#### Permit Number 898

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, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

| Emission Point No. (1)                         | Source Name (2)                     | Air Contaminant Name (3) | Emission Rates (10) |         |
|--|-------------------------------------|--------------------------|---------------------|---------|
|  |                                     |                          | lbs/hour            | TPY (4) |
| 01, 02, 03, 04, 05, 06, 07, and 08             | Railcar Unloading<br>Baghouse Vents | РМ                       | 1.65                | 7.21    |
|  |                                     | PM <sub>10</sub>         | 1.65                | 7.21    |
|  |                                     | PM <sub>2.5</sub>        | 1.65                | 7.21    |
| 09, 10, 11, 12, 13, 14, 15, and 16             | Raw Material Silo<br>Baghouse Vents | PM                       | 1.65                | 7.21    |
|  |                                     | PM <sub>10</sub>         | 1.65                | 7.21    |
|  |                                     | PM <sub>2.5</sub>        | 1.65                | 7.21    |
| 17, 25, 34, 35, 39, 40, 41, 43, 44, 45, and 50 | Cullet Hood Dust<br>Collector Vents | PM                       | 8.15                | 35.69   |
|  |                                     | PM <sub>10</sub>         | 8.15                | 35.69   |
|  |                                     | PM <sub>2.5</sub>        | 8.15                | 35.69   |
| 18   | Mix House Baghouse<br>Vent          | РМ                       | 0.40                | 1.75    |
|  |                                     | PM <sub>10</sub>         | 0.40                | 1.75    |
|  |                                     | PM <sub>2.5</sub>        | 0.40                | 1.75    |
| 19   | Batch Plant Dust<br>Collector Stack | РМ                       | 0.01                | 0.05    |
|  |                                     | PM <sub>10</sub>         | 0.01                | 0.05    |
|  |                                     | PM <sub>2.5</sub>        | 0.01                | 0.05    |
| 20   | Rouge/Coal Storage<br>Baghouse Vent | PM                       | 0.21                | 0.90    |
|  |                                     | PM <sub>10</sub>         | 0.21                | 0.90    |
|  |                                     | PM <sub>2.5</sub>        | 0.21                | 0.90    |
| 22   | Melting Furnace No.1<br>Stack (9)   | РМ                       | 71.00               | 198.49  |
|  |                                     | PM <sub>10</sub>         | 71.00               | 135.31  |
|  |                                     | PM <sub>2.5</sub>        | 71.00               | 135.31  |

| VOC 1.16 5.08  NO <sub>x</sub> 739.00 894.25  CO 160.00 104.63  SO <sub>2</sub> 80.00 180.27  23 Melting Furnace No.2 Stack (7)  PM 71.00 291.90  PM <sub>10</sub> 71.00 269.12 |  |
|---|--|
| CO 160.00 104.63  SO <sub>2</sub> 80.00 180.27  23 Melting Furnace No.2 PM 71.00 291.90   |  |
| SO <sub>2</sub> 80.00 180.27  23 Melting Furnace No.2 PM 71.00 291.90   |  |
| 23 Melting Furnace No.2 PM 71.00 291.90   |  |
| Stack (7)   |  |
|   |  |
| 1 10110 7 1.00 203.12   |  |
| PM <sub>2.5</sub> 71.00 252.63  |  |
| VOC 1.16 5.08   |  |
| NO <sub>x</sub> 739.00 2947.49  |  |
| CO 160.00 154.83  |  |
| SO <sub>2</sub> 80.00 350.40  |  |
| 22 and 23 Melting Furnaces Nos. 1 and 2 Stacks (6) Cr 0.22 0.96   |  |
| Se 45.00 31.00  |  |
| Co 0.01 0.04  |  |
| Si 19.00 82.00  |  |
| Ni 0.02 0.10  |  |
| Ce 9.00 39.42   |  |
| Ti 2.00 8.80  |  |
| FUG-1 Furnace Fugitives (5) PM 6.40 28.00   |  |
| PM <sub>10</sub> 6.40 28.00   |  |
| PM <sub>2.5</sub> 6.40 28.00  |  |
| NO <sub>x</sub> 31.00 135.78  |  |
| CO 6.70 29.34   |  |
| SO <sub>2</sub> 3.40 14.90  |  |
| Trace Metals 0.10 0.44  |  |

| 00           | O-laws 1  |                     |       |       |
|--------------|---|---------------------|-------|-------|
| 28           | Solarcool<br>Scrubber/SO <sub>2</sub> Exhaust<br>– Line 1 Stack | PM                  | 4.37  | 9.57  |
|              |   | PM <sub>10</sub>    | 4.37  | 9.57  |
|              |   | PM <sub>2.5</sub>   | 4.37  | 9.57  |
|              |   | Со                  | 0.46  | 2.00  |
|              |   | SO <sub>2</sub> (8) | 23.00 | 75.00 |
|              |   | Cr                  | 0.08  | 0.35  |
|              |   | Fe                  | 0.50  | 2.20  |
| 29           | Solarcool Mix Room<br>Baghouse Vent                             | РМ                  | 0.60  | 2.63  |
|              |   | PM <sub>10</sub>    | 0.60  | 2.63  |
|              |   | PM <sub>2.5</sub>   | 0.60  | 2.63  |
| 30, 31       | Line 2 West and East<br>Stacks                                  | SO <sub>2</sub> (8) | 23.00 | 75.00 |
| 32S, 33S     | Line 1 West and East<br>Stacks                                  | SO <sub>2</sub> (8) | 23.00 | 75.00 |
| 36A, 36B, 37 | Process W Line Nos. 1<br>and 2 Stacks                           | РМ                  | 0.42  | 0.63  |
|              |   | PM <sub>10</sub>    | 0.42  | 0.63  |
|              |   | PM <sub>2.5</sub>   | 0.42  | 0.63  |
| 38-1         | Boiler 1 Stack  | РМ                  | 0.49  | 2.15  |
|              |   | PM <sub>10</sub>    | 0.49  | 2.15  |
|              |   | PM <sub>2.5</sub>   | 0.49  | 2.15  |
|              |   | voc                 | 0.11  | 0.49  |
|              |   | NO <sub>x</sub>     | 2.97  | 13.02 |
|              |   | со                  | 1.72  | 7.55  |
|              |   | SO <sub>2</sub>     | 6.88  | 30.12 |
| 38-3         | Boiler 3 Stack  | РМ                  | 0.49  | 2.15  |
|              |   | PM <sub>10</sub>    | 0.49  | 2.15  |
|              |   | PM <sub>2.5</sub>   | 0.49  | 2.15  |

|                                    |   | VOC                 | 0.11  | 0.49  |
|------------------------------------|---|---------------------|-------|-------|
|                                    |   | NO <sub>x</sub>     | 2.97  | 13.02 |
|                                    |   | со                  | 1.72  | 7.55  |
|                                    |   | SO <sub>2</sub>     | 6.88  | 30.12 |
| 46, 47, 48, 49, 52, and 52A        | Automatic Packing and<br>Tempering Vacuum<br>Transfer Vents | РМ                  | 1.20  | 5.26  |
|                                    |   | PM <sub>10</sub>    | 1.20  | 5.26  |
|                                    |   | PM <sub>2.5</sub>   | 1.20  | 5.26  |
| 55, 56, 57, 58, 59, 61, 63, and 68 | Storage Tank Vents<br>for Petroleum-Derived<br>Materials    | VOC                 | 4.16  | 0.18  |
| FUG-2                              | Material Storage and Handling (5)                           | РМ                  | 3.81  | 16.09 |
|                                    | rianding (5)  | PM <sub>10</sub>    | 1.90  | 8.04  |
|                                    |   | PM <sub>2.5</sub>   | 1.90  | 8.04  |
|                                    |   | SO <sub>2</sub> (8) | 23.00 | 75.00 |
|                                    |   | voc                 | 0.21  | 0.94  |
| 77 and 78                          | Tin Bath Vent Stack   | РМ                  | 0.10  | 0.35  |
|                                    |   | PM <sub>10</sub>    | 0.10  | 0.35  |
|                                    |   | PM <sub>2.5</sub>   | 0.10  | 0.35  |
|                                    |   | Sn                  | <0.01 | 0.02  |
| MSVD                               | MSVD Vacuum<br>Chamber Vent                                 | voc                 | 0.09  | 0.33  |
| TPO                                | MSVD TPO Process (5)  | РМ                  | 0.02  | 0.02  |
|                                    |   | PM <sub>10</sub>    | 0.02  | 0.02  |
|                                    |   | PM <sub>2.5</sub>   | 0.02  | 0.02  |
|                                    |   | voc                 | 0.20  | 0.17  |
| BUFF                               | MSVD Buff (5)   | РМ                  | <0.01 | <0.01 |
|                                    |   | PM <sub>10</sub>    | <0.01 | <0.01 |
|                                    |   | PM <sub>2.5</sub>   | <0.01 | <0.01 |
|                                    |   |                     |       |       |

|  | lass Scoring ,<br>peration (5) | voc | 1.14 | 5.00 |
|--|--------------------------------|-----|------|------|
|--|--------------------------------|-----|------|------|

- (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) 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

PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented

 $PM_{10}$  - total particulate matter equal to or less than 10 microns in diameter, including  $PM_{2.5}$ , as

represented

PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

Cr - chromium
Se - selenium
Co - cobalt

Si - amorphous silica

Ni - nickel
Ce - cerium
Ti - titanium
Fe - iron
Sn - tin

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) The emission rates shown for Cr, Co, Ni, Si, Se, Ce, and Ti represent total combined emissions for both Furnace Nos. 1 and 2. The individual emissions rate from each stack can vary such that the sum of the emissions from the stacks of Melting Furnace Nos. 1 and 2 shall not exceed the total amount authorized.
- (7) The emissions have been represented and reviewed as the maximum emissions authorized by Air Quality Standard Permit for Pollution Control Project No. 103006.
- (8) The emission rates shown for SO<sub>2</sub> represent total combined emissions for EPNs 28, 30, 31, 32S, 33S, and FUG-2. The individual emission rate from each stack can vary such that the sum of the emissions from EPNs 28, 30, 31, 32S, 33S, and FUG-2 shall not exceed the total amount authorized.
- (9) The emissions have been represented and reviewed as the maximum emissions authorized by Air Quality Standard Permit for Pollution Control Project No. 83132.

(10) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.

| Date: | September 27, 2017 |
|-------|--------------------|
| Date. | Oopto              |