| **#** | **Option** | **PROs** | **CONs** | **Questions** |
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| **Applicability:** Affected sources are colored glass manufacturing facilities located within the Portland Air Quality Maintenance Area that operate one or more affected emissions units. Affected emissions units are glass manufacturing furnaces in which raw materials that contain compounds of cadmium or chromium are used, excluding furnaces that are heated only with electricity. | | | | |
| R1 | * Rule Option 1: Install baghouse on Cd and Cr furnaces by July 1, 2016 * May operate XX furnace(s) with Cr III and YY furnace(s) with Cd prior to baghouse installation * No use of Cr VI or As * After July 1, 2016, no use of Cd or Cr III in uncontrolled furnaces | * Allows operation until baghouse installed * No source testing or modeling required * Limited operation reduces emissions of Cd and Cr VI | * Don’t know if operating below concentration limit * Public concerns not addressed -additional health impacts * Don’t know ambient impact after baghouse installation | * How many furnaces were running on high concentration days? * How much Cd, Cr, As were used on high concentration days? |
| M1 | * MAO Option 1 : no use of Cd or Cr III until baghouse installed * State to provide financial help * No use of Cr VI or As   Stricter version of Rule Option 1 if used as a rule: No financial help as a rule | * Simple * Provides assurance that Cd and Cr III will not be emitted until baghouse is installed | * Financial help may not be available * Serious business impacts * Don’t know ambient impact after baghouse installation |  |
| R2 | * Rule Option 2: Must source test; show Cr VI is less than concentration TBD with OHA at fenceline before allowed to operate with Chrome III * Must stay below concentration TBD with OHA * Must install baghouse by date certain on all furnaces that use Cd and Cr III:   + After baghouse installed, limit emissions so ambient impact from Cr VI and Cd is less than concentration TBD with OHA; or   + After baghouse installed, no limit on operations * No use of Cr VI or As | * Risk based and limits risk * Allows operation provided concentration limit is met * Source test data | * Requires source testing and modeling * Concentration limit may be impossible to meet without controls * Establishes de facto acceptable risk level * Don’t know if concentration limit can be met even with baghouses |  |
| R3 | * Rule Option 3: Operate with fenceline real time monitors and stay below concentration TBD with OHA * Could use Cr VI or As if below concentration TBD with OHA * Report to DEQ weekly | * Would reassure public * Simple * May not require baghouse | * Monitor expense * Time to deploy monitors * Ongoing monitor expense * Don’t know if they can operate and stay below concentration limit * Establishes de facto acceptable risk level | * Sets statewide precedent? * How do you deal with spikes? |
| M2 | * MAO Option 2: Compare daily use of Cd against monitoring data. If comparison shows no increase in monitored Cd when using Cd, then it’s okay to use up to the amount that shows no ambient impact. * Same for Cr * No use of Cr VI or As | * Presumes glass impact is insignificant * Allows operation up to a certain level | * Do not have data for Cr comparisons * Analysis difficult and open to technical criticism |  |
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|  | Revoke ACDP | * Would reassure public | * Only Bullseye has a permit so revocation would not affect Uroboros * reissuance of a permit would require public notice * could take a minimum of 3 months or longer to reissue, which would probably put Bullseye out of business (appeal?) |  |