Include in a whereas that Uroboros has not used Arsenic for at least 20 years and will continue to not use Arsenic.

1. For the purpose of this agreement, the following terms will have the given meanings:
   1. “Chromium III” means chromium in the +3 oxidation state, also known as trivalent chromium;
   2. “Chromium VI” means chromium in the +6 oxidation state, also known as hexavalent chromium;
   3. “Chromium”, without a following roman numeral, means chromium in any oxidation state; and
   4. “Calendar week” means Sunday through Saturday.
2. No later than September 1, 2016, Respondent must install one or more baghouses to control all furnaces that are intended to use cadmium, chromium or lead.
3. Respondent must not use cadmium or chromium VI in any glass-making furnace that is not controlled by a baghouse approved by DEQ.
4. Respondent must limit the use of the Metals Used listed in Table 1 as follows:
   1. This limitation applies to all furnaces that are not controlled by a baghouse approved by DEQ;
   2. In any calendar week, respondent must use no more than the listed Maximum Weekly Usage for that metal;
   3. This limitation applies to the total usage of that metal in all glass-making furnaces that are not controlled by a baghouse approved by DEQ; and
   4. This limitation applies to the amount of the metal itself, not the weight of the compounds that contain the metal.
   5. Respondent must reduce or cease use of the Metals Used as provided in paragraph 6.
5. There are no restrictions on the raw materials that may be used in a glass-making furnace that is controlled by a baghouse approved by DEQ.

Table 1

|  | **Action Levels \*** | |  | **80%** | **60%** | **40%** |
| --- | --- | --- | --- | --- | --- | --- |
| **Metal** | **Reduce Use**  **Level**  **(ng/m3)** | **Stop Use**  **Level**  **(ng/m3)** | **Maximum Weekly Usage, pounds per week** | **Reduction Step 1, pounds per week** | **Reduction Step 2, pounds per week** | **Reduction Step 3, pounds per week** |
| Chromium III | 1.6 | 3.2 |  |  |  |  |
| Lead | 150 | 150 |  |  |  |  |
| Cobalt | 2,000 | 4,000 |  |  |  |  |
| Nickel | 40 | 80 |  |  |  |  |
| Manganese | 1,800 | 3,600 |  |  |  |  |
| Cadmium | 12 | 24 |  |  |  |  |

\*Based on bi weekly rolling average

Reduce Use Level = 20 x DEQ Ambient Benchmarks Concentration except lead, which is the National Ambient Air Quality Standard

Stop Use Level = 40 x DEQ Ambient Benchmarks Concentration except lead, which is the National Ambient Air Quality Standard

In the range of 20-50 times benchmarks for these pollutants is lower than any acute health levels, therefore acceptable to OHA as protective action levels.

1. In the event that bi-weekly averages of ambient monitoring data exceed an Action Level listed in Table 1, Respondent must reduce or stop usage of each metal for which an Action Level was exceeded as specified below:
   1. For the purpose of this paragraph, the following apply:
      1. The term “monitored level” means the bi-weekly average of the ambient monitoring data of the metals listed in Table 1, based on the most recent two weeks of monitoring that pertains to the Respondent’s location; and
      2. The monitored level of chromium VI will apply to the usage of chromium III.
   2. The requirements in this paragraph apply to each metal listed in Table 1 on an individual metal basis. A requirement to reduce or stop usage of one metal does not apply to the other metals; however, the requirement to reduce or stop usage may apply individually to multiple metals.
   3. If the monitored level of any of the metals in Table 1 exceeds the Reduce Use Level, Respondent must reduce the use of the identified metal in uncontrolled furnaces to Reduction Step 1 upon being notified to do so by DEQ. The requirement to reduce usage applies to the calendar week following the calendar week in which notification was given.
   4. If a second consecutive monitored level of any of the metals in Table 1 exceeds the Reduce Use Level, Respondent must reduce the use of the identified metal in uncontrolled furnaces to Reduction Step 2 upon being notified to do so by DEQ. The requirement to reduce usage applies to the calendar week following the calendar week in which notification was given.
   5. If a third consecutive monitored level of any of the metals in Table 1 exceeds the Reduce Use Level, Respondent must reduce the use of the identified metal in uncontrolled furnaces to Reduction Step 3 upon being notified to do so by DEQ. The requirement to reduce usage applies to the calendar week following the calendar week in which notification was given and all following calendar weeks until DEQ provides notification that the monitored level is again below the Reduce Use Level per subparagraph (g.).
   6. If the monitored level of any of the metals in Table 1 exceeds the Stop Use Level, Respondent must stop using the identified metal in uncontrolled furnaces upon being notified to do so by DEQ. The requirement to stop usage applies to the calendar week following the calendar week in which notification was given and all following calendar weeks until DEQ provides notification that the monitored level is again below the Reduce Use Level per subparagraph (g.).
   7. Following any requirement to reduce or stop usage of a metal, Respondent may resume usage of that metal at the Maximum Weekly Usage level of that metal after DEQ provides notification that the monitored level of that metal is again below the Reduce Use Level. Respondent may resume usage in the calendar week following the calendar week in which notification is given and all following calendar weeks until Respondent is required to reduce or stop usage again.
   8. Bi-weekly averages will be calculated using all available ambient monitoring data that pertains to the Respondent’s location, and will be calculated as a rolling two-calendar week average.
2. Baghouse requirements:
   1. The design of all baghouses must be approved by DEQ before installation.
   2. Respondent must submit a Notice of Intent to Construct in accordance with OAR 340-210-0205 through -0250 no later than 15 days prior to the date installation begins. If DEQ does not deny or approve the Notice of Intent to Construct within 10 days of receipt of the Notice, the Notice will be deemed to be approved.
   3. Baghouses may control emissions from more than one furnace
   4. Each baghouse must be equipped with the following:
      1. A differential pressure gauge to monitor pressure drop across the baghouse, and
      2. An inlet temperature gauge.
   5. Each baghouse must be equipped with inlet ducting that provides the following:
      1. Sufficient cooling of exhaust gases to no more than the maximum design inlet temperature under worst-case conditions; and
      2. Provision for inlet emissions testing, including sufficient duct diameter, sample ports, undisturbed flow conditions, and access for testing.
   6. Each baghouse must be equipped with outlet ducting that provides for outlet emissions testing, including sufficient duct diameter, sample ports, undisturbed flow conditions, and access for testing.
   7. After commencing operation of any baghouse, Respondent must observe and record the following at least once per day of operation for each baghouse:
      1. Differential pressure;
      2. Inlet temperature; and
      3. If multiple furnaces are controlled by a baghouse, the number of furnaces in operation at the time observations are made.
3. Requiring Respondent, upon receipt of a written Penalty Demand Notice from DEQ, to pay the following civil penalties…
4. Notwithstanding this agreement, Respondent will be subject to any rules adopted by the Environmental Quality Commission.
5. This agreement shall terminate upon mutual agreement by the parties or five years after it becomes effective, whichever comes first.

|  |
| --- |
| Oroboros v1  Respondent must conduct the following source test no later than 30 calendar days after this agreement becomes effective:  Test one furnace exhaust for chromium VI while the furnace is making a glass formula approved by DEQ, and submit the test report to DEQ within 30 days of completion of the stack sampling.  Test one furnace exhaust for cadmium, while the furnace is making a glass formula approved by DEQ, and submit the test report to DEQ within 30 days of completion of the stack sampling.  Test one furnace exhaust for lead, while the furnace is making a glass formula approved by DEQ, and submit the test report to DEQ within 30 days of completion of the stack sampling.  DEQ will perform dispersion modeling to determine the impact of Respondent’s emissions of chromium VI.  If DEQ determines that Respondent’s emissions exceed the ABC for chromium VI on an annual average basis, then Respondent must install a baghouse on each furnace that will use chromium, as specified in ??????.  If DEQ determines that Respondent’s emissions exceed the ABC for cadmium on an annual average basis, then Respondent must install a baghouse on each furnace that will use cadmium, as specified in ??????.  If DEQ determines that Respondent’s emissions exceed the NAAQS for lead on an annual average basis, then Respondent must install a baghouse on each furnace that will use lead, as specified in ??????.  Etc. etc. etc. |