PM	2.14	---
		PM_{10}	0.14	---
		$PM_{2.5}$	0.03	---
		VOC	44.4	---
		CO	46.8	---

1003B, 1008A/B, 1009A/B	Catalyst Activators 4, 6, 7 HEPA Filter Vent	PM	---	0.75
		PM_{10}	---	0.05
		$PM_{2.5}$	---	0.01
		SO_2	---	0.19
		CO	---	29.84
		VOC	---	4.43

Emission Sources - Maximum Allowable Emission Rates

1004	Catalyst Activator Quench Station Vent (6)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
1005	Catalyst Activator Raw Catalyst Charging Bldg Vent	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
1006	Catalyst Activator Drum Loading Enclosure Vent	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
1007	Catalyst Activator Fugitive Emissions	PM	<0.01	0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
20	Administrative Complex Emergency Generator	PM	0.86	0.04
		PM_{10}	0.86	0.04
		$PM_{2.5}$	0.86	0.04
		SO_2	0.80	0.04
		NO_x	12.09	0.60
		CO	2.61	0.13
		VOC	0.96	0.05
201	Flash Tank Cleanout	VOC	1.00	---
250	Flash Tank Cleanout	VOC	1.00	---
201 & 250	Flash Tank Cleanout	VOC	---	0.15
206	Powder Additive Tank	PM	0.07	---
		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		VOC	0.03	---
252	Powder Additive Tank	PM	0.07	---
		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		VOC	0.03	---
206 & 252	Powder Additive Tanks	PM	---	0.08
		PM_{10}	---	0.08
		$PM_{2.5}$	---	0.08
		VOC	---	0.03

Emission Sources - Maximum Allowable Emission Rates

207	Pellet Dryer	VOC	0.61	2.68
208	Blend Tanks	PM	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.04	0.19
209	Off-Spec Tank	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
255	Off-Spec Tank	PM	0.05	---
		PM_{10}	0.05	---
		$PM_{2.5}$	0.05	---
209 & 255	Off-Spec Tanks	PM	---	0.20
		PM_{10}	---	0.20
		$PM_{2.5}$	---	0.20
210	Pellet Storage Tanks/Cyclone Vents	PM	0.15	0.67
		PM_{10}	0.15	0.67
		$PM_{2.5}$	0.15	0.67
217	Extruder Feed Tank & Cont Bleeder Vent	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
		VOC	2.85	12.50
219	Pellet Loadout Filter	PM	0.04	0.21
		PM_{10}	0.04	0.21
		$PM_{2.5}$	0.04	0.21
PE6-Pellet	P6 Pellet Loss	VOC	9.60	36.79
253	Pellet Dryer	VOC	0.61	2.68
254	Blend Tanks	PM	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.04	0.19
256	PE 6 Analyzer Vents	VOC	0.01	0.05
257	Pellet Storage Tanks/Cyclone Vents	PM	0.15	0.67
		PM_{10}	0.15	0.67
		$PM_{2.5}$	0.15	0.67
259	PE6 Piping Fugitives (5)	VOC	11.07	48.47
260	Plant 6 Cooling Tower	PM	1.68	7.36

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.96	4.21
		$PM_{2.5}$	<0.01	0.02
		VOC	1.18	3.86
261	Extruder Feed Tank & Cont Bleeder Vent	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
		VOC	2.85	12.50
27	Water Well Number 5 Engine	PM	0.03	0.01
		PM_{10}	0.03	0.01
		$PM_{2.5}$	0.03	0.01
		SO_2	<0.01	<0.01
		NO_x	0.27	0.12
		CO	0.40	0.18
		VOC	0.05	0.02
300	Flash Tank Cleanout	VOC	1.00	---
350	Flash Tank Cleanout	VOC	1.00	---
300 & 350	Flash Tanks Cleanout	VOC	---	0.15
302	Powder Additive Tank	PM	0.07	---
		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		VOC	0.03	---
352	Powder Additive Tank	PM	0.07	---
		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		VOC	0.03	---
302 & 352	Powder Additive Tanks	PM	---	0.08
		PM_{10}	---	0.08
		$PM_{2.5}$	---	0.08
		VOC	---	0.03
303	Pellet Dryer	VOC	0.51	2.21
304	Pellet Blending & Storage	PM	0.21	0.33
		PM_{10}	0.21	0.33

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.21	0.33
305	Pellet Loadout Bag Filter	PM	0.04	0.34
		PM_{10}	0.04	0.34
		$PM_{2.5}$	0.04	0.34
305A	Pelletron Deduster	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
306	PE7 Piping Fugitives (5)	VOC	18.48	80.95
307	Plant 7 Cooling Tower	PM	0.50	2.20
		PM_{10}	0.29	1.26
		$PM_{2.5}$	<0.01	<0.01
		VOC	1.75	4.58
311	Fluff Hopper Car Dust Bag Filter	PM	0.04	0.10
		PM_{10}	0.04	0.10
		$PM_{2.5}$	0.04	0.10
		VOC	0.29	0.67
313	Extruder Feed Tank & Cont. Bleeder Vent	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
		VOC	2.85	12.50
PE7-PELLET	P7 Pellet Loss	VOC	9.60	36.79
353	Pellet Dryer	VOC	0.51	2.21
354	Pellet Blending and Storage	PM	0.21	0.33
		PM_{10}	0.21	0.33
		$PM_{2.5}$	0.21	0.33
355	Extruder Feed Tank & Cont. Bleeder Vent	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
		VOC	2.85	12.50
356	PE 7 Analyzer Vents	VOC	0.01	0.05
400	Flash Tank Cleanout	VOC	1.01	---
450	Flash Tank Cleanout	VOC	1.01	---
400 & 450	Flash Tanks Cleanout	VOC	---	0.12
402	Powder Additive Tank	PM	0.07	---
		PM_{10}	0.07	---

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.07	---
		VOC	0.03	---
452	Powder Additive Tank	PM	0.07	---
		PM_{10}	0.07	---
		$PM_{2.5}$	0.07	---
		VOC	0.03	
402 & 452	Powder Additive Tanks	PM	---	0.08
		PM_{10}	---	0.08
		$PM_{2.5}$	---	0.08
		VOC	---	0.03
403	Pellet Dryer	VOC	1.82	7.97
404	Pellet Blending & Storage/Cyclone	PM	0.07	0.25
		PM_{10}	0.07	0.25
		$PM_{2.5}$	0.07	0.25
405	Pellet Loadout Bag Filter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
406	PE8 Piping Fugitives (5)	VOC	15.02	65.80
407	Plant 8 Cooling Tower	PM	0.45	1.97
		PM_{10}	0.26	1.13
		$PM_{2.5}$	<0.01	<0.01
		VOC	1.58	4.14
414	Pellet Transfer Hopper	PM	0.01	0.03
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.03
PE8-PELLET	PE 8 Pellet Loss	VOC	9.60	36.79
453	Pellet Dryer	VOC	1.82	7.97
454	Pellet Blending & Storage/Cyclone	PM	0.07	0.25
		PM_{10}	0.07	0.25
		$PM_{2.5}$	0.07	0.25
456	PE 8 Analyzer Vents	VOC	0.01	0.07
65.2	Diesel Tank	VOC	0.26	0.01
900	HC Unloading Fugitives (5)	VOC	0.30	1.33

Emission Sources - Maximum Allowable Emission Rates

901	HC Storage Fugitives (5)	VOC	1.89	8.27
308 (7)	PE 6/7 Flare	NO_x	46.99	---
		CO	402.90	---
		VOC	172.05	---
		SO_2	0.22	---
408 (7)	PE 8 Flare	NO_x	46.99	---
		CO	402.90	---
		VOC	172.05	---
		SO_2	0.22	---
216 (7)	PE Flare	NO_x	46.99	---
		CO	402.90	---
		VOC	172.05	---
		SO_2	0.22	---
308, 408, and 216 (7), (8)	All Flares Routine Emissions (CO, SO2, and NOx limits include both routine and MSS)	NO_x	46.99	53.65
		CO	402.90	460.00
		VOC	172.05	184.80
		SO_2	0.22	0.34
308, 408, and 216 (7), (8)	All Flares MSS Emissions	VOC	172.58	11.40
MSSCAP	MSS Cap (EPNs 8, 10, 902, 903, DEG- 2, 3, 4, PEMSSATM, PEMSSLD), AEROSOL, MISCMSS, FLTCOMSS, PE6CFMSS, PE7CFMSS, PE8CFMSS	VOC	67.47	11.85
		PM	9.54	2.26
		PM_{10}	8.03	1.35
		$PM_{2.5}$	8.03	1.35
CAS-3	PE8 Carbon Adsorption System	VOC	0.99	3.51
1012	Raw Catalyst Loading Act 6 HEPA Filter Vent	PM	0.02	<0.01
		PM_{10}	0.02	<0.01
		$PM_{2.5}$	0.02	<0.01
1013	Raw Catalyst Loading Act 7 HEPA Filter Vent	PM	0.02	<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.

Emission Sources - Maximum Allowable Emission Rates

(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
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
(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) Emergency use only.
(7) Emission limits for the PE Flare (EPN 216), the PE 6/7 Flare (EPN 308), and the PE 8 Flare (EPN 408) include routine and off-gas operation. Flare emissions are based on total flow rate and composition of all process vents.
(8) Combined emission limits designated as “All Flares” shall not be exceeded no matter how many flares are in operation.
(9) Emission rates prior to completion of catalyst activator upgrades.

Date: January 11, 2022