

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 9627

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) | <u>Emission Rates *</u> |            |
|---------------------------|---|-----------------------------|-------------------------|------------|
|                           |   |                             | <u>lb/hr</u>            | <u>TPY</u> |
| PF-1                      | Revolatilizing<br>Furnace-1 Baghouse                  | PM <sub>10</sub>            | 0.307                   | 1.237      |
|                           |   | VOC                         | 0.007                   | 0.031      |
|                           |   | NO <sub>x</sub>             | 0.185                   | 0.810      |
|                           |   | SO <sub>2</sub>             | 0.001                   | 0.005      |
|                           |   | CO                          | 0.039                   | 0.170      |
|                           |   | Sb**                        | 0.017                   | 0.067      |
| PF-2                      | Revolatilizing<br>Furnace-1 Baghouse                  | PM <sub>10</sub>            | 0.352                   | 1.420      |
|                           |   | VOC                         | 0.007                   | 0.031      |
|                           |   | NO <sub>x</sub>             | 0.185                   | 0.810      |
|                           |   | SO <sub>2</sub>             | 0.001                   | 0.005      |
|                           |   | CO                          | 0.039                   | 0.170      |
|                           |   | Sb**                        | 0.019                   | 0.077      |
| PF-3                      | Cupola Furnace Baghouse                               | PM <sub>10</sub>            | 0.307                   | 1.237      |
|                           |   | VOC                         | 0.004                   | 0.018      |
|                           |   | NO <sub>x</sub>             | 0.109                   | 0.477      |
|                           |   | SO <sub>2</sub>             | <0.001                  | 0.003      |
|                           |   | CO                          | 0.023                   | 0.100      |
|                           |   | Sb**                        | 0.017                   | 0.067      |
| PF-4                      | Cupola Furnace Baghouse                               | PM <sub>10</sub>            | 0.278                   | 1.122      |
|                           |   | VOC                         | 0.004                   | 0.018      |
|                           |   | NO <sub>x</sub>             | 0.109                   | 0.477      |
|                           |   | SO <sub>2</sub>             | <0.001                  | 0.003      |
|                           |   | CO                          | 0.023                   | 0.100      |
|                           |   | Sb**                        | 0.015                   | 0.061      |
| PF-5                      | Revolatilizing<br>Furnace-3 Cartridge Filter<br>0.062 | PM <sub>10</sub>            | 0.651                   | 2.623      |
|                           |   | VOC                         |                         | 0.014      |
|                           |   | NO <sub>x</sub>             | 0.370                   | 1.619      |
|                           |   | SO <sub>2</sub>             | 0.002                   | 0.010      |

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| Emission<br>Point No. (1) | Source<br>Name (2)                      | Air Contaminant<br>Name (3) | Emission Rates * |       |
|---------------------------|---|-----------------------------|------------------|-------|
|                           |   |                             | lb/hr            | TPY   |
| PF-6                      | MS4 Classifier Baghouse                 | CO                          | 0.078            | 0.340 |
|                           |   | Sb**                        | 0.035            | 0.142 |
|                           |   | PM <sub>10</sub>            | 0.246            | 0.493 |
|                           |   | Sb**                        | 0.013            | 0.054 |
| PF-7                      | MS5 Classifier Baghouse                 | PM <sub>10</sub>            | 0.486            | 0.972 |
|                           |   | Sb**                        | 0.026            | 0.106 |
| HF-1                      | North Fullers Blast<br>Furnace Baghouse | PM <sub>10</sub>            | 0.774            | 3.121 |
|                           |   | VOC                         | 0.004            | 0.018 |
|                           |   | NO <sub>x</sub>             | 0.083            | 0.333 |
|                           |   | SO <sub>2</sub>             | <0.001           | 0.002 |
|                           |   | CO                          | 0.017            | 0.070 |
|                           |   | Sb**                        | 0.042            | 0.169 |
| HF-2                      | South Fullers Blast<br>Furnace Baghouse | PM <sub>10</sub>            | 1.149            | 4.632 |
|                           |   | VOC                         | 0.004            | 0.018 |
|                           |   | NO <sub>x</sub>             | 0.083            | 0.333 |
|                           |   | SO <sub>2</sub>             | <0.001           | 0.002 |
|                           |   | CO                          | 0.017            | 0.070 |
|                           |   | Sb**                        | 0.062            | 0.250 |
| HF-3                      | Cupola Hygiene Baghouse                 | PM <sub>10</sub>            | 0.740            | 2.990 |
|                           |   | Sb**                        | 0.040            | 0.161 |
| HF-4                      | Auger Packer Baghouse                   | Sb**                        | 0.318            | 1.283 |
| HF-10                     | Crude Oxide Silo<br>Hygiene Baghouse    | Sb**                        | 0.037            | 0.148 |
| HF-11                     | Nauta 1 (Stranding)<br>Baghouse         | Sb**                        | 0.030            | 0.110 |
| HF-12                     | Nauta 2 (Stranding)<br>Baghouse         | Sb**                        | 0.030            | 0.110 |
| CVS-1                     | Old Central Vacuum<br>System Baghouse   | Sb**                        | 0.092            | 0.370 |

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AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)                         | Air Contaminant<br>Name (3) | Emission Rates * |        |
|---------------------------|--|-----------------------------|------------------|--------|
|                           |  |                             | lb/hr            | TPY    |
| CVS-2                     | New Central Vacuum<br>System Baghouse      | Sb**                        | 0.092            | 0.370  |
| SODANTFURN                | Sodium Antimonate<br>Furnace               | PM                          | 0.019            | 0.076  |
|                           |  | VOC                         | 0.010            | 0.039  |
|                           |  | NO <sub>x</sub>             | 0.251            | 1.012  |
|                           |  | SO <sub>2</sub>             | 0.002            | 0.006  |
|                           |  | CO                          | 0.053            | 0.213  |
| HF-15                     | Ongard II Fugitive<br>Baghouse             | PM <sub>10</sub>            | 0.028            | 0.114  |
|                           |  | VOC                         | 0.014            | 0.058  |
|                           |  | NO <sub>x</sub>             | 0.378            | 1.530  |
|                           |  | SO <sub>2</sub>             | 0.002            | 0.009  |
|                           |  | CO                          | 0.079            | 0.320  |
|                           |  | ZnO                         | 0.203            | 0.818  |
|                           |  | MgO                         | 0.304            | 1.227  |
| PF-8                      | Ongard II Mill<br>Baghouse                 | PM <sub>10</sub>            | 0.220            | 0.880  |
| ATCBLR                    | Antimony Trichloride<br>Boiler             | PM                          | 0.002            | 0.010  |
|                           |  | VOC                         | 0.001            | 0.005  |
|                           |  | NO <sub>x</sub>             | 0.033            | 0.133  |
|                           |  | SO <sub>2</sub>             | <0.001           | <0.001 |
|                           |  | CO                          | 0.007            | 0.028  |
| ATCFUG                    | Antimony Trichloride<br>Area Fugitives (4) | Cl <sub>2</sub>             | 0.078            | 0.100  |
|                           |  | Sb**                        | 0.075            | 0.017  |
| WS-1                      | Antimony Trichloride<br>Venturi Scrubber   | Sb**                        | 0.150            | 0.605  |
| PF-9                      | Antimony Sulfide Grinder<br>Baghouse       | Sb**                        | 0.078            | 0.315  |
| HF-20                     | Compounding Plant<br>Baghouse              | Sb**                        | 0.275            | 1.109  |
| HF-21                     | Pilot Plant Baghouse                       | Sb**                        | 0.025            | 0.101  |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)                             | Air Contaminant<br>Name (3) | Emission Rates * |       |
|---------------------------|--|-----------------------------|------------------|-------|
|                           |  |                             | lb/hr            | TPY   |
| HF-22                     | Sodium Antimonate<br>Hygiene Baghouse 2        | PM <sub>10</sub>            | 0.354            | 1.427 |
|                           |  | Sb**                        | 0.019            | 0.077 |
| HF-24                     | Flexkleen Baghouse                             | Zinc Borate                 | 0.070            | 0.283 |
| HF-25                     | Feed Hopper Baghouse                           | Sb**                        | 0.064            | 0.260 |
| HF-26                     | Calciner, Milling, and<br>Classifying Baghouse | PM <sub>10</sub>            | 0.430            | 1.732 |
|                           |  | Sb**                        | 0.023            | 0.094 |
| HF-27                     | Ongard Feed Bin<br>Flexkleen Baghouse          | PM <sub>10</sub>            | 0.03             | 0.12  |
|                           |  |                             |                  |       |
| HF-28                     | Antimony Sulfide Hygiene<br>Baghouse           | Sb                          | 0.071            | 0.285 |
| HF-29                     | Antimony Oxide Hygiene<br>Baghouse             | PM <sub>10</sub>            | 0.589            | 2.375 |
|                           |  | Sb**                        | 0.032            | 0.128 |
| PF-11                     | Milling Baghouse                               | Sb**                        | 0.142            | 0.571 |
| SAF-2                     | Calciner Furnace                               | PM <sub>10</sub>            | 0.030            | 0.121 |
|                           |  | VOC                         | 0.013            | 0.053 |
|                           |  | NO <sub>x</sub>             | 0.251            | 1.011 |
|                           |  | SO <sub>2</sub>             | 0.002            | 0.006 |
|                           |  | CO                          | 0.053            | 0.212 |
| ZBPLNT1                   | Building Vent 1 (4)                            | Zinc Borate                 | 0.004            | 0.015 |
|                           |  | ZnO                         | 0.019            | 0.077 |
|                           |  | Boric Acid                  | 0.047            | 0.190 |
| ZBPLNT2                   | Building Vent 2 (4)                            | Zinc Borate                 | 0.004            | 0.015 |
|                           |  | ZnO                         | 0.019            | 0.077 |
|                           |  | Boric Acid                  | 0.047            | 0.190 |

|            |                              |                  |        |        |
|------------|------------------------------|------------------|--------|--------|
| ZBPLNT3    | Building Vent 3 (4)          | Zinc Borate      | 0.004  | 0.015  |
|            |                              | ZnO              | 0.019  | 0.077  |
|            |                              | Boric Acid       | 0.047  | 0.190  |
| ZBPLNT4    | Building Vent 4 (4)          | Zinc Borate      | 0.004  | 0.015  |
|            |                              | ZnO              | 0.019  | 0.077  |
|            |                              | Boric Acid       | 0.047  | 0.190  |
| ZNBORBLR   | Zinc Borate Boiler           | PM               | 0.001  | 0.005  |
|            |                              | VOC              | <0.001 | 0.002  |
|            |                              | NO <sub>x</sub>  | 0.015  | 0.061  |
|            |                              | SO <sub>2</sub>  | <0.001 | <0.001 |
|            |                              | CO               | 0.003  | 0.013  |
|            |                              |                  |        |        |
| TF-1       | Transfer System              | PM <sub>10</sub> | 0.184  | 0.740  |
| Slgcrusher | Slag Crusher (4) (5)         | PM               | 0.001  | 0.005  |
|            |                              | PM <sub>10</sub> | 0.001  | 0.005  |
| Slgscreen  | Slag Screen (4) (5)          | PM               | 0.027  | 0.109  |
|            |                              | PM <sub>10</sub> | 0.027  | 0.109  |
| Slgpiles   | Slag Stockpile (4)           | PM               |        | 2.713  |
|            |                              | PM <sub>10</sub> |        | 1.308  |
| AST-1      | Diesel Tank Vent             | VOC              | 0.014  | <0.001 |
| AST1-F     | Diesel Tank System (4)       | VOC              | <0.001 | <0.001 |
| AST-2      | Gasoline Tank Vent           | VOC              | 2.415  | 0.051  |
| AST2-F     | Gasoline Tank System (4)     | VOC              | 0.110  | 0.069  |
| FUGC       | Crude Building (4)           | Sb**             | 0.001  | 0.004  |
| FUGF       | Furnace Building (4)         | Sb**             | 0.001  | 0.004  |
| FUGS       | Sodium Antimony Building (4) | Sb**             |        | <0.001 |

EMISSIONS FROM SOURCE MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

0.001

|      |                           |      |        |        |
|------|---------------------------|------|--------|--------|
| FUGB | Banbury Building (4)      | Sb** | <0.001 | <0.001 |
| FUGN | Inter Warehouse North (4) | Sb** | 0.001  | 0.004  |
| FUGW | Inter Warehouse West (4)  | Sb** | 0.001  | 0.004  |

(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, suspended in the atmosphere, including PM<sub>10</sub>  
 PM<sub>10</sub> - particulate matter less than or equal to 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 General Rule 101.1

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

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

CO - carbon monoxide

Sb - antimony or antimony compound

ZnO - zinc oxide

MgO - magnesium oxide

Cl<sub>2</sub> - chlorine

(4) Fugitive emissions are an estimate only.

(5) Maximum allowable hourly throughput is 40 tons and the maximum annual throughput is 322,560 tons.

\*\* Antimony and/or antimony compound. Where there is a PM<sub>10</sub> allowable listed, the antimony/antimony compound is a portion of the total allowable PM<sub>10</sub> from that emission point.

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

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EMISSIONS SOURCE INFORMATION AND EMISSION RATES

AIR CONTAMINANTS DATA

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

Hrs/day 24 Days/week 7 Weeks/year 48 or  
Hrs/year 8,064

Dated \_\_\_\_\_