EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 1567 and PSDTX118M4

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. 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 * lb/hr	TPY**
233	G5 Catalyst Feed Vent	PM	0.01	0.01
		VOC	0.33	1.45
245	Y-System Baghouse Vent	PM	0.10	0.19
246	Large Flare	VOC	210.36	65.79
		NO_x	29.75	18.26
		CO **(PSD)**	151.57	93.06
		SO_2	0.40	0.50
246	Large Flare (Start-Up, Shutdown, and Maintenance)	VOC	507.88	4.38
		NO_x	46.31	0.40
		CO	235.99	2.06
248	G5 Gas Compressor Seal Oil Vent	VOC	0.27	1.16
249	Analyzer Vents	VOC	0.32	1.37
401, 402, 404, and 615	X-1, X-2, X-5, and X-6 Transfer Systems	PM	0.29	0.79 (7)
403	X-3 Transfer System	PM	0.10	0.19
409	Blending Bins Baghouse	PM	7.20	2.70
540	Master Batch System Vent	PM	0.02	0.01
1005	G-5 Product Purge Bin Rotary Feeder Vent	PM	0.02	0.08

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1029	Resin Seed Bed Vent (8)	PM	8.13	0.13
SILOS				
234 H	Silo 101 Baghouse			
235 H	Silo 102 Baghouse			
236 H	Silo 103 Baghouse			
237 H	Silo 104 Baghouse			
238 H	Silo 105 Baghouse			
239 H	Silo 106 Baghouse			
240 H	Silo 107 Baghouse			
241 H	Silo 201 Baghouse			
242 H	Silo 202 Baghouse			
243 H	Silo 203 Baghouse			
244 H	Silo 204 Baghouse			
399 H	Silo 205 Baghouse			
400 H	Silo 206 Baghouse			
387 H	Silo 401 Baghouse			
388 H	Silo 402 Baghouse			
389 H	Silo 403 Baghouse			
390 H	Silo 404 Baghouse			
391 H	Silo 405 Baghouse			
392 H	Silo 406 Baghouse			
393 H	Silo 301 Baghouse			
394 H	Silo 302 Baghouse			
395 H	Silo 303 Baghouse			
396 H	Silo 304 Baghouse			
397 H	Silo 305 Baghouse			
398 H	Silo 306 Baghouse			
	Total Silos	PM	0.21 (6)	0.79 (7)
		VOC	7.03 (6)	11.46 (7)
1081	Block 12 North Catalyst Wash Pot	VOC	5.87	0.85

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1082	Block 12 Middle Catalyst Wash Pot	VOC	5.87	0.85
1083	Block 12 South Catalyst Wash Pot	VOC	5.87	0.85
1084	Block 25 Precursor Wash Pot	VOC	5.87	1.45
1085	Block 25 G-2/G-4 Blender Wash Pot	VOC	5.93	1.46
BLENDING BINS				
405	North Blending Bin			
406	South Blending Bin			
Total EPNs 405 and 406		PM	0.90 (6)	0.49 (7)
766-3	Feed Stream Fugitives (4)	VOC	8.57	37.58
766-7	Reactor Fugitives (4)	VOC	5.77	25.28
CATALYST EXPANSION/ISOPENTANE RECOVERY				
1125	No. 4 Activator Vent Filter	PM	0.01	0.02
1126	No. 4 Activator Blow Tank Vent Filter	PM	0.01	0.01
1127	G2 Blender Blow Tank Vent Filter	PM VOC	0.01 0.11	0.01 0.54
1128	G4 Blender Blow Tank Vent Filter	PM VOC	0.01 0.11	0.01 0.54

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1129	Catalyst Expansion Area Fugitives (4) (9)	VOC	1.20	5.28
705	Small Flare (10)	VOC	17.52	8.95
		NO_x	8.17	3.21
		CO **(PSD)**	12.52	4.92
530	THF Tank Vent	VOC	22.06	0.53
535	Bin 7117 Vent Filter	PM	0.01	0.01
		Chromium Metal	0.01	0.01
		VOC	0.50	0.61
535L	Bin 7117 Cylinder Loading Filter	PM	0.01	0.01
		Chromium Metal	0.01	0.01
		VOC	0.20	0.24
1044	South Ethylene Sieve Vent	VOC	6.00	
1045	West Ethylene Sieve Vent	VOC	6.00	
Total EPNs 1044 and 1045		VOC		1.62
1046	Isopentane Sieves Combined Vent	VOC	6.0	0.94
1047	Butene Sieves Combined Vent	VOC	6.0	3.95
1048	Hexene Sieves Combined Vent	VOC	6.0	0.75
1007	Catalyst Bin 31 Loading	PM	0.02	0.09
		VOC	0.71	3.09
1009	Catalyst Cylinder Loading	PM	0.01	0.01
		VOC	0.02	0.07

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
UCAT-J FACILITY				
705	Small Flare (10)	VOC	2.39	0.79
		NO_x	1.13	0.38
		CO	1.72	0.57
1150	Silica Charge Pot Filter	PM	0.01	0.02
1151	Magnesium Chloride Charge Pot Filter	PM	0.01	0.01
1152A	Product Cylinder Vent	VOC	0.01	0.01
1152B	Product Cylinder Vent	VOC	0.01	0.01
1154	Mineral Oil Tank Vent	VOC	0.01	0.01
1155	Fugitives (4)	Inorganic	0.01	0.02
		VOC	0.53	2.30
1156A	Fugitives (4)-Silica Truck No. 1	PM	0.01	0.01
1156B	Fugitives (4)-Silica Truck No. 2	PM	0.01	0.01
1158A	THF Filters	VOC	0.07	0.01
1158B	THF Filters	VOC	0.07	0.01
1159A	THF Filters	VOC	0.07	0.01
1159B	THF Filters	VOC	0.07	0.01

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

(2) Specific point source names. For fugitive sources use area name or fugitive source name.
(3) PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code ' 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) [reserved]
(6) Maximum hourly emission rate from any one emission point listed within a group.
(7) Maximum total annual emission rates for the group of listed emission points.
(8) This EPN is associated with reactor start-up only.
(9) 0.48 tpy of isopentane is authorized through Permit by Rule Registration Number 44680. This permit by rule has not been voided.
(10) Compliance with allowable emissions for EPN 705 may be demonstrated by monitoring the combined stream to the flare for UCAT-J Facility and catalyst expansion/isopentane recovery.

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

Hrs/day_____ Days/week_____ Weeks/year_____ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated February 3, 2011