

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 6289 and PSD-TX-76M8

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<br>Point No. (1)<br>TPY** | Source<br>Name (2)           | Air Contaminant<br>Name (3) | Emission Rates * |       |
|------------------------------------|------------------------------|-----------------------------|------------------|-------|
|                                    |                              |                             | lb/hr            | (4)   |
| S-25                               | SO <sub>2</sub> Storage Tank | SO <sub>2</sub>             | 0.09             | 0.38  |
| BDS-5                              | Barge Dock Scrubber          | VOC                         | 1.03             | 0.71  |
| FG-AN-III                          | Process Fugitives (5)        | NH <sub>3</sub>             | 2.34             | 10.26 |
|                                    |                              | VOC                         | 11.05            | 48.37 |
|                                    |                              | CO 0.01                     | 0.01             |       |
| CT-RX4                             | Cooling Tower                | NH <sub>3</sub>             | 0.59             | 2.56  |
|                                    |                              | VOC                         | 0.59             | 2.56  |
| FG-1                               | Cooling Tower (5)            | NH <sub>3</sub>             | 0.64             | 2.82  |
|                                    |                              | VOC                         | 0.37             | 1.63  |
| FG-1                               | Cooling Tower (6)            | NH <sub>3</sub>             | 1.27             | 5.56  |
|                                    |                              | VOC                         | 0.05             | 0.21  |
| FL-G14                             | CB and I Ammonia Flare       | NH <sub>3</sub>             | 16.56            | 0.16  |
|                                    |                              | CO                          | 7.75             | 2.12  |
|                                    |                              | NO <sub>x</sub>             | 9.19             | 0.33  |
|                                    |                              | SO <sub>2</sub>             | 0.05             | 0.20  |
| FL-G32                             | CB and I Propylene Flare     | CO                          | 2.47             | 2.17  |
|                                    |                              | NO <sub>x</sub>             | 1.24             | 0.26  |
|                                    |                              | VOC 3.89                    | 0.10             |       |
|                                    |                              | SO <sub>2</sub>             | 0.01             | 0.06  |
| FL-G33                             | Barge Dock Ammonia Flare     | NH <sub>3</sub>             | 0.10             | 0.01  |
|                                    |                              | CO                          | 0.15             | 0.44  |
|                                    |                              | NO <sub>x</sub>             | 0.14             | 0.06  |

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|---------------------------|------------------------------------|-----------------------------|--------------------------------------|--------|
| <u>TPY**</u>              |                                    |                             |                                      |        |
| FL-G34                    | Barge Dock Propylene Flare         | SO <sub>2</sub>             | 0.05                                 | 0.20   |
|                           |                                    | CO                          | 2.04                                 | 0.80   |
|                           |                                    | NO <sub>x</sub>             | 0.40                                 | 0.10   |
|                           |                                    | SO <sub>2</sub>             | 0.05                                 | 0.20   |
|                           |                                    | VOC                         | 2.77                                 | 0.31   |
| FL-G4                     | Process Flare                      | CO                          | 10.66                                | 20.98  |
|                           |                                    | NO <sub>x</sub>             | 2.80                                 | 4.27   |
|                           |                                    | SO <sub>2</sub>             | 0.28                                 | 0.76   |
|                           |                                    | VOC                         | 12.91                                | 9.45   |
| FL-G4A                    | Ammonia Flare                      | NH <sub>3</sub>             | 0.92                                 | 0.13   |
|                           |                                    | CO                          | 4.13                                 | 2.22   |
|                           |                                    | NO <sub>x</sub>             | 1.32                                 | 0.34   |
|                           |                                    | SO <sub>2</sub>             | 0.11                                 | 0.07   |
| FL-G5                     | Hydrogen Cyanide (HCN) Flare       | CO                          | 4.77                                 | 6.73   |
|                           |                                    | NO <sub>x</sub>             | 0.83                                 | 1.98   |
|                           |                                    | SO <sub>2</sub>             | 0.31                                 | 0.91   |
|                           |                                    | VOC                         | 1.09                                 | 4.76   |
| G-2                       | Quench Water Clarifier Scrubber    | VOC                         | 1.25                                 | 0.08   |
|                           |                                    | Acetone                     | 0.01                                 | 0.01   |
| CH-4                      | Catalyst Handling System           | PM <sub>10</sub>            | 0.96                                 | 4.20   |
| H-4A and B                | AOGIB No. 1 and No. 2 (7)          | NH <sub>3</sub>             | --                                   | 17.80  |
|                           | Absorber Off-Gas                   | CO                          | --                                   | 131.00 |
|                           | Incinerator/Boiler No. 1 and No. 2 | NO <sub>x</sub>             | --                                   | 630.80 |
|                           | <b>Combined Annual Limits</b>      | PM <sub>10</sub>            | --                                   | 18.60  |
|                           |                                    | SO <sub>2</sub>             | --                                   | 7.60   |
|                           |                                    | VOC                         | --                                   | 24.97  |

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|---------------------------|------------------------------------|-----------------------------|-------------------------|--------|
|                           |                                    |                             | lb/hr (4)               |        |
| <u>TPY**</u>              |                                    |                             |                         |        |
| H-4A and B                | AOGIB No. 1 and No. 2              | NH <sub>3</sub>             | 2.03                    | --     |
|                           | Absorber Off-Gas                   | CO                          | 105.00                  | --     |
|                           | Incinerator/Boiler No. 1 and No. 2 | NO <sub>x</sub>             | 150.00                  | --     |
|                           | Maximum hourly rate each           | PM <sub>10</sub>            | 2.10                    | --     |
|                           |                                    | SO <sub>2</sub>             | 0.90                    | --     |
|                           |                                    | VOC                         | 9.46                    | --     |
|                           |                                    |                             |                         |        |
| H-4C                      | AOGIB No. 3                        | NH <sub>3</sub>             | 1.10                    | 4.70   |
|                           | Absorber Off-Gas                   | CO                          | 63.00                   | 9.70   |
|                           | Incinerator/Boiler No. 3           | NO <sub>x</sub>             | 90.00                   | 119.60 |
|                           |                                    | PM <sub>10</sub>            | 1.30                    | 5.58   |
|                           |                                    | SO <sub>2</sub>             | 0.40                    | 1.90   |
|                           |                                    | VOC                         | 2.49                    | 4.78   |
|                           |                                    |                             |                         |        |
| H4-D                      | AOGIB No. 4                        | NH <sub>3</sub>             | 6.67                    | 29.20  |
|                           | Absorber Off-Gas                   | CO                          | 8.80                    | 38.40  |
|                           | Incinerator/Boiler No. 4           | NO <sub>x</sub>             | 72.10                   | 236.80 |
|                           |                                    | PM <sub>10</sub>            | 2.55                    | 9.29   |
|                           |                                    | SO <sub>2</sub>             | 0.19                    | 0.84   |
|                           |                                    | VOC                         | 6.84                    | 13.14  |
|                           |                                    |                             |                         |        |
| RRS-6                     | Railcar Vent Scrubber              | VOC                         | 0.37                    | 0.07   |
| S-11B                     | AN Rundown Tank (8)                | VOC                         | 0.49                    |        |
| S-11C                     | AN Rundown Tank (8)                | VOC                         | 0.49                    |        |
| S-11B and C               | AN Rundown Tanks (8)               | VOC                         |                         | 1.49   |
|                           | Combined Annual Limits             |                             |                         |        |
| S-12A                     | AN Product Tank (8)                | VOC                         | 0.64                    |        |
| S-12B                     | AN Product Tank (8)                | VOC                         | 0.64                    |        |

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|---|--|-----------------------------|-------------------------|------|
|   |  |                             | lb/hr                   | (4)  |
| S-12D                                     | AN Product Tank (8)  | VOC                         | 0.64                    |      |
| S-12A, B, and D                           | AN Product Tanks (8)<br><b>Combined Annual Limits</b>              | VOC                         |                         | 3.84 |
| S-12C                                     | AN Product Tank (6)  | VOC                         | 0.37                    | 1.38 |
| S-21                                      | Catalyst Trap  | PM <sub>10</sub>            | 0.06                    | 0.26 |
| S-22                                      | Bag Filter   | PM <sub>10</sub>            | 0.01                    | 0.03 |
| S-9A                                      | Crude/Off Spec. AN Tank A (8)                                      | VOC                         | 0.61                    |      |
| S-9B                                      | Crude/Off Spec. AN Tank B (8)                                      | VOC                         | 0.61                    |      |
| S-9A and S-9B                             | Crude/Off Spec. Tanks A and B<br>Maintenance Emissions (8)         | VOC                         | 14.13                   |      |
| S-9A and S-9B                             | Crude/Off Spec. Tanks A and B (8)<br><b>Combined Annual Limits</b> | VOC                         |                         | 2.49 |
| WW-1                                      | Waste Water Treatment  | VOC                         | 0.21                    | 0.50 |
| WW-2                                      | Oxazole Regen Tank   | VOC                         | 0.21                    | 0.50 |

- (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) PM<sub>10</sub> - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide  
CO - carbon monoxide  
NH<sub>3</sub> - ammonia

- (4) Hourly emissions are based on clock hour averages
- (5) These emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (6) These facilities are authorized by permit by rule and are included for reference. **(12/06)**
- (7) Annual emissions for AOGIBs No. 1 and No. 2 are combined because of the waste streams used for fuel and allow for the possibility that more of the waste streams may be fired in one boiler than the other.
- (8) The hourly rate is maximum for each tank and an annual rate is the combined total for all similar tank

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

\_\_\_\_\_ Hrs/day \_\_\_\_ Days/week \_\_\_\_ Weeks/year or 8,760 Hrs/year

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

Dated September 27, 2007