Emission Sources - Emission Caps and Rates

Flexible Permit Numbers 4437A, PSDTX808, and N014M1

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)
Flare System - Normal Operation **				
308	Flare	CO		
408	Flare	CO		
Emission Cap (10)		CO	403.22	300
Flare System - MSS:				
308	Flare	CO		
408	Flare	CO		
Emission Cap		CO	193.22	(10)
Flare System - Normal Operation				
308	Flare	NO_X		
408	Flare	NO_X		
	Emission Cap (10)	NO_X	47.03	37.00
Flare System - MSS:				
308	Flare	NO_X		
408	Flare	NO_X		
Emission Cap		NOx	22.54	(10)
Flare System - Normal Operation				
308	Flare	SO_2		
408	Flare	SO_2		
Emission Cap		SO_2	0.25	0.19

Emission Sources - Emission Caps and Rates

Flare System - Normal Operations:				
308	Flare	VOC		
408	Flare	VOC		
Emission Cap		VOC (8)	134.79	133.92
Flare System - MSS:				
308	Flare	VOC		
408	Flare	VOC		
Emission Cap		VOC (8)	246.15	12.43
Flare System Cap - Offgas Flaring				
308	Flare	VOC		
408	Flare	VOC		
Emission Cap		VOC*** (8)	37.26	50.88
Non Flare CO Sources				
83	Activator No. 2 Main Burner	CO		
86	Activator No. 3 Main Burner	CO		
146	Activator No. 4 Main Burner	CO		
170	Activator No. 5 Main Burner	CO		
1000	Activator No. 1 Main Burner	CO		
1001	Activator No. 1 HEPA Filter	CO		
1002	Activator No. 2 HEPA Filter	CO		
1003	Activator No. 5 HEPA Filter	CO		
1003A	Activator No. 3 HEPA Filter	CO		
1003B	Activator No. 4 HEPA Filter	CO		
20	Emergency Generator (100 hours per calendar year)	CO		
27	Water Well #5 Engine (876	CO		

Emission Sources - Emission Caps and Rates

	hours per calendar year)			
Emission Cap		CO	34.52	16.8
Non-Flare NOx Sources:				
83	Activator No. 2 Main Burner	NO_X		
86	Activator No. 3 Main Burner	NO_X		
146	Activator No. 4 Main Burner	NO_X		
170	Activator No. 5 Main Burner	NO_X		
1000	Activator No. 1 Main Burner	NO_X		
20	Emergency Generator (100 hours per calendar year)	NO_X		
27	Water Well #5 Engine (876 hours per calendar year)	NO_X		
Emission Cap		NO_X	17.11	14.24
Non Flare PM/PM10 Sources:				
83	Activator No. 2 Main Burner	PM_{10}		
86	Activator No. 3 Main Burner	PM_{10}		
146	Activator No. 4 Main Burner	PM_{10}		
170	Activator No. 5 Main Burner	PM_{10}		
1000	Activator No. 1 Main Burner	PM_{10}		
1004	Quench Station Vent (6)	PM_{10}		
1005	Raw Catalyst Charging Building	PM_{10}		
1006	Drum Unloading Enclosure	PM_{10}		
1007	Catalyst Fugitives (5)	PM_{10}		
208	PE6 Pellet Storage Tanks	PM_{10}		
209	PE6 Off-Spec Tank	PM_{10}		
210	PE6 Pellet Storage Tanks/ Cyclone Vents	PM_{10}		

Emission Sources - Emission Caps and Rates

217 A, B	PE6 Extruder Feed/Blender	PM_{10}		
219	PE6 Pellet Load out	PM_{10}		
254	PE6 Pellet Blend Tanks	PM_{10}		
255	PE6 Off-Spec Tank	PM_{10}		
257	PE6 Pellet PE6 Pellet Storage Tanks/ Cyclone Vents	PM_{10}		
261 A, B	PE6 Extruder Feed/Blender	PM_{10}		
302	PE7 Powder Storage Tank	PM_{10}		
304	PE7 Pellet Blend Tanks	PM_{10}		
305	PE7 Pellet Load out	PM_{10}		
311	PE7 Fluff Load out	PM_{10}		
313	PE7 Extruder Feed/Blender	PM_{10}		
352	PE7 Powder Storage Tank	PM_{10}		
354	PE7 Pellet Blend Tanks	PM_{10}		
355	PE7 Extruder Feed/Blender	PM_{10}		
402	PE8 Powder Storage Tank	PM_{10}		
405	PE8 Pellet Load out	PM_{10}		
413	PE8 Extruder Feed/Blender	PM_{10}		
452	PE8 Powder Storage Tank	PM_{10}		
455	PE8 Extruder Feed/Blender	PM_{10}		
206	PE6 Powder Additive Tank	PM_{10}		
252	PE6 Powder Additive Tank	PM_{10}		
312	PE7 Pellet Loading	PM_{10}		
404	PE8 Pellet Blending/Storage/ Cyclone	PM_{10}		
454	PE8 Pellet Blending/Storage/ Cyclone	PM_{10}		

Emission Sources - Emission Caps and Rates

1001	Activator No. 1 HEPA Filter	PM_{10}		
1002	Activator No. 2 HEPA Filter	PM_{10}		
1003	Activator No. 5 HEPA Filter	PM_{10}		
1003A	Activator No. 3 HEPA Filter	PM_{10}		
1003B	Activator No. 4 HEPA Filter	PM_{10}		
10	Sandblasting Fugitives	PM_{10}		
902	Rail Repair Sandblasting Fugitives	PM_{10}		
20	Emergency Generator (100 hours per calendar year)	PM_{10}		
27	Water Well # 5 Engine (876 hours per calendar year)	PM_{10}		
8	Painting Fugitives	PM_{10}		
903	Rail Car Painting	PM_{10}		
Emission Cap		PM_{10}	11.85	7.44
Non-Flare SO_2 Sources:				
83	Activator No. 2 Main Burner	SO_2		
86	Activator No. 3 Main Burner	SO_2		
146	Activator No. 4 Main Burner	SO_2		
170	Activator No. 5 Main Burner	SO_2		
1000	Activator No. 1 Main Burner	SO_2		
20	Emergency Generator (100 hours per calendar year)	SO_2		
27	Water Well # 5 Engine (876 hours per calendar year)	SO_2		
Emission Cap		SO_2	0.89	0.13
Non Flare PE VOC Sources:				
83	Activator No. 2 Main Burner	VOC		
86	Activator No. 3 Main Burner	VOC		

Emission Sources - Emission Caps and Rates

146	Activator No. 4 Main Burner	VOC		
170	Activator No. 5 Main Burner	VOC		
1000	Activator No. 1 Main Burner	VOC		
201	PE6 Flash Tank	VOC		
206	Powder Storage Tank	VOC		
207	PE6 Pellet Dryer	VOC		
217 A, B	PE6 Extruder Feed/Blender	VOC		
PE6-PELLET	PE6 Pellet Loss	VOC		
250	PE6 Flash Tank	VOC		
252	Powder Storage Tank	VOC		
253	PE6 Pellet Dryer	VOC		
259	PE6 Piping Fugitives (5)	VOC		
260	PE6 Cooling Tower	VOC		
261 A, B	PE6 Extruder Feed/Blender	VOC		
300	PE7 Flash Tank	VOC		
302	Powder Storage Tank	VOC		
303	PE7 Pellet Dryer	VOC		
306	PE7 Piping Fugitives (5)	VOC		
307	PE7 Cooling Tower	VOC		
311	Fluff Hopper Car	VOC		
313	PE7 Extruder Feed/Blender	VOC		
PE7-PELLET	PE7 Pellet Loss	VOC		
350	PE7 Flash Tank	VOC		
352	Powder Storage Tank	VOC		
353	PE7 Pellet Dryer	VOC		

Emission Sources - Emission Caps and Rates

355	PE7 Extruder Feed/Blender	VOC		
400	PE8 Flash Tank	VOC		
402	Powder Storage Tank	VOC		
403	PE8 Pellet Dryer	VOC		
406	PE8 Piping Fugitives (5)	VOC		
407	PE8 Cooling Tower	VOC		
413	PE8 Extruder Feed/Blender	VOC		
PE8-PELLET	PE8 Pellet Loss	VOC		
450	PE8 Flash Tank	VOC		
452	Powder Storage Tank	VOC		
453	PE8 Pellet Dryer	VOC		
455	PE8 Extruder Feed/Blender	VOC		
Emission Cap		VOC (9)	119.57	480.59
Miscellaneous Facilities VOC Sources				
256	PE6 Analyzer Vents	VOC		
356	PE7 Analyzer Vents	VOC		
456	PE8 Analyzer Vents	VOC		
DEG-1	Maintenance Shop Degreaser No. 1	VOC		
DEG-2	Maintenance Shop Degreaser No. 2	VOC		
DEG-3	Catalyst Activator Degreaser	VOC		
DEG-4	PE Maintenance Shop Degreaser	VOC		
DEG-6	Hoist and Crane Shop Degreaser	VOC		
8	Painting Fugitives	VOC		
901	Storage Fugitives (5)	VOC		

Emission Sources - Emission Caps and Rates

903	Painting Fugitives	VOC		
123	Wastewater Pond No. 1	VOC		
124	Wastewater Pond No. 2	VOC		
125	Wastewater Pond No. 3	VOC		
126	Wastewater Pond No. 4	VOC		
20	Emergency Generator (100 hours per calendar year)	VOC		
27	Water Well # 5 Engine (876 hours per calendar year)	VOC		
65	Underground Gasoline Tank	VOC		
65.2	Diesel Tank	VOC		
900	Piping Fugitives (5) (7)	VOC		
1001	Activator No. 1 HEPA Filter Vent	VOC		
1002	Activator No. 2 HEPA Filter Vent	VOC		
1003	Activator No. 5 HEPA Filter Vent	VOC		
1003A	Activator No. 3 HEPA Filter Vent	VOC		
1003B	Activator No. 4 HEPA Filter Vent	VOC		
Emission Cap		VOC	49.09	27.32
Hexene Sources:				
308	Flare	Hexene		
408	Flare	Hexene		
201	PE6 Flash Tank	Hexene		
206	Powder Storage Tanks	Hexene		
PE6-PELLET	PE6 Pellet Loss	Hexene		
217 A, B	PE6 Extruder Feed/Blender	Hexene		

Emission Sources - Emission Caps and Rates

250	PE6 Flash Tank	Hexene		
252	Powder Storage Tanks	Hexene		
259	PE6 Piping Fugitives (5)	Hexene		
261 A, B	PE6 Extruder Feed/Blender	Hexene		
300	PE7 Flash Tank	Hexene		
302	Powder Storage Tanks	Hexene		
306	PE7 Piping Fugitives (5)	Hexene		
311	Fluff Hopper Car	Hexene		
313	PE7 Extruder Feed/Blender	Hexene		
PE7-PELLET	PE7 Pellet Loss	Hexene		
350	PE7 Flash Tank	Hexene		
352	Powder Storage Tanks	Hexene		
355	PE7 Extruder Feed/Blender	Hexene		
400	PE8 Flash Tank	Hexene		
402	Powder Storage Tanks	Hexene		
406	PE8 Piping Fugitives (5)	Hexene		
413	PE8 Extruder Feed/Blender	Hexene		
PE8-PELLET	PE8 Pellet Loss	Hexene		
450	PE8 Flash Tank	Hexene		
452	Powder Storage Tanks	Hexene		
455	PE8 Extruder Feed/Blender	Hexene		
901	HC Storage Fugitives	Hexene		
Emission Cap		Hexene	19.81	74.95
Routine Maintenance, Startup, and Shutdown (MSS) Emissions				
PEPPMSSATM	MSS Equipment Opening	VOC		

Emission Sources - Emission Caps and Rates

PEPPMSSLD	MSS Truck Loading	VOC		
Emission Cap		VOC	35.14	0.29

(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) 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_{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) Isobutane, hexene, and n-hexane emissions only. Emissions of other materials at EPN 900 are covered in Permit Number 5662A.
(8) The allowable emission rates listed for individual VOC species from this EPN are included in the total VOC emission rates.
(9) The allowable emission rates listed for individual VOC species from this EPN are included in the total VOC emission rates and represent emissions from the facility's cooling towers.
(10) The annual cap for flare system normal operations includes MSS emissions.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hr/day 7 Days/week 52 Weeks/year

** The PSDTX808 emissions are those CO flare emissions attributable to Polyethylene VI, VII, and VIII.

*** These are N014M1 emissions only. The PE off-gases are used as fuel gas in flares identified by EPN above. Other emissions associated with these flares are included in the emission caps found in the maximum allowable emission caps or rates table of this permit.

Date: November 20, 2012