

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		Air Contaminant		<u>Emission Rates *</u>	
	Name (2)	Name (3)	lb/hr	TPY		
16STK-001	Hydrogen Reformer			PM	1.24	5.42
				NOx	15.6	68.3
				CO	9.90	43.4
				SO2	0.15	0.65
16VNT-002	Amine Stripper Vent			CO	6.84	30.0
16VNT-004	Hydrogen Plant Vent	(Start-up and Shutdown Use Only)				
04FUG	Fugitives (4)			VOC	7.80	33.55
				NH3	1.3	5.6
04LRC-006	Railcar Loading			VOC	0.77	0.05
04VNT-007	Synthesis Process Vent			VOC	2.33	0.79
				NH3	4.35	1.30
04VNT-009	Refining Process Vent			VOC	0.08	0.01
				NH3	0.17	0.03
04VNT-010	Foreshots Column VS System			VOC	<0.01	<0.01
				NH3	15.80	2.65
04VNT-013	Refining Jet Condenser System			VOC	0.068	0.26
				NH3	1.59	5.95
04LTR-018	Truck Loading			VOC	1.56	0.04
				NH3	3.35	0.32
04TFX-020	North DCH Tank Breather Pot			VOC	0.014	0.05
04TFX-021	South DCH Tank Breather Pot			VOC	0.014	0.05
04TVS-022	HMI Tanks Scrubber			VOC	0.03	0.09

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
04TVS-023	HMD Blend Tanks Breather Pot	VOC	0.67	0.80
04TFX-025	"F" Crude DCH Tank Breather Pot	VOC	0.02	0.08
		NH3	<0.01	0.02
04TFX-026	"E" HMD Rework Tank Breather Pot	VOC	0.08	0.06
		NH3	0.11	0.36
04TFX-027	Organic Waste Tank	VOC	0.39	0.83
	Breather Pot			
04TFX-028	"A" Refined Tank Breather Pot	VOC	0.26	0.11
04TFX-029	"B" Refined Tank Breather Pot	VOC	0.26	0.07
04TVS-030	Crude Receiver Tanks Breather Pot	VOC	0.58	2.65
		NH3	0.46	2.09
04TFX-031	Recycle Water Tank	VOC	<0.01	0.02
		NH3	0.05	0.30
04FLR-032	HMD Flare	VOC	80.9	5.07
		NOx	10.2	3.66
		CO	82.5	29.6
		SO2	0.18	0.14
		NH3	9.30	6.93
04TVS-033	Co-Product Storage Tanks Breather Pot	VOC	0.26	0.56
04TVS-034	Crude HMD Tanks	VOC	1.66	11.34
		NH3	0.58	3.96
04CWA-035	Cooling Basin (4)	VOC	0.41	1.78

		NH3	0.11	0.50
04SWT-131	HMD Synthesis Lube Oil Sump	VOC	0.016	0.069
04SWT-141	509 Primary Tank Farm Sump	VOC	0.002	0.012
04SWT-142	Refining DCH Tank Waste Sump	VOC	<0.001	0.003
04SWT-002	541 West Intermediate Tank Farm Sump	VOC	<0.001	0.001
04SWT-143	541 East Intermediate Tank Farm Sump	VOC	<0.001	0.001

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- (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

Dated_____