

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 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 | 1.30 | 5.71 |
| | | NO _x | 10.80 | 47.30 |
| | | CO | 14.40 | 63.07 |
| | | SO ₂ | 0.10 | 0.45 |
| | | VOC | 0.94 | 4.13 |
| | | NH ₃ | 0.55 | 2.40 |
| 16VNT-002 | Amine Stripper Vent | CO | 6.81 | 29.84 |
| 16VNT-004 | Hydrogen Plant Vent (Start-up and shutdown use only) | CO | 6.63 | 0.05 |
| 04FUG | Fugitives (4) | VOC | 5.648 | 24.739 |
| | | NH ₃ | 0.642 | 2.81 |
| 04LRC-006 | Railcar Loading | VOC | 0.74 | 0.07 |
| 04VNT-013 | Refining Jet Condenser System | VOC | 0.192 | 0.839 |
| | | NH ₃ | 0.103 | 0.45 |
| 04LTR-018 | Truck Loading | VOC | 0.906 | 0.0448 |
| | | NH ₃ | 0.0011 | 0.018 |
| 04TFX-020 | North DCH Tanks Breather Pot | VOC | 1.349 | 0.243 |
| 04TFX-021 | South DCH Tank Breather Pot | VOC | 1.349 | 0.243 |
| 04TVS-023 | HMD Blend Tanks A-D Breather Pots | VOC | 0.063 | 0.014 |
| 04VNT-007 | Synthesis Process Vent | VOC | 2.055 | 0.308 |

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| | | | lb/hr | TPY** |
| | | NH ₃ | 4.992 | 1.398 |
| 04TFX-025 | "F" Crude DCH Tank | VOC | 8.425 | 1.515 |
| | Breather Pot | NH ₃ | 1.944 | 0.350 |
| 04TFX-028 | "A" Refined Tank Breather Pot | VOC | 0.043 | 0.004 |
| 04TFX-029 | "B" Refined Tank Breather Pot | VOC | 0.043 | 0.004 |
| Combined emissions from EPNs 04TFX-028 and 04TFX-029 shall not exceed | | VOC | 0.069 | 0.008 |
| 04TVS-030 | Crude Receiver Tanks A & B | VOC | 2.645 | 0.898 |
| | Breather Pot | NH ₃ | 14.49 | 30.4 |
| 04FLR-032 | Diamine Flare (HMD Flare) | VOC | 7.159 | 6.26 |
| | | NO _x | 6.859 | 7.833 |
| | | CO | 41.369 | 33.452 |
| | | SO ₂ | 0.185 | 0.13 |
| | | NH ₃ | 4.069 | 7.863 |
| | | H ₂ S | 0.002 | 0.014 |
| | | PM | 0.598 | 0.43 |
| 04TVS-033 | Co-Product Storage Tanks A - E | VOC | 4.27 | 0.46 |
| | Breather Pot | | | |
| 04TVS-034 | Crude HMD Tanks A & B | VOC | 2.78 | 2.11 |
| | | NH ₃ | 3.67 | 7.6 |
| 04CWA-035 | Cooling Basin (4) | VOC | 0.407 | 1.780 |
| | | NH ₃ | 0.114 | 0.501 |
| 04TFX-508 | HMD Permeate Tank | VOC | 0.001 | 0.001 |
| | | NH ₃ | 0.245 | 0.114 |
| 04TFX-506 | Aqueous Waste Tank | VOC | 0.001 | 0.001 |
| | | NH ₃ | 1.398 | 0.004 |
| 04LBA-006A | Loading: Barge | VOC | 0.035 | 0.053 |

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| | | | lb/hr | TPY** |
| 16TFX006 | MDEA Tank | VOC | 0.0788 | 0.001 |
| 16TFX005 | MESA Tank | VOC | 0.004 | 0.001 |
| 04SWT-131 | HMD Synthesis Lube Oil Sump | VOC | 0.016 | 0.069 |
| | | NH ₃ | 0.002 | 0.01 |
| 04SWT-141 | 509 Primary Tank Farm Sump | VOC | 0.002 | 0.012 |
| | | NH ₃ | 0.008 | 0.033 |
| 04SWT-142 | Refining DHC Tank Waste Sump | VOC | 0.001 | 0.003 |
| | | 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 Title 30 Texas Administrative Code § 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

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

schedule:

Hrs/day___Days/week___Weeks/year___or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period. **(9/05)**

Dated _____