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, 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)
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	214.30	65.32
		NOx	31.48	17.76
		CO (PSD)	227.35	128.25
		SO2	1.05	0.79
246	Large Flare (Start-Up, Shutdown, and Maintenance)	VOC	507.88	4.38
		NOx	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
415	Z-Transfer System	PM	0.12	0.56
		PM_{10}	0.12	0.56
		$PM_{2.5}$	0.12	0.56
540	Master Batch System Vent	PM	0.02	0.01
1005	G-5 Product Purge Bin Rotary Feeder Vent	PM	0.02	0.08
1029	Resin Seed Bed Vent (8)	PM	8.13	0.13
1081	Block 12 North Catalyst Wash Pot	VOC	5.87	0.85
1082	Block 12 Middle Catalyst Wash Pot	VOC	5.87	0.85

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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
Silo Baghouses				
234 H	Silo 101 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
235 H	Silo 102 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
236 H	Silo 103 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
237 H	Silo 104 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
238 H	Silo 105 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
239 H	Silo 106 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
240 H	Silo 107 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
241 H	Silo 201 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
242 H	Silo 202 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
243 H	Silo 203 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
244 H	Silo 204 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
399 H	Silo 205 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
400 H	Silo 206 Baghouse	PM	0.21 (6)	-

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		VOC	7.03 (6)	-
387 H	Silo 401 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
388 H	Silo 402 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
389 H	Silo 403 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
390 H	Silo 404 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
391 H	Silo 405 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
392 H	Silo 406 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
393 H	Silo 301 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
394 H	Silo 302 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
395 H	Silo 303 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
396 H	Silo 304 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
397 H	Silo 305 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
398 H	Silo 306 Baghouse	PM	0.21 (6)	-
		VOC	7.03 (6)	-
	Total Silo Baghouse Cap (7)	PM	-	0.79
		VOC	-	11.46
Blending Bins				

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405	North Blending Bin	PM	0.90 (6)	-
406	South Blending Bin	PM	0.90 (6)	-
	Total EPNs 405 and 406 Cap (7)		-	0.49
766-3	Feed Stream Fugitives (6)	VOC	8.57	37.58
766-7	Reactor Fugitives (6)	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	0.01	0.01
		VOC	0.11	0.54
1128	G4 Blender Blow Tank Vent Filter	PM	0.01	0.01
		VOC	0.11	0.54
1129	Catalyst Expansion Area Fugitives (6) (9)	VOC	1.20	5.28
705	Small Flare (10)	VOC	17.52	8.95
		NOx	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 (6)	-
1045	West Ethylene Sieve Vent	VOC	6.00 (6)	-
	Total EPNs 1044 and 1045 Cap (7)	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

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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
UCAT-J Facility				
705	Small Flare (10)	VOC	2.39	0.79
		NOx	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 (6)	Inorganic	0.01	0.02
		VOC	0.53	2.30
1156A	Fugitives (6)-Silica Truck No. 1	PM	0.01	0.01
1156B	Fugitives (6)-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 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
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(5) [reserved]
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

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(7) The combined annual emission from the group of listed emission points is limited to the total annual emission rate cap.
(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.

Date: TBD