

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 87549

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**
HP-1	Reformer Flue Gas Stack	CO	11.13	11.66
		NH ₃	1.49	5.92
		NO _x	3.29	8.01
		NO _x (5)	13.46	0.58
		NO _x (6)	6.73	0.25
		NO _x (7)	13.46	
		PM ₁₀	3.29	13.10
		SO ₂	0.10	0.17
		VOC	3.32	13.24
HP-2	Deaerator	CO	1.16	4.62
		NH ₃	0.37	1.46
		VOC	1.25	5.00
HP-4	Cooling Tower	PM	0.05	0.21
HP-5	Steam Vent	CO	30.66	2.21
		NH ₃	9.68	0.70
		VOC	33.14	2.39
HP-FUG	Process Fugitives (4)	CO	0.11	0.48
		NH ₃	0.03	0.14
		VOC	0.08	0.34
<u>Maintenance, Startup, and Shutdown (MSS)</u>				
HP-3-MSS	Hydrodesulfurization Reactor MSS	PM	0.04	0.01
PDEGASTAU	Process Turnaround Degas to Atmosphere 0.06	CO		14.60
		NH ₃	0.30	0.03
		VOC	0.30	0.03

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			lb/hr	TPY**
UDEGASTAU	Unit Shutdown Degas to Atmosphere	CO	9.12	0.09
		NH ₃	0.30	0.03
		VOC	0.30	0.03
INS	Low Emitting MSS Activities	VOC	3.16	0.34

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

- (3) CO - carbon monoxide
 NH₃ - ammonia
 NO_x - total oxides of nitrogen
 PM - particulate matter, including PM₁₀
 PM₁₀ - particulate matter (PM) 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.
 SO₂ - sulfur dioxide
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Furnace NO_x allowable emission rates during initial commissioning.
- (6) Furnace NO_x allowable emission rates for startup as defined in Special Condition No. 14.
- (7) Furnace NO_x hourly allowable emission rate during SCR MSS. These operating periods shall be included when demonstrating compliance with the routine annual allowable emission rate.

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

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

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

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			lb/hr	TPY**

Dated: August 26, 2010