## Emission Sources - Maximum Allowable Emission Rates

## Permit Number 115221

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

<b>Emission Point</b>	Source Name (2)	Air Contaminant	Emission Rates	
No. (1)		Name (3)	lbs/hour	TPY (4)
616FUG_HY1	Hydrogenation Plant Fugitives (5)	voc	1.31	5.74
		Ammonia	0.12	0.54
616FUG_NH1	Non-Hydrogenation Plant Fug (5)	voc	0.20	0.89
		Ammonia	0.02	0.07
600	TETA Storage Tank	voc	0.01	<0.01
602	Tote Storage from HY1- T100/T130/T340	VOC	1.76	0.10
603	Hydrogenation Reactor Catalyst Recovery System	voc	1.76	0.11
		Ammonia	0.04	<0.01
604	Hydrogenation Reactor Area Tote Station	voc	1.76	0.26
		Ammonia	0.41	<0.01
605	Hydrogenation/Non-Hydro Drumming Emissions	VOC	3.36	1.01
606	Crude DMAPA Tank HY1-NT440 (emissions from seals)	VOC	0.01	0.07
607	Tote Storage	voc	1.82	0.01
608	Tote Storage from NH1-T-190	voc	0.73	<0.01
609	Non-Hydrogenation Reactor Tote Storage	VOC	1.76	0.04
610	Phenol Storage Tank	voc	0.01	<0.01
611	Non-Hydrogenation Reactor Steam Ejector Vent	VOC	1.16	0.07

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## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		1		
612	Thermal Oxidizer Vent Stack	СО	0.78	1.71
		NO <sub>x</sub>	12.87	21.14
		PM	0.42	1.84
		PM <sub>10</sub>	0.42	1.84
		PM <sub>2.5</sub>	0.42	1.84
		SO <sub>2</sub>	1.43	0.75
		VOC	2.96	7.80
		Ammonia	2.68	11.74
613	Pad Water Surge Tank	VOC	0.01	<0.01
614	Wastewater Equalization Tank	VOC	0.04	0.62
		Ammonia	0.12	0.99
617	Cooling Tower	PM	0.09	0.39
		PM <sub>10</sub>	0.07	0.31
		PM <sub>2.5</sub>	0.03	0.13
618	DMAPN Storage tank HY1- T350 uncontrolled breathing losses	voc	0.01	0.04

Emission point identification - either specific equipment designation or emission point number from plot plan.

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

VOC -NO<sub>x</sub> -CO -SO<sub>2</sub> -PM -(3) volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

total oxides of nitrogen

carbon monoxide

sulfur dioxide

total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented

 $PM_{10}$ total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented

particulate matter equal to or less than 2.5 microns in diameter

Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special (5)conditions and permit application representations.

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	Dated	January 18 2017

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