

EMISSION SOURCES - EMISSION CAPS AND RATES

Permit Nos. 4437A and PSD-TX-808 and N014M1

This table lists the maximum allowable emission caps or 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. 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)	<u>Emission Rates *</u>	
			lb/hr	TPY

CO, NO_x Sources:

Flare System **:

216	Flare	CO, NO _x
308	Flare	CO, NO _x
408	Flare	CO, NO _x

Polyethylene Catalyst Activation Facilities:

83	Activator No. 2 Main Burner	CO, NO _x
86	Activator No. 3 Main Burner	CO, NO _x
146	Activator No. 4 Main Burner	CO, NO _x
170	Activator No. 5 Main Burner	CO, NO _x
1000	Activator No. 1 Main Burner	CO, NO _x
1001	Activator No. 1 HEPA Filter	CO
1003	Activator No. 5 HEPA Filter	CO

Emission Cap	CO	165.9	482.5
Emission Cap	NO_x	22.2	68.7

PM₁₀ Sources:

Polyethylene Catalyst Activation Facilities:

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
1001	Activator No. 1 HEPA Filter	PM ₁₀
1002	Act. Nos. 2,3,4 HEPA Filter	PM ₁₀
1003	Activator No. 5 HEPA Filter	PM ₁₀
1004	Quench Station Vent (5)	PM ₁₀

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY

Polyethylene Catalyst Activation Facilities (continued):

1005	Raw Catalyst Charging Building	PM ₁₀
1006	Drum Unloading Enclosure	PM ₁₀
1007	Catalyst Fugitives (4)	PM ₁₀

Polyethylene Plants:

206	PE6 Powder Additive Tank	PM ₁₀
208	PE6 Pellet Blend Tanks	PM ₁₀
209	PE6 Off-Spec Tank	PM ₁₀
210	PE6 Pellet Silos	PM ₁₀
212	PE6 Pellet Blender	PM ₁₀
213	PE6 Supply Silos	PM ₁₀
214	PE6 Loading Bin	PM ₁₀
217	PE6 Extruder Feed/Blender	PM ₁₀
218	PE6 Fluff Loadout	PM ₁₀
219	PE6 Pellet Loadout	PM ₁₀
252	PE6 Powder Additive Tank	PM ₁₀
254	PE6 Pellet Blend Tanks	PM ₁₀
255	PE6 Off-Spec Tank	PM ₁₀
257	PE6 Pellet Silos	PM ₁₀
258	PE6 Pellet Blender	PM ₁₀
261	PE6 Extruder Feed/Blender	PM ₁₀
302	PE7 Powder Additive Tank	PM ₁₀
304	PE7 Pellet Blend Tanks	PM ₁₀
305	PE7 Pellet Loadout	PM ₁₀
311	PE7 Fluff Loadout	PM ₁₀
312	PE7 Pellet Loading	PM ₁₀
313	PE7 Extruder Feed/Blender	PM ₁₀
352	PE7 Powder Additive Tank	PM ₁₀
354	PE7 Pellet Blend Tanks	PM ₁₀
355	PE7 Extruder Feed/Blender	PM ₁₀
402	PE8 Powder Additive Tank	PM ₁₀
404	PE8 Pellet Blend Tanks	PM ₁₀
405	PE8 Pellet Loadout	PM ₁₀
411	PE8 Fluff Loadout	PM ₁₀
412	PE8 Pellet Loading	PM ₁₀
413	PE8 Extruder Feed/Blender	PM ₁₀

Polyethylene Plants (continued):

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY

452	PE8 Powder Additive Tank	PM ₁₀		
454	PE8 Pellet Blend Tanks	PM ₁₀		
455	PE8 Extruder Feed/Blender	PM ₁₀		

HAC Polypropylene Plant:

39A	Tank Farm	PM ₁₀		
39B	Pellet Loading Spot 13	PM ₁₀		
39C	Pellet Loading Spot 14	PM ₁₀		
39D	Hopper Car Loading	PM ₁₀		
39E	Bagging and Boxing	PM ₁₀		
52	Fluff Filter	PM ₁₀		
53	Bagging House	PM ₁₀		
701	Train 1 Fluff Surge Tank	PM ₁₀		
702	Train 2 Fluff Surge Tank	PM ₁₀		
704	Train 4 Fluff Surge Tank	PM ₁₀		
716	Train 1 Pure Additive Hopper	PM ₁₀		
719	Train 1 Pellet Dryer	PM ₁₀		
729	Train 2 Pellet Dryer	PM ₁₀		
736	Trains 3,4 Pure Additive Hopper	PM ₁₀		
739	Train 3 Pellet Dryer	PM ₁₀		
750	Train 4 Pellet Dryer	PM ₁₀		
751	Baghouse	PM ₁₀		

GPH Polypropylene Plant:

810A	Additive Vent Filter A	PM ₁₀		
810B	Additive Vent Filter B	PM ₁₀		
810C	Additive Vent Filter C	PM ₁₀		
810D	Additive Vent Filter D	PM ₁₀		
810E	Additive Vent Filter E	PM ₁₀		
810F	Additive Vent Filter F	PM ₁₀		
810G	Additive Vent Filter G	PM ₁₀		
811	Additive Pressure ELBF	PM ₁₀		
812	Grizzley Vent Filter	PM ₁₀		
813	Powder Feed Weigher Vent Filter	PM ₁₀		
816	Pellet Dryer Vent	PM ₁₀		

GPH Polypropylene Plant (continued):

817A	Pellet Silo A Filter	PM ₁₀		
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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
817B	Pellet Silo B Filter	PM ₁₀		
817C	Pellet Silo C Filter	PM ₁₀		
817D	Pellet Silo D Filter	PM ₁₀		
818	Pellet Service Hopper	PM ₁₀		
819A	Blender Silo A	PM ₁₀		
819B	Blender Silo B	PM ₁₀		
820	Off Pellet Hopper	PM ₁₀		
821	B-Pellet Feed Hopper	PM ₁₀		
822	Pellet Feed Hopper Filter	PM ₁₀		
39D	S-E PP Hopper Car Loading	PM ₁₀		
39E	PP Boxing and Bagging	PM ₁₀		
	Emission Cap	PM₁₀	5.3	16.5

VOC Sources:

Flare System:

216	Flare	VOC
308	Flare	VOC
408	Flare	VOC

Hydrocarbon Loading/Unloading Facility:

900	Piping Fugitives (4) (6)	VOC
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Polyethylene Catalyst Activation Facilities:

83	Activator No. 2 Main Burner	VOC
86	Activator No. 3 Main Burner	VOC
146	Activator No. 4 Main Burner	VOC
170	Activator No. 5 Main Burner	VOC
1000	Activator No. 1 Main Burner	VOC

Polyethylene Plants:

201	PE6 Flash Tank	VOC
207	PE6 Pellet Dryer	VOC

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
208	PE6 Pellet Blend Tanks	VOC		
209	PE6 Off-Spec Tank	VOC		
210	PE6 Pellet Silos	VOC		
212	PE6 Pellet Blender	VOC		
213	PE6 Supply Silos	VOC		
217	PE6 Extruder Feed/Blender	VOC		
219	PE6 Pellet Loadout	VOC		
250	PE6 Flash Tank	VOC		
253	PE6 Pellet Dryer	VOC		
254	PE6 Pellet Blend Tanks	VOC		
255	PE6 Off-Spec Tank	VOC		
257	PE6 Pellet Silos	VOC		
258	PE6 Pellet Blender	VOC		
259	PE6 Piping Fugitives (4)	VOC		
260	PE6 Cooling Tower (4)	VOC		
261	PE6 Extruder Feed/Blender	VOC		
300	PE7 Flash Tank	VOC		
303	PE7 Pellet Dryer	VOC		
304	PE7 Pellet Blend Tanks	VOC		
305	PE7 Pellet Loadout	VOC		
306	PE7 Piping Fugitives (4)	VOC		
307	PE7 Cooling Tower (4)	VOC		
313	PE7 Extruder Feed/Blender	VOC		
350	PE7 Flash Tank	VOC		
353	PE7 Pellet Dryer	VOC		
354	PE7 Pellet Blend Tanks	VOC		
355	PE7 Extruder Feed/Blender	VOC		
400	PE8 Flash Tank	VOC		
403	PE8 Pellet Dryer	VOC		
404	PE8 Pellet Blend Tanks	VOC		
405	PE8 Pellet Loadout	VOC		
406	PE8 Piping Fugitives (4)	VOC		
407	PE8 Cooling Tower (4)	VOC		
413	PE8 Extruder Feed/Blender	VOC		
450	PE8 Flash Tank	VOC		

Polyethylene Plants (continued):

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY

453	PE8 Pellet Dryer	VOC
454	PE8 Pellet Blend Tanks	VOC
455	PE8 Extruder Feed/Blender	VOC

HAC Polypropylene Plant:

39A	Tank Farm	VOC
39B	Pellet Loading Spot 13	VOC
39C	Pellet Loading Spot 14	VOC
39E	Bagging and Boxing	VOC
56	Piping Fugitives (4)	VOC
132	Cooling Tower (4)	VOC
701	Train 1 Fluff Surge Tank	VOC
702	Train 2 Fluff Surge Tank	VOC
704	Train 4 Fluff Surge Tank	VOC
719	Train 1 Pellet Dryer	VOC
729	Train 2 Pellet Dryer	VOC
748	Train 4 Extruder Chute	VOC
749	Train 4 Extruder Vent	VOC
750	Train 4 Pellet Dryer	VOC
751	Baghouse	VOC

GPH Polypropylene Plant:

801	Piping Fugitives (4)	VOC
803	Cooling Tower (4)	VOC
815	Extruder Vent	VOC
816	Pellet Dryer Vent	VOC
817A	Pellet Silo A Filter	VOC
817B	Pellet Silo B Filter	VOC
817C	Pellet Silo C Filter	VOC
817D	Pellet Silo D Filter	VOC
818	Pellet Service Hopper	VOC
819A	Blender Silo A	VOC
819B	Blender Silo B	VOC

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
820	Off Pellet Hopper	VOC		
821	B-Pellet Feed Hopper	VOC		
GPH Polypropylene Plant (continued):				
822	Pellet Feed Hopper	VOC		
39D	S-E PP Hopper Car Loading	VOC		
39E	PP Boxing and Bagging	VOC		
	Emission Cap	VOC	300.7	925.2

Hexene Sources:

Flare System:

216	Flare	Hexene
308	Flare	Hexene
408	Flare	Hexene

Hydrocarbon Loading/Unloading Facility:

900	Piping Fugitives (4) (6)	Hexene
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Polyethylene Plants:

201	PE6 Flash Tank	Hexene
217	PE6 Extruder Feed/Blender	Hexene
250	PE6 Flash Tank	Hexene
259	PE6 Piping Fugitives (4)	Hexene
261	PE6 Extruder Feed/Blender	Hexene
300	PE7 Flash Tank	Hexene
306	PE7 Piping Fugitives (4)	Hexene
313	PE7 Extruder Feed/Blender	Hexene
350	PE7 Flash Tank	Hexene
355	PE7 Extruder Feed/Blender	Hexene
400	PE8 Flash Tank	Hexene
406	PE8 Piping Fugitives (4)	Hexene
413	PE8 Extruder Feed/Blender	Hexene
450	PE8 Flash Tank	Hexene

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
455	PE8 Extruder Feed/Blender	Hexene		
	Emission Cap	Hexene	22.1	82.3
216, 308, 408	PE/PP Off-Gases	VOC***	38.73	117.56

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

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

(3) CO - carbon monoxide

NO_x - total oxides of nitrogen

PM₁₀ - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it

shall be assumed that no particulate matter greater than 10 microns is emitted.

VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) Emergency use only.

(6) Isobutane, hexene, and n-hexane emissions only. Emissions of other materials at EPN 900 are covered in Permit No. 5662A.

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

Hrs/year 8,760

** The PSD-TX-808 emissions are those CO flare emissions attributable to Polyethylene VI, VII, and VIII.

*** These are the N014 and N014M1 emissions only. The PE/PP 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.

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY

Dated_____