EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 865A and PSD-TX-1016

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. **(04/06)**

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| ColumnMain | Acrolein Unit Column/Filter Cleaning | VOC | 0.01 | 0.01 |
| D215 | Diesel Tank D-215 | VOC | 0.02 | 0.01 |
| D307 | Methanol Tank D-307 | VOC | 0.05 | 0.25 |
| D398 | Gasoline Tank D-398 | VOC | 4.56 | 0.22 |
| D399 | Diesel Tank D-399 | VOC | 0.02 | 0.01 |
| D2307 | Methanol Tank D-2307 | VOC | 0.05 | 0.25 |
| D3191A | Diesel Tank 3191A | VOC | 0.02 | 0.01 |
| D3191B | Diesel Tank 3191B | VOC | 0.02 | 0.01 |
| D8540 | Caustic Tank | NaOH | 0.01 | 0.01 |
| Flare | Flare (5) (9) Steady State Operation | CO (8) | 627.03 | 81.46 |
| | | $H_2S$ | 13.05 | 5.40 |
| | | $NO_x$ (8) | 73.12 | 9.50 |
| | | $SO_2$ (8) | 3527.58 | 311.31 |
| | | TRS 53.48 | 9.89 | |
| | | VOC 40.86 | 5.21 | |
| | | $H_2SO_4$ 60.84 | 32.12 | |

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AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| | Flare Startup, Shutdown, and Maintenance | CO (8) | 627.03 | 81.46 |
| | | $H_2S$ | 67.74 | 1.43 |
| | | $NO_x$ (8) | 73.12 | 9.50 |
| | | $SO_2$ (8) | 8779.58 | 176.33 |
| | | TRS 188.71 | 4.01 | |
| | | VOC 124.31 | 3.21 | |
| H202 | Heat Transfer Fluid Heater (31 MMBtu/hr) | CO | 2.59 | 11.32 |
| | | $NO_x$ | 3.08 | 13.48 |
| | | $PM_{10}$ 0.23 | 1.02 | |
| | | $SO_2$ | 0.02 | 0.08 |
| | | VOC | 0.17 | 0.74 |
| H401/H402 | Sulfur Heater/Methane Heater (7) | CO | 1.32 | 5.77 |
| | | $NO_x$ | 1.61 | 7.04 |
| | | $PM_{10}$ | 0.11 | 0.52 |
| | | $SO_2$ 0.01 | 0.05 | |
| | | VOC | 0.09 | 0.38 |
| H501/H502 | Sulfur Heater/Methane (7) | CO | 1.32 | 5.77 |
| | | $NO_x$ | 1.61 | 7.04 |
| | | $PM_{10}$ | 0.11 | 0.52 |
| | | $SO_2$ 0.01 | 0.05 | |
| | | VOC | 0.09 | 0.38 |
| H2202 | Heat Transfer Fluid Heater (31 MMBtu/hr) | CO | 2.59 | 11.32 |
| | | $NO_x$ | 3.08 | 13.48 |
| | | $PM_{10}$ 0.23 | 1.02 | |
| | | $SO_2$ | 0.02 | 0.08 |
| | | VOC 0.17 | 0.74 | |
| INCIN | Incinerator | CO | 2.03 | 8.90 |
| | | $H_2S$ 0.10 | 0.42 | |
| | | $NO_x$ 1.57 | 6.87 | |
| | | $PM_{10}$ | 0.89 | 3.90 |
| | | $SO_2$ | 139.00 | 84.66 |
| | | VOC 0.37 | 1.61 | |
| | | TRS 0.36 | 1.56 | |
| S-1 | Sulfur Storage Tank | $H_2S$ | 0.23 | 1.00 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| | | $SO_2$ 0.86 | 3.75 | |
| | | TRS 0.23 | 1.00 | |
| S-2 | Sulfur Pit | $H_2S$ | 0.04 | 0.02 |
| | | $SO_2$ 0.17 | 0.09 | |
| | | TRS 0.04 | 0.02 | |
| S-3 | Sulfur Truck | $H_2S$ | 0.02 | 0.01 |
| | | $SO_2$ 0.07 | 0.04 | |
| | | TRS 0.02 | 0.01 | |
| SULFOX-CT | Sulfox Cooling Tower | $PM_{10}$ | 0.04 | 0.18 |
| | | VOC 0.43 | 1.89 | |
| SULFOX-INH | Bagfilter | $PM_{10}$ | 0.08 | 0.01 |
| SULFOX-TO | Thermal Oxidizer Steady State Service | CO (8) | 6.14 | 26.89 |
| | | $NO_x$ (8) | 4.50 | 19.71 |
| | | $PM_{10}$ | 3.65 | 12.76 |
| | | $SO_2$ (8) | 19.49 | 9.09 |
| | | TRS 0.02 | 0.01 | |
| | | VOC 6.11 | 14.48 | |
| | Thermal Oxidizer Startup, Shutdown, and Maintenance | CO (8) | 9.56 | 41.87 |
| | | $NO_x$ (8) | 8.35 | 36.57 |
| | | $PM_{10}$ | 1.95 | 8.54 |
| | | $SO_2$ (8) | 1156.47 | 1.55 |
| | | TRS 0.89 | 0.02 | |
| | | VOC 7.84 | 29.28 | |
| WWTP | Wastewater Treatment Plant | $H_2S$ | 0.05 | 0.20 |
| | | VOC | 0.12 | 0.50 |
| X-426A | Steam Boiler (15.8 MMBtu/hr) | CO | 1.33 | 5.81 |
| | | $NO_x$ | 2.05 | 9.00 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| | | $PM_{10}$ | 0.12 | 0.53 |
| | | $SO_2$ | 0.01 | 0.04 |
| | | VOC | 0.09 | 0.38 |
| X-426B | Steam Boiler (15.8 MMBtu/hr) | CO | 1.33 | 5.81 |
| | | $NO_x$ | 2.05 | 9.00 |
| | | $PM_{10}$ | 0.12 | 0.53 |
| | | $SO_2$ | 0.01 | 0.04 |
| | | VOC | 0.09 | 0.38 |
| ACRO-Fug | Acrolein Process Fugitives (4) | VOC | 0.19 | 0.85 |
| ACRO-TksFug | Acrolein Storage Tanks Fugitives (4) | VOC | 0.01 | 0.05 |
| ACRO-WWFug | Acrolein Wastewater Fugitives (4) | VOC | 0.01 | 0.01 |
| BMT-1E/T | Fugitives (4) (6) | $H_2S$ | 0.01 | 0.01 |
| | Train 1 - EtSH or | TRS | 0.01 | 0.01 |
| | TBM Production | VOC | 0.30 | 0.07 |
| BMT-1M | Fugitives (4) (6) | $H_2S$ | 0.01 | 0.04 |
| | Train 1 - MeSH Production | TRS | 0.02 | 0.07 |
| | | VOC | 0.05 | 0.22 |
| BMT-2M | Fugitives (4) | $H_2S$ | 0.01 | 0.05 |
| | Train 2 - MeSH Production | TRS | 0.02 | 0.09 |
| | | VOC | 0.08 | 0.33 |
| DMDS | Dimethyl Disulfide Area | TRS | 0.06 | 0.24 |
| | Process Fugitives (4) | VOC | 0.06 | 0.24 |
| DMS | Dimethyl Sulfide Area | TRS | 0.02 | 0.10 |
| | Process Fugitives (4) | VOC | 0.02 | 0.10 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| DMS Retro-Fug | DMS Retrofit Process Fugitives | VOC | 0.01 | 0.01 |
| | | $H_2S$ | 0.01 | 0.01 |
| | | TRS 0.01 | 0.02 | |
| F-1 | $H_2S$ Plant Process Fugitives (4) | $H_2S$ | 0.01 | 0.01 |
| | | TRS | 0.01 | 0.01 |
| | | VOC 0.01 | 0.01 | |
| FlareFug | Flare Area Fugitives (4) | VOC | 0.01 | 0.01 |
| Fug-Incin | Incinerator Process Fugitives (4) | $H_2S$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| MMP-Fug | MMP Process Area Fugitives (4) | VOC | 0.01 | 0.06 |
| MMPRC-Fug | MMP Railcar Loading Area Process Fugitives (4) | VOC | 0.04 | 0.15 |
| MMPtks-Fug | MMP Storage Area Process Fugitives (4) | VOC | 0.01 | 0.02 |
| PR-Tower | Product Recovery Tower Fugitives (4) | $H_2S$ | 0.01 | 0.01 |
| | | TRS | 0.01 | 0.01 |
| | | VOC | 0.02 | 0.10 |
| RCSHIP | Fugitives Railcar Loading/Unloading (4) | TRS | 0.03 | 0.11 |
| | | VOC | 0.03 | 0.11 |
| RUNDOWN | Rundown Tank Fugitives (4) | $H_2S$ | 0.01 | 0.01 |
| | | TRS | 0.11 | 0.46 |
| | | VOC | 0.11 | 0.46 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

| | | | | |
|---|---|---|---|---|
| STORAGE | Fugitives Storage Tanks (4) | TRS | 0.15 | 0.64 |
| | | VOC | 0.16 | 0.69 |
| SulfoxChlr | Sulfox Chiller System (4) | HCFC | 0.01 | 0.01 |
| SWS | Fugitives Sour Water Strippers (4) | $H_2S$ | 0.01 | 0.01 |
| | | TRS | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| TO-Fug | Thermal Oxidizer Process Fugitives (4) | VOC | 0.01 | 0.01 |
| TTSHIP | Fugitives Tank Truck Loading/Unloading (4) | TRS | 0.03 | 0.11 |
| | | VOC | 0.03 | 0.11 |

(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 area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1.
NaOH - sodium hydroxide
$H_2SO_4$ - sulfuric acid
CO - carbon monoxide
$H_2S$ - hydrogen sulfide
$NO_x$ - total oxides of nitrogen
$SO_2$ - sulfur dioxide
TRS - total reduced sulfur. Includes $H_2S$ and sulfur bearing VOC. Excludes $SO_2$
$PM_{10}$ - 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.
HCFC - hydrochlorofluorocarbons

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(5) Steady state operation
(6) The BMT-1 Unit can produce either MeSH, EtSH, or TBM. Therefore, emissions from BMT-1M and BMT-1E/T do not occur simultaneously.
(7) Common exhaust stack
(8) PSD-TX-1016 pollutant
(9) 416 hours per calendar year operation as the backup control device for EPN Sulfox-TO when it is not operating and 416 hours per calendar year for EPN INCIN when it is not operating.

* 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.

Dated September 19, 2006