

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 23271

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
16STK-001	Hydrogen Reformer	PM	1.24	5.42
		NO _x	15.6	68.3
		CO	9.90	43.4
		SO ₂	0.15	0.65
16VNT-002	Amine Stripper Vent	CO	6.84	30.0
16VNT-004 only)	Hydrogen Plant Vent	(Start-up and shutdown use		
04FUG	Fugitives (4)	VOC	3.73	16.32
		NH ₃	0.84	3.67
04LRC-006	Railcar Loading	VOC	0.77	0.05
04VNT-007	Synthesis Process Vent	VOC	2.33	0.79
		NH ₃	4.35	1.30
04VNT-009	Refining Process Vent	VOC	0.08	0.01
		NH ₃	0.17	0.03
04VNT-010	Foreshots Column VS System	VOC	<0.01	<0.01
		NH ₃	15.80	2.65
04VNT-013	Refining Jet Condenser System 0.26	VOC		0.068
		NH ₃	1.59	5.95
04LTR-018	Truck Loading	VOC	1.56	0.04
		NH ₃	3.35	0.32

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			lb/hr	TPY
04TFX-020	North and South DCH Tanks Breather Pot	VOC	0.03	0.10
04TVS-023	HMD Blend Tanks Breather Pot 0.80	VOC		0.67
04TFX-025	"F" Crude DCH Tank Breather Pot	VOC	0.02	0.08
		NH ₃	<0.01	0.02
04TFX-026	"E" HMD Rework Tank Breather Pot	VOC	0.08	0.06
		NH ₃	0.11	0.36
04TFX-027	Organic Waste Tank Breather Pot 0.02	VOC		0.18
04TFX-028	"A" Refined Tank Breather Pot 0.11	VOC		0.26
04TFX-029	"B" Refined Tank Breather Pot 0.07	VOC		0.26
04TVS-030	Crude Receiver Tanks Breather Pot	VOC	0.58	2.65
		NH ₃	0.46	2.09
04TFX-031	Recycle Water Tank	VOC	<0.01	0.02
		NH ₃	0.05	0.30
04FLR-032	Diamine Flare	VOC	2.87	3.26
		NO _x	4.57	4.22
		CO	39.22	32.19
		SO ₂	0.18	0.14
		NH ₃	2.44	9.36
04TVS-033	Co-Product Storage Tanks Breather Pot	VOC	0.26	0.56
04TVS-034	Crude HMD Tanks	VOC	1.66	11.34
		NH ₃	0.58	3.96
04CWA-035	Cooling Basin (4)	VOC	1.81	2.63

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Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
04SWT-131	HMD Synthesis Lube Oil Sump 0.069	VOC		0.016
		NH ₃	0.002	0.010
04SWT-141	509 Primary Tank Farm Sump	VOC	0.002	0.012
		NH ₃	0.008	0.033
04SWT-142	Refining DCH Tank Waste Sump 0.003	VOC		<0.001
		NH ₃	0.015	0.064
04SWT-002	541 West Intermediate Tank Farm Sump	VOC	<0.001	0.001
		NH ₃	0.007	0.032
04SWT-143	541 East Intermediate Tank Farm Sump	VOC	<0.001	0.001
		NH ₃	0.007	0.032

(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) PM - particulate matter

VOC - volatile organic compounds as defined in General Rule 101.1

NO_x - total oxides of nitrogen

CO - carbon monoxide

SO₂ - sulfur dioxide

NH₃ - ammonia

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

* 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

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

Dated_____