

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 751 and PSD-TX-987

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) | Source<br>Name (2)                        | Air Contaminant<br>Name (3) | Emission Rates * |           |
|---------------------------|---|-----------------------------|------------------|-----------|
|                           |   |                             | lb/hr            | TPY **    |
| 35-HR-5                   | HR-I Preheater                            | NO <sub>x</sub>             | 9.60             | 40.47     |
|                           |   | SO <sub>2</sub> (PSD)       | 58.56***         | 130.76*** |
|                           |   | CO 5.65                     | 23.81            |           |
|                           |   | PM <sub>10</sub> 0.51       | 2.15             |           |
|                           |   | VOC 0.37                    | 1.56             |           |
| 36-HR-5                   | HR-II Preheater                           | NO <sub>x</sub>             | 9.60             | 40.47     |
|                           |   | SO <sub>2</sub> (PSD)       | 58.56***         | 130.76*** |
|                           |   | CO 5.65                     | 23.81            |           |
|                           |   | PM <sub>10</sub> 0.51       | 2.15             |           |
|                           |   | VOC 0.37                    | 1.56             |           |
| 38-HR-5                   | HR-III Preheater                          | NO <sub>x</sub>             | 9.60             | 40.47     |
|                           |   | SO <sub>2</sub> (PSD)       | 0.94             | 3.97      |
|                           |   | CO 5.65                     | 23.81            |           |
|                           |   | PM <sub>10</sub> 0.51       | 2.15             |           |
|                           |   | VOC 0.37                    | 1.56             |           |
| 35-HR-11                  | HR-I Short Stack<br>(Start-up Emissions)  | NO <sub>x</sub>             | 30.83            | 6.08      |
|                           |   | SO <sub>2</sub> (PSD)       | 1.54             | 0.30      |
|                           |   | CO 9.25                     | 1.82             |           |
|                           |   | PM <sub>10</sub> 0.84       | 0.16             |           |
|                           |   | VOC 0.61                    | 0.12             |           |
| 36-HR-11                  | HR-II Short Stack<br>(Start-up Emissions) | NO <sub>x</sub>             | 30.83            | 6.08      |
|                           |   | SO <sub>2</sub> (PSD)       | 1.54             | 0.30      |
|                           |   | CO 9.25                     | 1.82             |           |
|                           |   | PM <sub>10</sub> 0.84       | 0.16             |           |
|                           |   | VOC 0.61                    | 0.12             |           |

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## AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)                         | Air Contaminant<br>Name (3)          | <u>Emission Rates *</u> |        |
|---------------------------|--|--------------------------------------|-------------------------|--------|
|                           |  |                                      | lb/hr                   | TPY ** |
| 38-HR-11                  | HR-III Short Stack<br>(Start-up Emissions) | NO <sub>x</sub>                      | 30.83                   | 6.08   |
|                           |  | SO <sub>2</sub> (PSD)                | 1.54                    | 0.30   |
|                           |  | CO                                   | 9.25                    | 1.82   |
|                           |  | PM <sub>10</sub>                     | 0.84                    | 0.16   |
|                           |  | VOC                                  | 0.61                    | 0.12   |
| HR-8                      | HR Davy Stack                              | H <sub>2</sub> SO <sub>4</sub> (PSD) | 28.13                   | 98.55  |
|                           |  | NO <sub>x</sub>                      | 66.11                   | 242.50 |
|                           |  | SO <sub>2</sub> (PSD)                | 434.9                   | 1769.6 |
|                           |  | CO                                   | 5.25                    | 18.4   |
|                           |  | PM <sub>10</sub>                     | 5.58                    | 24.44  |
| TS-1                      | Test Stack for HR-1 Furnace (4)            | VOC                                  | 4.04                    | 17.68  |
|                           |  | NO <sub>x</sub>                      |                         | 42.00  |
|                           |  | CO                                   | 10.00                   | 0.72   |
| 96631                     | H <sub>2</sub> SO <sub>4</sub> Tank        | H <sub>2</sub> SO <sub>4</sub> (PSD) | <0.01                   | <0.01  |
| 96632                     | H <sub>2</sub> SO <sub>4</sub> Tank        | H <sub>2</sub> SO <sub>4</sub> (PSD) | <0.01                   | <0.01  |
| 35630                     | Primene Salt Tank                          | NH <sub>3</sub>                      | 0.14                    | 0.001  |

- (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) NO<sub>x</sub> - total oxides of nitrogen  
 SO<sub>2</sub> - sulfur dioxide  
 CO - carbon monoxide  
 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. PM<sub>10</sub> does not include H<sub>2</sub>SO<sub>4</sub> condensibles.  
 NH<sub>3</sub> - anhydrous ammonia  
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1.  
 H<sub>2</sub>SO<sub>4</sub> - sulfuric acid

(4) This is a Test Stack for initial 15 day testing of HR-1 Furnace

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\* 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

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

\*\*\* Proposed SO<sub>2</sub> emissions from preheaters 35-HR-5 and 36-HR-5 are based on each firing the maximum quantity of B-3 flare gas. The allowable SO<sub>2</sub> emission rates listed in the table are not additive, but represent a combined maximum for both preheaters.

Dated August 6, 2004