**Art Glass Permanent Rulemaking 2016**

**Public Comments and Draft DEQ Responses**

**Comment categories**

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| 1. **Wants more compliance time or flexibility**   **Example (from commentID #2)**  …We all want cleaner air. We all want a thriving economy and jobs. While Bullseye employs about 125 people, many thousands of people depend on their success worldwide to support their families and to pay taxes. They export about 35% of their production. They are a strong contributor to our community both in special projects and income. Bullseye attracts tourism revenue in many of our service sectors due to classes, tours and retail sales of products.  Bullseye is at present adding baghouses to their furnaces that will allow them to produce glass with 99.9% filtration rate. It is difficult to meet the deadlines for installation when nearly 80% of production had been shut down for a period of time, and at present are strictly limited, with limited impact on air quality.  As recent air monitoring data has shown, there has been little change in air quality since Bullseye has been limited in their production. That points to a stronger likelihood of other bigger contributors in the neighborhood. Please use objective scientific methods and data and consult with glass professionals for advice in making sound decisions when developing pollution control solutions for the glass art industry. Please be fair in application of rules to art glass manufacturers. Please consider the impact on jobs, tax revenues, and the limited win on pollution control when applying subjective and stringent rules on the glass industry with short notification in relationship to the environments they operate in. This effort has a huge financial impact and may well cause production to shift overseas. Sending production to China will not clean our air. It will not support the Oregonians who work in the art glass industry, nor any of those across our continent and the rest of the world. It will not provide any tax revenues.  Thank you for your time. Please consider using scientific data to have a real impact on our health and air quality, on art and our economy as changes are made in environmental regulations.  Sincerely,  Melody Roth  ***Answer:***  *DEQ is confident that the requirements and deadlines in the proposed rules are achievable by all affected facilities. DEQ is also committed to work with all affected companies to issue necessary emission control device approvals and test plan approvals as quickly as possible.*  *We have revised the rule to reduce source testing costs and uncertainties by replacing the 99% capture efficiency standard with a standard at the baghouse outlet. In addition, DEQ added a pathway for facilities to apply for an extension of time to comply in 340-244-9005.* |
| 1. **Consider economic effect on glass artists / Don’t shut down glass industry**   **Example (commentID #10)**  Good afternoon, I am writing to let you know how important my ability to obtain the beautiful glass of Bullseye is to my business. I have a small but nice fused glass business in Atlanta, GA. I do not know how my business can continue if the glass Bullseye produces is discontinued. I do believe we should not taint the air we breathe and sincerely hope all the parties involved will seek a reasonable and mutually beneficial solution so that I can continue in my business. Thanks, MM  **Example (from commentID #9)**  Fused glass is a family affair for 3 generations of my family. I would appreciate it if you would find a way to help control the pollution rather than shutting factories down. The loss of a USA manufacturer would probably cause the price of glass to rise forcing hobbiest out of their hobby.  ***Answer:***  *The proposed permanent rules are intended to ensure that CAGMs operate in a way that is protective of human health and the environment. We are confident that facilities can meet these requirements while continuing to serve their customers.* |
| 1. **Other sources pollute too**   **Example (commentID 1651)**  There is really no way to proceed without all the facts about the air quality. Without wind direction &amp; velocity data, you cannot effectively identify or rule out the sources of heavy metals detected at the daycare. DEQ needs to start over - DEQ needs to collect wind data at the same location and times the air sampling is done. DEQ also needs to understand that ambient air monitoring in an error - ambient air monitoring is typically employed in buildings with closed environments. For outside, wind data is imperative as the atmosphere is dynamic. When wind direction &amp; velocity data is compared to the air sampling data - it indicates that the highest heavy metal concentrations detected at the daycare came from nearly 40 degrees south of Bullseye Glass - the location of Lehigh Southwest Cement. Lehigh is within 100' feet of the monitoring station with a huge footprint - meaning that anytime the wind is from 285 through 325, the air monitoring station is downwind. Wind direction and velocity data indicate that the air monitoring station was downwind of Lehigh for 51 out of 104 days sampled - about 6 days it was downwind of Bullseye Glass.  Similar pattern at Powell Park &amp; 22nd - Monitoring station is only downwind for a few days out of 104.  The detected levels are quite different between the two stations. All things being equal, then the detected levels should be similar or closer than they are. The reason for the discrepancy is that Powell Park monitoring station is farther away from Lehigh.  It's not possible to engage in rulemaking without \*all\* the facts. The proposed rules will do nothing to reduce the heavy metals being lofted into the atmosphere at Lehigh. The infants &amp; children under 5 will still be in harms way. This IS the reason why wind direction &amp; velocity data is critical. The health &amp; safety of children is at stake. DEQ must get it right the first time. STOP - START OVER COLLECT WIND DATA.  ***Answer:***  *[do we have monitoring data that would help us determine how much of the pollution was coming from Bullseye?]*  *[what is our response to the points about wind direction?]*  *DEQ has begun the Cleaner Air Oregon rulemaking process to develop a statewide risk-based air toxics program that will cover many industry types.* |
| 1. **Supports applying rule statewide**   **Example (CommentID 194)**  Regard for the public health should be utmost in the decision making process and expedite emission controls installation. My family has been subjected to unfiltered emissions from Bullseye for decades. Knowing what we know now, it would seem the most protective of public health to consider the following when making these rules permanent.  1) Close loopholes that would allow for emissions of heavy metals from uncontrolled furnaces;  2) Apply state-wide;  3) Apply to all glass manufacturers;  4) Apply to all heavy metals;  5) Would ensure public notice and comment instead of locking the public out of DEQ decisions.  ***Answer:***  *Based on comments received, DEQ is proposing that the permanent rule apply statewide. While there are no known air quality problems related to CAGM operations outside the Portland area, applying the rule statewide gives all Oregonians protections from current and potential future CAGM emissions and helps provide a “level playing field” for CAGMs that install the controls necessary to comply.* |
| 1. **Supports lowering 10 tpy threshold**   **Example (excerpt from CommentID #1968)**  DEQ’s Questions are provided in italicized text, and Northstar’ responses are provided in regular text below:  1. Should the rule be modified to apply to sources that make less than 10 tons per year of colored art glass?   * Yes, the rule should be modified to apply to all sources of hazardous air pollutants (HAPs), ideally, regardless of the amount produced. However, if a threshold is needed, we suggest that the rule apply to manufacturers of greater than 500 pounds of colored art glass per year. This would prevent smaller, unregulated, colored art glass manufacturers from starting up in lieu of the larger, tiered regulated manufacturers. This modification would be consistent with the goal of reducing the amount of HAPs being discharged to the atmosphere.   **Example (excerpt from CommentID #1996)**  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.   **Answer:**  DEQ is reducing the threshold to ?? |
| 1. **Supports including more metals in list**   Example (CommentID #194):  Regard for the public health should be utmost in the decision making process and expedite emission controls installation. My family has been subjected to unfiltered emissions from Bullseye for decades. Knowing what we know now, it would seem the most protective of public health to consider the following when making these rules permanent. 1) Close loopholes that would allow for emissions of heavy metals from uncontrolled furnaces;  2) Apply state-wide;  3) Apply to all glass manufacturers;  4) Apply to all heavy metals;  5) Would ensure public notice and comment instead of locking the public out of DEQ decisions.  **Answer:**  The temporary rule regulated the use of arsenic, cadmium, chromium, lead, manganese, and nickel in making glass. DEQ is adding cobalt and selenium to that list of compounds. [why cobalt and selenium? Why not the others in this table below?]    Table is from a 1992 EPA document, “[Vitrification Technologies for Treatment of Hazardous and Radioactive Waste](https://nepis.epa.gov/Exe/ZyNET.exe/30004JDS.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1991+Thru+1994&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C91thru94%5CTxt%5C00000005%5C30004JDS.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL)”. |
| 1. **Supports higher capture efficiency (99.9%)**   **Example (excerpt from CommentID #1947):**  This technology-based focus is especially concerning because the proposed permanent regulations require that the emissions control devices meet only a 99.0 percent control efficiency, as opposed to 99.9+ percent. OAR 340-244-9070. It is well-known that baghouses regularly achieve 99.9+ percent efficiency. In February of this year, PCC Structurals submitted a notice of intent to construct a new baghouse at its Large Parts Campus and stated that "[b]aghouses provide a minimum 99.9% removal efficiency" for particulate matter. 1 EPA's Air Pollution Cost Control Manual states that "a properly designed and well run baghouse will generally have an extremely high particulate matter (PM) collection efficiency (i.e 99.9+ percent)." Thus, even as to these basic technological requirements, DEQ is proposing regulations that fail to reflect the best available controls. What criteria did DEQ consider in setting this standard for control efficiency? Why did DEQ reject 99.9+ percent? What criteria is DEQ basing its decision on?  **Answer:**  DEQ agrees that baghouses are capable of capture efficiencies higher than the 99.0% standard in the temporary rule. DEQ has learned that there are practical problems with demonstrating that with a source test, particularly for the smaller (Tier 1) facilities.  To show 99.0% (or 99.9%) capture efficiency with a source test, a facility needs to test the inlet and the outlet of the baghouse. Chemical tests are not accurate below a certain threshold (the method reporting limit, MRL) and if a reading is below the MRL then the sample concentration is assumed to be the MRL.  To show 99.0% capture efficiency, the source test must be run until the inlet sample is at least 100x the MRL. Unfortunately that takes a very long time, especially at Tier 1 facilities (~ one week per test run), because their baghouse systems pull in a lot of air from the room and are very dilute. Long test runs are expensive and prone to error. One facility, Northstar, reported that they were quoted a cost of $350k for a source test, which may be more than the cost of buying and installing a baghouse.  DEQ is proposing a rule revision so that facilities will have to meet an emissions standard of 0.005 gr/dscf (grains of particulate per dry standard cubic foot of air) rather than a baghouse capture efficiency standard. This is a standard type of emissions testing for other facility types and will reduce source testing costs. [If requiring baghouse leak detection, mention that here.] |
| 1. **Supports revised health benchmarks**   **Example (excerpt from CommentID #1947):**  Second, DEQ has failed to explain how it arrived at 36 nanograms per cubic meter of chromium VI as an acceptable daily impact level. How has DEQ determined that this level is protective of public health? Does this impact level reflect cancer or non-cancer risk? What studies is this number based upon? Has DEQ sought input from its Air Toxics Scientific Advisory Committee on whether this daily impact level is protective of public health? Moreover, it makes no sense to set the annual acceptable source impact level at .08 nanograms per cubic meter while setting a daily acceptable source impact level of 36 nanograms per cubic meter. One day of emissions at 36 would immediately cause a violation of the annual average of .08 (i.e. 36/365 = .1 ). How does DEQ intend to calculate the annual acceptable source impact level? Why would DEQ set a daily limit that is inconsistent with the annual limit?  **Answer:**  DEQ has partnered with the Oregon Health Authority (OHA) to rely on their expertise in estimating environmental risks and setting health benchmarks.  Because chronic exposure to pollutants can cause harm through different mechanisms than intense, acute exposures, OHA recommended that DEQ incorporate an annual and 24 hour limit on chromium emissions from Tier 2 facilities. Facilities are bound by both limits, so the most stringent is the one that matters. As you noted, exceeding the 36 ng/m3 acute (24 hour) limit for one day would also violate the chronic (annual) limit of 0.08 ng/m3. This is not an error, but it is true that the annual limit is more stringent and would be binding.  DEQ is proposing to change the 36 ng/m3 limit based on new information submitted by OHA. OHA recommended that DEQ revise the 24 hour health benchmark for hexavalent chromium to 5 ng/m3. 5 ng/m3 is the intermediate minimal risk level (MRL) established by the Agency for Toxic Substances and Disease Registry (ATSDR).  OHA is beginning a process to review and revise other health benchmarks. If OHA revises other benchmarks as part of that process, the updated data could be incorporated into the art glass rule in a future rulemaking. |
| 1. **Supports including all glass manufacturers**   Example (CommentID #2362, [summary of oral comment at 7/19/2016 public hearing])  DEQ should regulate diesel emissions, Bullseye glass, other glass manufacturers like Owens Brockaway Glass and General Glass. Regulation should be health-based. DEQ should be more responsive and transparent.  **Answer:**  Large scale bottle manufacturers are already subject to regulations that require control devices and reductions of emissions through technology based standards. This proposed rule is applicable to a different industry with different emissions and impacts. Additional health risk impacts from large bottle manufacturers may also be addressed as part of the permanent rulemaking mentioned in other comment responses. |
| 1. **Wants this rule to be "health-based"**   **Example (excerpt from CommentID #1947):**  The proposed permanent rules do not include health-based regulations of emissions from CAGM facilities. The proposed permanent rules principally require the implementation of emissions-control equipment for Tier 2 facilities by September 1, 2016, thus reflecting a technology-based approach- and not a health-based approach- to regulation. There is no provision in the rule to determine whether emissions in compliance with the technology-based requirements result in threats to human health in the surrounding communities. Furthermore, prior to September 1, 2016, the proposed regulations would allow for emissions of certain heavy metals from uncontrolled furnaces. These interim requirements also are not health based. Thus, these proposed permanent regulations have no health-based (or risk-based) requirements built into them at all despite the fact that Governor Brown and DEQ have been telling the public that Oregon will be developing health-based regulations for air taxies.  ***Answer:***  *DEQ has begun the Cleaner Air Oregon rulemaking process to develop a statewide risk-based air toxics permitting program that will cover many industry types. There will be many opportunities for public input and participation in that process. The approach proposed in the art glass rule is a combination of risk and technology based approaches. It requires emission control devices to reduce the rate at which CAGMs emit metals, which is a technology-based requirement. It also incorporates elements of a risk-based program by establishing health based acceptable source impact levels for chrome usage at Tier 2 facilities. The proposed rules also contain elements of a risk-based program in allowing Tier 1 CAGMs to demonstrate that their emissions of metals are not above the acceptable levels.* |
| 1. **Wants more public involvement**   Example:  Answer: |

Detailed comments:

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