July 29, 2016

Interim Director Pete Shepherd
Oregon Department of Environmental Quality
811 SW 6th Avenue, Portland, OR 97204

RE: Comments on Colored Art Glass Manufacturer Rules

Temporary rules pertaining to colored art glass manufacturers (CAGMs) were enacted after USFS moss samples and subsequent ambient air monitoring found elevated levels of heavy metals near two glass manufacturing facilities in the Portland metropolitan area. These rules were designed to address the immediate risk presented by the emissions from these facilities. At the time of the discovery, one of the facilities was operating completely within the scope of their permit, and the other was below the production threshold requiring a permit. This indicated a gap in the regulatory framework designed to protect our air, indicating the need for temporary rules to address the emissions.

These rules are set to become permanent following the close of the public comment period at 11:59 PM on 7/29/16. The following represents the County's input on these rules.

- **The rules should cover the entire state**
  - Currently, these rules apply to facilities within the Portland Air Quality Maintenance Area. This solves the immediate problem locally, but leaves a gap in regulation until permanent rules are put forth through the Cleaner Air Oregon process. We understand that all major producers in the state (of more than 10 TPY) are located within the Portland AQMA, but urge DEQ to move quickly to address emissions from *all* CAGMs in the larger rulemaking process.

- **Any glassmaking furnace charged with heavy metals should be equipped with pollution controls**

  - The proposed rules restrict the use of certain metals in larger facilities, which is intended to decrease risk from airborne exposure to nearby receptors. Specifically, the metals indicated cannot be used in uncontrolled furnaces. They include arsenic, cadmium and chromium(VI). (Lead, nickel, selenium, cobalt and manganese are also restricted at Bullseye, via the company's MAO with DEQ).

- DEQ's own testing indicate that the majority of chromium(III) charged in a glassmaking furnace converts to chromium(VI) in the emissions profile. There should be no acceptable usage of chromium in any uncontrolled furnace, and furthermore, in any controlled furnace that has not demonstrated an adequate removal efficiency that would be protective of public health at the nearest receptor.
- We believe there should be a complete review of materials used by these and other glass facilities to ensure all potentially hazardous air toxics are being addressed through these rules.

- **Chromium should not be permitted in any furnace, with or without pollution controls, until those controls have demonstrated to be effective**
  - The rules allow for DEQ to set a maximum allowable usage rate of chromium(III) in uncontrolled furnaces.
  - Existing (and new stack testing) data indicate that the majority of chromium(III) charged in a glassmaking furnace converts to chromium(VI) in glassmaking emissions. There should be no acceptable usage of chromium in any uncontrolled furnace, and furthermore, in any controlled furnace that has not demonstrated an efficiency of removal at a level that would be protective to public health at the nearest receptor.

- **Facilities producing less than 10 TPY should not be exempt**
  - CAGMs producing less than 10 TPY are under the threshold requirements for these rules.
  - We understand the need to set a reasonable threshold for regulation, but 10 TPY seems like a production rate that could result in unacceptable HAP emissions. Given the proximity of some of these smaller facilities to neighborhoods and human receptors, it seems prudent to lower the threshold to ensure public health is protected. Moss data indicating the presence of heavy metals in the Cully Neighborhood, in close proximity to Glass Alchemy, suggests that lower thresholds are needed. We urge DEQ to take a precautionary approach.

- **Thresholds should be determined through stack emissions testing, not by fuel or furnace type**
  - An electronically fired furnace producing 100 TPY falls under the Tier I threshold, while a fuel fired furnace producing 10 TPY is subject to Tier II requirements. Electrically fired furnaces are understood to have lower "lost material" emission

rates due to their flameless characteristic. However, are these emission reductions in an electronic furnace significant enough to warrant a facility producing 99.9 TPY being characterized a Tier 1, and a similar facility with a gas fired furnace producing 10 TPY being subject to Tier 2 requirements?
    - We urge DEQ to lower the threshold for electronically fired furnaces to a level that would ensure emissions rates do not exceed levels that would be harmful to human health. At a minimum DEQ should verify that the 100 TPY threshold for electrically fired furnaces is consistent with emissions rates from a fuel fired furnace producing 10 TPY and share with the public the evidence used in reaching this conclusion.

- **Close any regulatory gap presented by the applicability of federal NESHAP glass manufacturer rules that are less protective than proposed State rules**
    - All Tier II CAGMs will be subject to applying for Title V operating permits and adherence to NESHAP 6S requirements- which stipulate PCD's on continuous furnaces producing more than 50 TPY.
    - Will this exemption be allowed in Oregon within Title V CAGM permits, or will emission controls be required on all furnaces within Title V facilities charged with HAPs, regardless of individual furnace output?
    - We would again urge DEQ to not allow uncontrolled release of HAPs from any furnace.

- **Specify permitting and operational requirements that will be applied to facilities that are under the applicability thresholds of the proposed CAGM rules**
    - It is unclear what kind of operating requirements will be promulgated as a component of the ACDP's issued to *all* CAGMs not otherwise subject to a permitting requirement beginning September 1, 2016.
    - We understand that these will be part of the rules promulgated under Cleaner Air Oregon, and expect them to be protective of public health.

- **Emissions control devices should be required to conform with best available control technology standards**
    - The requirement outlined in OAR 340-244-9070 states that emissions control devices must meet an efficiency rating of 99% or higher. EPA contends that a properly designed, run and maintained baghouse (an effective PCD for this type of operation) is capable of 99.9% and higher efficiency- this should be the standard required. Additionally, reports of stack testing at Bullseye indicate that

though these devices are highly effective at capturing particulate, they may not be as capable of capturing HAPs such as chromium(VI) when in gas phase. The language in the permanent rule should be amended to require PCDs to achieve maximum efficiency of removal of HAPs of concern, not just particulate efficiency ratings.
    - DEQ should implement further restrictions on the use of chromium compounds if available PCDs are shown to be ineffective at limiting chromium(VI) emissions.

- **Set protective, science based and peer reviewed screening values for chromium compounds**
    - There is significant question on whether the 24 hour screening value chosen is sufficiently protective of public health. Specifically, the 36 ng/m^3 24 hour screening value and its derivation has been a point of contention for the public, who believe it's not protective enough. Of the levels that were surveyed, Ontario recommends a far lower non-cancer endpoint number of 0.35 ng/m^3 for a 24 hour screening value. This will continue to be an issue until a definitive value is ratified and agreed upon by all health agencies, and there will need to have scientific backing for its derivation.
    - In the face of uncertainty we would urge DEQ and OHA to take a precautionary approach and opt for the most conservative chromium III maximum allowable usage rate and most conservative 24 hour screening value until a higher level is justified through scientific review.

- **Ensure that the final rules are protective of public health and the environment**
    - The Policy and Purpose section of these rules states, "It shall be the policy of the Commission that no person may cause, allow, or permit emissions into the ambient air of any hazardous substance in such quantity, concentration, or duration determined by the Commission to be injurious to public health or the environment."
    - We believe this is justification for a strong, health based approach to rulemaking, where industry should be required to prove that its emissions will not negatively impact the health and wellbeing of the communities they operate within.

Joanne Fuller, Director
Multnomah County Health Department