

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 8052

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

| <u>Emission<br/>*</u><br>Point No. (1) | <u>Source<br/>Name (2)</u>                            | <u>Air Contaminant<br/>Name (3)</u> | <u>Emission<br/>lb/hr</u> | <u>Rates<br/>TPY</u> |
|--|---|-------------------------------------|---------------------------|----------------------|
| 107                                    | Ammonia PSV   | Emergency Relief                    |                           |                      |
| 138                                    | Multipurpose Spray Dryer and<br>Baghouse FC/FD-11-038 | SO <sub>2</sub>                     | 0.04                      | 0.01                 |
|  |   | CO                                  | 0.39                      | 1.71                 |
|  |   | Combustion TOC                      | 0.06                      | 0.28                 |
|  |   | NO <sub>x</sub>                     | 1.54                      | 6.75                 |
|  |   | Methanol                            | 1.714                     | 7.51                 |
|  |   | Formaldehyde                        | 0.580                     | 2.54                 |
|  |   | Product PM <sub>10</sub>            | 1.881                     | 8.24                 |
|  |   | Combustion PM <sub>10</sub>         | 0.15                      | 0.66                 |
| 151                                    | Ammonia Scrubber                                      | NH <sub>3</sub>                     | 19.70                     | 43.45                |
|  |   | VOC                                 | 2.28                      | 10.00                |
|  |   | CO                                  | 0.15                      | 0.03                 |
| 172                                    | Hydrogen Cyanide<br>Scrubber                          | HCN                                 | 0.0005                    | 0.002                |
| 185                                    | Flash Dryer   | PM <sub>10</sub>                    | <0.01                     | <0.01                |
|  |   | SO <sub>2</sub>                     | <0.01                     | <0.01                |
|  |   | CO                                  | <0.01                     | 0.03                 |
|  |   | VOC                                 | <0.01                     | <0.01                |
|  |   | NO <sub>x</sub>                     | 0.04                      | 0.16                 |
| 203                                    | H <sub>2</sub> SO <sub>4</sub> Tank                   | H <sub>2</sub> SO <sub>4</sub>      | 0.01                      | 0.01                 |
| 225                                    | HCN Surge Tank  | Emergency Relief                    |                           |                      |
| 232                                    | Flash Dryer   | PM <sub>10</sub>                    | <0.01                     | <0.01                |

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|--------------------------------|-----------------------------------|-----------------------------|----------------|--------|
|                                |                                   |                             | lb/hr          | TPY    |
|                                |                                   | SO <sub>2</sub>             | <0.01          | <0.01  |
|                                |                                   | CO                          | <0.01          | 0.02   |
|                                |                                   | VOC                         | <0.01          | <0.01  |
|                                |                                   | NO <sub>x</sub>             | 0.02           | 0.10   |
| 237                            | Hydrogen Cyanide Tank<br>Scrubber | HCN                         | 0.0505         | 0.0124 |
| 239                            | Formaldehyde P/V Vent             | Emergency Relief            |                |        |
| 242                            | Ammonia Tank                      | Emergency Relief            |                |        |
| 245                            | Formaldehyde Tank<br>Scrubber     | CH <sub>2</sub> O           | 0.11           | 0.031  |
|                                |                                   | VOC (5)                     | 0.26           | 1.14   |
|                                |                                   | CO                          | 0.01           | 0.044  |
| 262                            | Amine Scrubber                    | VOC                         | 0.02           | 0.02   |
| 407                            | DAXAD Tank                        | VOC                         | 0.01           | 0.01   |
| 430                            | Spray Dryer                       | PM <sub>10</sub>            | 2.40           | 10.51  |
|                                |                                   | SO <sub>2</sub>             | 0.01           | 0.03   |
|                                |                                   | CO                          | 4.10           | 16.00  |
|                                |                                   | NO <sub>x</sub>             | 2.35           | 10.29  |
|                                |                                   | CH <sub>2</sub> O           | 0.98           | 4.29   |
|                                |                                   | VOC(5)                      | 21.77          | 92.42  |
| 442                            | DAXAD Tank                        | VOC                         | 0.01           | 0.01   |
| 443                            | DAXAD Tank                        | VOC                         | 0.01           | 0.01   |
| 444                            | DAXAD Tank                        | VOC                         | 0.01           | 0.01   |
| 513                            | Vent Catch                        | Emergency Relief            |                |        |
| 516                            | Utility Tank                      | VOC                         | 0.01           | 0.01   |

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|--------------------------------|------------------------|-----------------------------|----------------|-------|
|                                |                        |                             | lb/hr          | TPY   |
| 531                            | DAXAD Tank             | VOC                         | 0.01           | 0.01  |
| 546                            | Fluid Bed Dryer        | VOC (5)                     | 8.22           | 35.00 |
|                                |                        | NO <sub>x</sub>             | 0.91           | 4.00  |
|                                |                        | SO <sub>2</sub>             | 0.01           | 0.011 |
|                                |                        | PM <sub>10</sub>            | 0.53           | 2.321 |
|                                |                        | CO                          | 0.68           | 3.00  |
|                                |                        | CH <sub>2</sub> O           | 0.10           | 0.44  |
| 566                            | Naphthalene Tank       | VOC                         | 0.330          | 1.45  |
| 568                            | Filter Aid Tank        | PM <sub>10</sub>            | 0.0513         | 0.224 |
| 569                            | Cake Wash Tank         | VOC                         | 0.01           | 0.01  |
| 571                            | Prod. Receiver         | Emergency Relief            |                |       |
| 572                            | Pre-Filter             | Emergency Relief            |                |       |
| 573                            | Filter Press           | Emergency Relief            |                |       |
| 598                            | DAXAD Thermal Oxidizer | CH <sub>2</sub> O           | 0.059          | 0.238 |
|                                |                        | VOC (5)                     | 0.964          | 3.90  |
|                                |                        | PM <sub>10</sub>            | 0.06           | 0.26  |
|                                |                        | SO <sub>2</sub>             | 0.003          | 0.013 |
|                                |                        | CO                          | 0.17           | 0.54  |
|                                |                        | Combustion VOC              | 0.03           | 0.13  |
|                                |                        | NO <sub>x</sub>             | 0.50           | 2.19  |
| 723                            | East Cooling Tower     | VOC                         | 0.01           | 0.01  |
| 772                            | Cooling Tower          | VOC                         | 0.01           | 0.01  |

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|--------------------------------|----------------------|-----------------------------|----------------|--------|
|                                |                      |                             | lb/hr          | TPY    |
| 817                            | Fuel Oil Tank        | VOC                         | 0.0002         | 0.001  |
| 819                            | Firewater Pump       | PM <sub>10</sub>            | 0.26           | 0.0033 |
|                                |                      | SO <sub>2</sub>             | 0.24           | 0.0030 |
|                                |                      | CO                          | 0.80           | 0.0100 |
|                                |                      | VOC                         | 0.29           | 0.0038 |
|                                |                      | NO <sub>x</sub>             | 3.70           | 0.0460 |
| 859                            | Boiler (3 total)     | PM <sub>10</sub>            | 0.37           | 1.62   |
|                                |                      | SO <sub>2</sub>             | 0.05           | 0.20   |
|                                |                      | CO                          | 2.59           | 11.34  |
|                                |                      | VOC                         | 0.22           | 0.98   |
|                                |                      | NO <sub>x</sub>             | 10.35          | 45.34  |
| 895                            | Naphthalene Tank     | VOC                         | 0.162          | 0.711  |
| 1129                           | Glycine Saponifier A | NH <sub>3</sub>             | 1.65           | 0.35   |
|                                |                      | VOC                         | 0.77           | 0.17   |
| 1132                           | Glycine Saponifier B | NH <sub>3</sub>             | 1.65           | 0.35   |
|                                |                      | VOC                         | 0.77           | 0.17   |
| 1134                           | Glycine Saponifier C | NH <sub>3</sub>             | 1.65           | 0.35   |
|                                |                      | VOC                         | 0.77           | 0.17   |
| 1290                           | DSIDA Tank           | VOC                         | <0.01          | <0.01  |
| 1560                           | Purge Liquor Tank    | VOC                         | 0.01           | 0.01   |
| 2820                           | Oxalic Scrubber      | PM <sub>10</sub>            | 0.0084         | 0.037  |
| 2884                           | DAXAD Tank           | VOC                         | 0.01           | 0.01   |
| 2914                           | Naphthalene Tank     | VOC                         | 0.163          | 0.713  |
| 2946                           | Oleum Tank Scrubber  | SO <sub>3</sub>             | 0.001          | 0.002  |
| 4032                           | Lime Silo            | PM <sub>10</sub>            | 0.00023        | 0.0013 |

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|--------------------------------|------------------------------|-----------------------------|----------------|--------|
|                                |                              |                             | lb/hr          | TPY    |
| 4033                           | Lime Slaker                  | PM <sub>10</sub>            | 0.000045       | 0.0002 |
|                                |                              | VOC                         | 0.01           | 0.01   |
| 4034                           | Prefilter Tank               | VOC                         | 0.01           | 0.01   |
| 4035                           | Filter H <sub>2</sub> O Tank | VOC                         | 0.01           | 0.01   |
| 4037                           | Filter Press                 | VOC                         | 0.01           | 0.01   |
| 4038                           | Cake Wash Tank               | VOC                         | 0.01           | 0.01   |
| 4039                           | Product Receiver             | VOC                         | 0.01           | 0.01   |
| 4040                           | Off Spec Tank                | VOC                         | 0.01           | 0.01   |
| 4290                           | Product Receiver             | VOC                         | 0.01           | 0.01   |
| 4338                           | Filter Press                 | VOC                         | 0.01           | 0.01   |
| 5019                           | Bersworth Reactor I          | NH <sub>3</sub>             | 0.93           | 0.17   |
|                                |                              | VOC                         | 0.42           | 0.08   |
| 5319                           | Bersworth Reactor II         | NH <sub>3</sub>             | 0.93           | 0.17   |
|                                |                              | VOC                         | 0.42           | 0.08   |
| 5357                           | DSIDA Centrifuge             | HCN                         | 0.028          | 0.0196 |
| 5361                           | DSIDA Steam Jet              | HCN                         | 0.028          | 0.0196 |
| 6031                           | DAXAD Tank                   | VOC                         | 0.01           | 0.01   |
| 6032                           | DAXAD Tank                   | VOC                         | 0.01           | 0.01   |
| 6033                           | Chelate Storage Tank         | VOC                         | <0.01          | <0.01  |
| 6034                           | DAXAD Tank                   | VOC                         | 0.01           | 0.01   |

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|--------------------------------|----------------------|-----------------------------|----------------|-------|
|                                |                      |                             | lb/hr          | TPY   |
| 6035                           | Chelate Storage Tank | VOC                         | <0.01          | <0.01 |
| 6036                           | NTA-150 Storage Tank | VOC                         | <0.01          | <0.01 |
| 7432                           | CH <sub>2</sub> OPV  | Emergency Relief            |                |       |
| 7600                           | Oleum Tank           | Emergency Relief            |                |       |
| 8000                           | DSIDA Storage Tank   | VOC                         | <0.01          | <0.01 |
| Fugitives                      | Fugitives (4)        | VOC                         | 0.26           | 1.14  |
|                                |                      | NH <sub>3</sub>             | 0.06           | 0.26  |

(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<sub>10</sub> - particulate matter less than 10 microns

VOC - volatile organic compounds as defined in General Rule 101.1

NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

SO<sub>3</sub> - sulfur trioxide

CO - carbon monoxide

HCN - hydrogen cyanide

CH<sub>2</sub>O - formaldehyde

NH<sub>3</sub> - ammonia

H<sub>2</sub>SO<sub>4</sub> - sulfuric acid

TOC - total organic carbon

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

(5) Volatile organic compounds exclusive of formaldehyde.

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

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|----------------------------|--------------------|-----------------------------|-------------------------|-----|
| (1)                        |                    |                             |                         |     |

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

Dated \_\_\_\_\_