



# BULLSEYE

**GLASS CO.**

July 28, 2016

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VIA ELECTRONIC DELIVERY

**Re: Comments of Bullseye Glass Company on the Oregon Department of  
Environmental Quality's proposed Art Glass Permanent Rulemaking**

Dear Commissioners:

Bullseye Glass Company ("Bullseye") encourages the Oregon Environmental Quality Commission ("EQC") to adopt revisions to the source testing requirements and removal efficiency requirements contained in the "Art Glass Permanent Rule" (the "Rule") proposed by the Department of Environmental Quality ("DEQ").

### **Source Testing Requirements**

Proposed rule section 340-244-9040(3)(a)(B) outlines the source testing requirements applicable to Tier 2 CAGMs that must be followed in order to establish a chromium III or chromium VI usage rate based on stack testing and air dispersion modeling and states the following:

"Test for chromium, chromium VI and particulate matter at the outlet of an uncontrolled glass-making furnace; or test for chromium, chromium VI and particulate matter at the inlet of an emission control device and for particulate matter at the outlet of the emission control device;"

Comments of Bullseye Glass Company  
on DEQ's Proposed Art Glass Permanent Rule  
Submitted July 28, 2016

We propose a revision to the Rule to allow for an alternative source testing program whereby testing for total chromium is conducted only at the outlet of the emissions control device using EPA Method 29 or a DEQ-approved equivalent method. Because the Rule requires that a chromium III/VI usage rate be based on air dispersion modeling of chromium VI, under this proposed testing program any measured total chromium emissions would be assumed to be equivalent to chromium VI emissions. The oxidation state of chromium does not affect its mass and the mass of chromium VI cannot exceed the mass of total chromium. Therefore, testing for total chromium is an appropriate and conservative surrogate for evaluating potential chromium VI emissions.

Allowing for the testing of total chromium at the outlet of an emissions control device provides the following technical and economic advantages while being protective of human health and the environment in regards to evaluating ambient air quality impacts from potential chromium VI emissions.

- The test method used for determining chromium VI emissions from a source such as an art glass furnace is EPA Method 0061. This method is not widely used. Based on our recent experience this test method is technically challenging and produces inconsistent results. The method is designed to ensure the oxidation state of chromium emitted from the source is “fixed” and maintained through laboratory analysis. Execution requires a specialized testing apparatus, circulating reagent chemicals, pH monitoring and specialized analytical procedures. EPA Method 29 is

more widely used to determine metals emissions, requires fewer specialized techniques and can produce more consistent results.

- Based on our recent experience with Method 0061 and in consultation with source testing companies, Method 29 is generally less expensive than Method 0061.
- Because Method 29 determines total chromium emissions, evaluating measured amounts assuming total chromium is all chromium VI, any determination of ambient air quality impacts will represent a conservative and worst-case scenario.
- Determining an outlet emission rate of chromium VI based on chromium inlet testing and particulate matter removal efficiency (as described by the current proposed Rule) represents a calculated value as opposed to a measured value thereby introducing potential error including the assumption that the control device's removal efficiency for metals is equivalent to PM removal efficiency.

Based on this discussion we propose that section 340-244-9040(3)(a)(B) of the proposed Rule be modified to read as follows:

(B) Test for chromium, chromium VI and particulate matter using one of the following two methods:

(i) Test for chromium, chromium VI and particulate matter at the outlet of an uncontrolled glass-making furnace; or test for chromium, chromium VI and particulate matter at the inlet of an emission control device and for particulate matter at the outlet of the emission control device or;

- (ii) Test for chromium at the outlet of an emissions control device and test for particulate matter at the outlet of an emissions control device.

### **Removal Efficiency Requirements**

Section 340-244-9070(1) of the Rule provides the emission control device requirements for CAGMs and states the following:

“Each emission control device used to comply with this rule must meet 99.0 percent or more removal efficiency for particulate matter as measured by DEQ Method 5 or an equivalent method approved by DEQ.”

We propose a revision to the rule whereby an alternative to the removal efficiency requirement is to meet a production-based PM mass emission rate not to exceed 0.2 pound per ton (lb/ton) of glass produced. This production-based PM mass emission rate is currently established in the National Emission Standards for Hazardous Air Pollutants (“NESHAP”) for Glass Manufacturing Area Sources in 40 CFR Part 63, subpart SSSSSS (“6S”). Notwithstanding the fact that the EPA has not made a binding determination of applicability of the 6S rule to CAGMs, this emission rate establishes an appropriate control technology standard and should be an option for demonstrating compliance. As such, we propose section 340-244-9070(1) of the Rule be amended to state the following:

“(1) Each emission control device used to comply with this rule must meet 99.0 percent or more removal efficiency for particulate matter as measured by DEQ Method 5 or an equivalent method approved by DEQ or a

production-based PM mass emission rate not to exceed 0.2 pound per ton  
(lb/ton) of glass produced.”

Bullseye believes these minor revisions to the source testing and efficiency requirements will result in more appropriate and conservative restrictions to ensure that emissions meet acceptable source impacts. Bullseye appreciates the Commission’s consideration of these comments.

Sincerely,

BULLSEYE GLASS COMPANY

A handwritten signature in cursive script, reading "Eric E. Durrin".

Eric E. Durrin  
Controller