Oregon Department of Environmental Quality

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Oregon Environmental Quality Commission Meeting

Rulemaking Action Item No. XX

**Art Glass Permanent Rulemaking**

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****This file contains the following documents:****

* **EQC Staff Report**
* **Draft rules – redline/strikethrough**
* **Draft rules – no markup**
* **Supporting documents**

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| DEQ recommendation to the EQC  |

DEQ recommends that the Environmental Quality Commission adopt the proposed rules in Attachment A as part of Chapter 340 of the Oregon Administrative Rules.

## Insert the following sections from published NOTICE after the Recommendation section.

* Overview – include *Request for Other Options.*
* Freeform title
* Statement of need
* Rules affected, authorities, supporting documents
* Fees
* Statement of fiscal and economic impact
* Federal relationships
* Land use

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| Overview |

## Short summary of proposed rule changes

## Background of reasons for doing this rulemaking

## How this rulemaking addresses the reasons for doing the rulemaking

## Key policy and technical issues

## Affected parties

## Outreach efforts and public and stakeholder involvement

## Hearing testimony

## Summary of significant public comments and responses

## Effects of this rulemaking on any fees

## Brief summary of fiscal impact

**Short summary**

DEQ proposes that the Oregon Environmental Quality Commission (EQC) approve the proposed rules, making the temporary art glass rules adopted by the EQC in April 2016 permanent, but potentially with some modifications.

**Brief history**

Elevated and possibly unsafe levels of metals have been found in the air around two glass manufacturing facilities in Portland. In May 2015, DEQ received the initial results of a study the U.S. Forest Service conducted looking at moss samples as an indicator or screening tool for contaminants in the air. The study’s results showed that the moss samples in the areas near two colored art glass manufacturers contained high levels of the heavy metals cadmium and arsenic in Southeast Portland and cadmium in North Portland.

This pilot study prompted DEQ to set up air monitoring systems near a glass company in Southeast Portland. The study collected 24-hour air samples every few days over a 30-day period in October 2015. The results of DEQ’s air monitoring confirmed that the glass company was the likely source of metals air emissions. DEQ completed its quality assurance and quality control review of those samples in late January 2016. DEQ then shared its analysis of the findings with the Oregon Health Authority (OHA) and the Multnomah County Health Department.

The DEQ also identified a second area of concern near a glass company in North Portland. The glass companies were operating in compliance with the current law. One company was operating within its permit and the other company is not required to have a permit.

The U.S. Congress amended the Clean Air Act in 1990 to allow EPA to oversee the control of 188 hazardous air pollutants (HAPs) in order to protect human health. The EPA works with local and state governments to implement technologies that control the emission of these chemicals.

Benchmarks are Oregon’s protective “clean air” goals that DEQ developed to address toxic air pollutants. There are no direct regulatory requirements associated with benchmarks. In 2005, with EPA funding, DEQ measured concentrations of air toxics, including metals, at six locations in the Portland area, finding levels of many pollutants above clean air benchmarks. DEQ established air toxics benchmarksin 2006 that set guidelines for 52 pollutants.

DEQ’s work in 2006 and since then has identified levels of some toxic air pollutants that are still above Oregon’s air toxics benchmarks. This is a significant problem because toxic air pollutants are connected with serious health effects like cancer, respiratory problems and organ damage. DEQ's air toxics benchmarks are designed to be very protective air concentrations that people could breathe for a lifetime without increasing their cancer risk beyond a chance of one in a million.

Air toxics emissions from certain types of industrial businesses like colored art glass manufacturers are not fully regulated under federal requirements. Based on sampling DEQ has concluded that uncontrolled furnaces used in such colored art glass manufacturing are more likely than not to emit potentially unsafe levels of certain metals, including arsenic, cadmium, hexavalent chromium and nickel. The permanent rules that DEQ proposes for EQC adoption are intended to protect public health and the environment by ensuring the air emissions from colored art glass facilities do not cause unsafe levels of metals in the air nearby.

EQC adopted temporary rules on April 21, 2016 and this proposed rulemaking will make those rule changes permanent. If no action is taken those rules will expire 180 days after adoption, on October 18, 2016.

**Regulated parties**

The proposed rules apply to colored art glass manufacturers (CAGM) in the Portland Air Quality Maintenance Area (AQMA). DEQ is considering rule modifications that would make the proposed permanent rules apply to more sources than do the temporary rules, as noted below in the section titled “Request for other options”.

CAGMs will incur expenses to obtain air permits; submit reports to DEQ; and depending on the compliance path chosen, to install, operate and maintain emission control devices, and/or perform stack testing and dispersion modeling.

**Request for other options**

During the public comment period, DEQ requested public comment on whether to consider other options for achieving the rules’ substantive goals while reducing the rules’ negative economic impact on business.

In addition to comments on other aspects of the proposed rules, DEQ specifically requested public input on these questions:

* Should the rule be modified to apply to sources that make less than 10 tons per year of colored art glass? If so, what threshold would be appropriate? If proposing a new threshold, what is the scientific/risk based rationale for the change?
* Should the rule be modified to apply statewide, rather than only in the Portland AQMA?
* The temporary rule requires control devices be shown to capture at least 99.0% of incoming particulate matter. DEQ has received indications that, for some facilities, capturing enough particulate matter to show compliance with the 99.0% requirement may require an unmanageably long source test. DEQ seeks comment on whether replacing the 99.0% capture efficiency standard with an emissions standard at the control device outlet would be appropriate for Tier 1 or all facilities and if so, what emissions standard should be chosen. DEQ is considering a control device outlet particulate matter emission standard between 0.001 and 0.01 gr/dscf (grains per dry standard cubic foot of air) based on a range of emissions standards in federal air toxics rules.

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| Statement of Need |

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**What need would the proposed rule address?**

DEQ is addressing the need to control metals emissions from CAGM facilities. As DEQ recently determined through air monitoring and facility inspections, uncontrolled glass furnaces processing colored glass to which metal Hazardous Air Pollutants[[1]](#footnote-1) (HAP) are added emit these metals at levels that can pose an immediate threat to the health of people nearby. Recent monitoring close to a colored art glass facility with uncontrolled furnace emissions has shown metals concentrations at levels that can significantly increase risks of cancer and other health problems.

These rules are necessary to address a regulatory gap. A federal regulation called NESHAP 6S[[2]](#footnote-2) is applicable to some furnaces at the largest CAGMs, but smaller facilities and furnaces also use and emit metal HAP in quantities likely to pose an unacceptable risk to people nearby. No other state and federal standards currently apply that would limit potentially unsafe levels of metal emissions from these types of colored art glass facilities.

**How would the proposed rule address the need?**

The proposed rules would fill the regulatory gap by setting operational standards for art glass businesses that emit air toxics and potentially cause serious health effects.

The proposed rules create two tiers of CAGM based on production and furnace type. The larger Tier 2 CAGMs would be required to install emission control devices on all furnaces using metal HAP and to perform source testing and dispersion modeling to measure and limit emissions of hexavalent chromium. The smaller Tier 1 CAGMs can install emission control devices on all furnaces using metal HAP, use source testing and modeling to demonstrate that emissions are below source impact levels without controls, or stop using metal HAP in one or more furnaces.

These rules would decrease the risk from airborne metal exposure to people nearby, including children and other sensitive or vulnerable individuals.

**How will DEQ know the rule addressed the need?**

The rule requires source testing to demonstrate the effectiveness of emissions control devices and to measure emissions in several other cases (hexavalent chromium emissions from Tier 2 facilities and metal HAP emissions from Tier 1 facilities opting to operate uncontrolled furnaces). Source testing will quantify metal HAP emissions and emissions reductions.

DEQ is also performing ambient air monitoring near several CAGMs, which can verify whether metal HAP concentrations in the air people breathe have been reduced to safe levels.

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| Rules affected, authorities, supporting documents |

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**Lead division**

Operations

**Program or activity**

Program Operations

**Chapter 340 action**

|  |  |
| --- | --- |
| Repeal | OAR 340-244-0010(T), 340-244-9000(T), 340-244-9010(T), 340-244-9020(T), 340-244-9030(T), 340-244-9040(T), 340-244-9050(T), 340-244-9060(T), 340-244-9070(T), 340-244-9080(T), 340-244-9090(T) |
| Adopt | OAR 340-244-9000, 340-244-9010, 340-244-9020, 340-244-9030, 340-244-9040, 340-244-9050, 340-244-9060, 340-244-9070, 340-244-9080, 340-244-9090 |
| Amend | OAR 340-244-0010 |

**Statutory authority**

ORS 468.020, 468A.025, 468A.040, 468A.055, 468A.070 and 468A.310

**Statute implemented**

ORS 468A.025, 468A.040, 468A.055, 468A.070 & 468A.310

**Documents relied on for rulemaking**

|  |  |
| --- | --- |
|  **Document title** | **Document location** |
| EQC Staff Report for Colored Art Glass Manufacturer Emissions Temporary Rulemaking | <http://www.oregon.gov/deq/RulesandRegulations/Documents/ToxicsStaff0416.pdf>  |

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| Fee Analysis |

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This rulemaking does not involve the adoption of any new fees.

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| **Statement of fiscal and economic impact** |

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**Fiscal and Economic Impact**

The proposed change to make the CAGM rules permanent would have fiscal and economic impacts on businesses, DEQ, and the public. It is not anticipated to have fiscal and economic impacts on federal government, other state agencies, or local governments.

**Statement of Cost of Compliance**

**State and federal agencies**

Direct Impacts

The proposed rules would require Tier 1 CAGMs to apply for and maintain Air Contaminant Discharge Permits (ACDPs), which these businesses would not otherwise be required to have. The permit application fees (currently $7,200 per facility) and annual fees (currently $4,608 per facility) would be additional revenue to DEQ. However, those fee amounts would be offset by DEQ’s additional costs for permit writing, compliance monitoring and inspections.

Tier 2 CAGMs that must comply with the substantive requirements of NESHAP 6S will be required to have Title V operating permits whether or not the proposed rules are adopted. In this case, adoption of the proposed rules would not impact DEQ revenue or costs for these facilities. If a Tier 2 CAGM is not required by NESHAP 6S to have a Title V permit, the proposed rules would require them to get an ACDP similar to Tier 1 CAGMs. Bullseye Glass currently has an ACDP.

The US Environmental Protection Agency has been in contact with CAGMs and DEQ but they would not be directly involved in implementing the proposed rules. DEQ does not anticipate impacts to federal agencies or other state agencies besides DEQ.

Indirect Impacts

DEQ does not anticipate indirect impacts to DEQ or other state and federal agencies.

**Local governments**

DEQ does not anticipate direct or indirect impacts to local governments.

**Public**

Direct Impacts

DEQ does not anticipate direct impacts to members of the public, because they are not subject to the rule.

Indirect Impacts

The proposed rules are intended to measure and reduce emissions of metal HAPs from the CAGMs subject to the rule. Decreased emissions of metal HAPs and other particulate matter may have significant health benefits for the public, particularly those who live, work or otherwise spend significant time near a CAGM.

Cadmium, arsenic, and lead, three of the metal HAPs regulated by the rule, have been found to exceed human health-based benchmark concentrations near CAGMs. Exposure to metal HAPs through inhalation or other means is connected with serious health effects like cancer, respiratory problems and organ damage.

The compliance route chosen by many CAGMs will likely be installation of one or more particulate matter control devices such as baghouses. In addition to reducing metal HAP emissions, installation of these devices would reduce emissions of other particulate matter, including fine particulate matter (less than 2.5 microns in diameter). Fine particulate matter causes serious health problems ranging from increased respiratory and pulmonary symptoms, hospital admissions and emergency room visits to premature death for people with heart and lung disease.

Health problems have negative economic impacts to the people experiencing them, and may also affect their family members, employers, and the health care system. The proposed rules would create positive economic benefits and improvements in public health and welfare by reducing these emissions. DEQ currently does not have an estimate of avoided health impacts, but the Oregon Health Authority (OHA) is working on Public Health Assessments to estimate the health impacts of emissions from Bullseye and Uroboros. OHA plans to release those reports in late fall of 2016.

The US Environmental Protection Agency (EPA) estimated the costs and benefits of the 1990 Clean Air Act Amendments[[3]](#footnote-3), which among other things expanded regulation of air toxics and led to regulations such as NESHAP 6S. EPA’s estimate was that the health benefits of that set of regulations were 30 times the costs of compliance, with a range between 3 and 90. According to EPA, “This net improvement in economic welfare is projected to occur because cleaner air leads to better health and productivity for American workers as well as savings on medical expenses for air pollution-related health problems. The beneficial economic effects of these two improvements alone are projected to more than offset the expenditures for pollution control.”[[4]](#footnote-4) While EPA has calculated these benefits for the 1990 Clean Air Act Amendments, it is unknown whether figures would be similar for these proposed rules.

The source testing, modeling, and reporting components of the rule provide the public information about the amount and composition of emissions. This information appears to have value to members of the public, though DEQ is unable to quantify that value in monetary terms.

To the extent that metals emissions depress property values near CAGM facilities, the proposed rule may also have a positive economic impact by reversing that effect. DEQ does not have available data to quantify this.

Members of the public that are customers of CAGMs may pay higher prices, if CAGMs raise their prices to recoup their compliance costs. DEQ lacks information to estimate the impact of price increases but expects this impact on the public to be small relative to the health benefits.

**Large businesses - businesses with more than 50 employees**

Direct Impacts

Currently there are five CAGM that would be subject to the proposed rules. One of those, Bullseye Glass Company, has more than 50 employees and is therefore considered a large business for the purposes of rulemaking fiscal impact analysis.

Compliance cost may vary depending on facility-specific circumstances. In particular, Bullseye is making changes to comply with NESHAP 6S at the same time as this proposed rule. Even if this proposed rule is not adopted, Bullseye would need to install one or more baghouses to meet NESHAP 6S requirements. Because the number of baghouses that would be installed for NESHAP 6S alone is uncertain, the number of additional baghouses needed for compliance with the proposed rule is also uncertain. (Bullseye is planning for installation of a total of 4 baghouses.) DEQ has incorporated that uncertainty into this fiscal impact analysis by estimating that Bullseye would install between zero and two additional baghouses to comply with the proposed rule, over and above what they would install for NESHAP 6S compliance alone.

If no additional baghouse costs were attributable to the proposed rule, compliance with the proposed rule would cost Bullseye about $70,000 to $100,000 in initial costs for permitting, source testing, and modeling, with no ongoing costs.

If all costs for two additional baghouses were attributable to the proposed rule, compliance with the proposed rule would cost Bullseye about $578,000 to $930,000 for permitting, baghouse installation, source testing, and modeling, and ongoing costs of $54,000 to $174,000 per year to operate and monitor the baghouses.

It is possible that Bullseye may be able to offset the cost of compliance through increased prices. Bullseye is reportedly increasing prices by 12.5% in August 2016 to help pay for baghouse installation[[5]](#footnote-5). However, the potential for increasing revenue may be limited if prices are set in a market that includes competitors located outside the jurisdiction of the proposed rules.

Further details on these cost estimates can be found in Attachment A.

Indirect Impacts

To the extent CAGMs raise their prices in response to the proposed rules, the increased prices represent an indirect fiscal impact on their customers, some of whom may be large businesses. DEQ does not have sufficient information to estimate this effect.

**Small businesses – businesses with 50 or fewer employees**

Direct Impacts

Four of the five businesses subject to the proposed rules have 50 or fewer employees and are therefore considered small businesses for the purposes of rulemaking fiscal analysis.

Of these, one (Uroboros Glass Studios, Inc.) is in Tier 2 of the proposed rules. The other three (Glass Alchemy, Northstar Glassworks, and Trautman Art Glass) are in Tier 1.

Like Bullseye, Uroboros is making changes to comply with NESHAP 6S at the same time as the proposed rule. Uroboros stated that in 2015 all of their furnaces were below the throughput thresholds for NESHAP 6S applicability. But, they intend to comply with NESHAP 6S because future throughput may be higher. Uroboros plans to install one baghouse at their facility. Because that baghouse is partially attributable to this proposed rule, DEQ calculated Uroboros’ costs with between zero and one additional baghouse to comply with the proposed rule.

If no additional baghouse costs were attributable to the proposed rule, compliance with the proposed rule would cost Uroboros about $66,000 to $89,000 in initial costs for permitting, source testing, and modeling, with no ongoing costs.

If all costs for the baghouse were attributable to the proposed rule, compliance with the proposed rule would cost Uroboros $421,000 to $699,000 for permitting, baghouse installation, source testing, and modeling, and ongoing costs of $27,000 to $87,000 per year to operate and monitor the baghouse.

Facility-specific data for the Tier 1 CAGMs was not available, so their costs were estimated as a class. The proposed rule gives Tier 1 CAGMs multiple compliance options.

One option is to install an emissions control device such as a baghouse. DEQ estimates that the cost of compliance through this method is approximately $261,000 to $422,000 per facility in one-time costs and between $32,000 and $92,000 per facility in ongoing annual costs. The Tier 1 facilities are not subject to NESHAP 6S and would likely install only one baghouse per facility. All three Tier 1 CAGMs indicated that they planned to pursue this compliance option.

Alternately, Tier 1 CAGMs can operate without an emissions control device if they show through source testing and dispersion modeling that the impact of their emissions on the nearest sensitive receptor is within acceptable source impact levels. DEQ estimates that the cost of compliance via this pathway would be approximately $32,000 to $127,000 in one-time costs and $5,000 in ongoing annual costs for permitting. However, this estimate does not include the cost of reductions or changes in the type or amount of products produced, which could potentially be required in order to maintain emission impacts below limits. The proposed rules also prohibit hexavalent chromium from being used in furnaces that are using this compliance pathway. DEQ does not have sufficient information to estimate whether reduction or changes in production would be necessary.

Tier 1 CAGMs also have the option to stop using some or all of the metal hazardous air pollutants[[6]](#footnote-6) regulated by this rule completely. While this option is available, this would limit the range of glass colors that can be produced, and the lost revenue would likely make this an expensive compliance option.

Trautman Art Glass, one of the Tier 1 CAGMs, said that the proposed rules may prompt them to move their facility to a new location. That decision would depend on whether the current property owner agrees to allow installation of a baghouse, as well as other factors internal to their business. The company estimated that moving their factory and complying with the rules at the new location would cost approximately $2 million, plus lost revenue of $1 million during the moving process. DEQ does not have data to verify the necessity to move or the facility’s cost estimates for doing so.

As for large business CAGMs, it is possible that small business CAGMs may be able to offset the cost of compliance through increased prices. However, this potential may be limited if their prices are set in a market that includes competitors located outside the jurisdiction of the proposed rules.

Further details on these cost estimates can be found in Attachment A.

Indirect Impacts

To the extent CAGMs raise their prices in response to the proposed rules, it would represent an indirect fiscal impact on their customers, some of whom may be small businesses. DEQ does not have sufficient information to estimate this effect.

Summary of impact on small business (ORS 183.336)

**a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.**

Four of the CAGMs subject to the proposed rule are small businesses.

**b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.**

Tier 1 CAGMs would be required to obtain an Air Contaminant Discharge Permit (ACDP) that they wouldn’t otherwise be required to have. Tier 2 CAGMs would be required to obtain an ACDP, if an ACDP or Title V is not already required by other regulations.

CAGMs complying using an emissions control device are required to do an initial source test, and ongoing monitoring and reporting to show proper operation of the emissions control device.

CAGMs complying using source testing and modeling would be required to perform source testing and modeling, and may also need to do recordkeeping and reporting to show that production levels remain below limits established through that process.

**c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.**

CAGMs complying using an emissions control device would be required to install the control device, which may require replacement parts and supplies.

**d. Describe how DEQ involved small businesses in developing this proposed rule.**

DEQ allowed for a two week public comment period on the temporary rule, which is not required by law. DEQ received comments on the temporary rule from three of the four small businesses affected by the rule. DEQ proposed changes in the rules for Tier 1 CAGMs as a result of these comments.

**Documents relied on for fiscal and economic impact**

| **Document title** | **Document location** |
| --- | --- |
| Benefits and Costs of the Clean Air Act 1990-2020, the Second Prospective Study None – will delete if not needed | <https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-second-prospective-study>  |
| Bullseye Glass is Raising Prices To Pay for Air Filters | Portland Mercury, June 8, 2016<http://www.portlandmercury.com/blogtown/2016/06/08/18194644/bullseye-glass-is-raising-prices-to-pay-for-air-filters>  |

**Advisory committee**

DEQ appointed a fiscal advisory committee.

As ORS 183.33 requires, DEQ asked for the committee’s recommendations on:

* Whether the proposed rules would have a fiscal impact,
* The extent of the impact, and
* Whether the proposed rules would have a significant impact on small businesses and complies with ORS 183.540.

The committee met on May 27, 2016 and June 10, 2016 to review the draft fiscal and economic impact statement. Committee members were asked individually to respond to the questions listed above.

Committee members agreed that the rules would have a fiscal impact. Several members commented that there is also a fiscal impact on the US EPA. Other committee members stated that in addition to negative fiscal impacts of the rule, there are positive impacts because of avoided health impacts.

Committee members felt the range of costs reflected in the DEQ fiscal impact estimates were reasonable. Some commented that there is high uncertainty about the numbers, and some requested that the health benefits of the rule be quantified. One commented that costs could be significantly higher than the cost range given if a CAGM had to move their facility to install controls.

Committee members agreed that the rule would have a significant adverse impact on small businesses. Several members commented that small businesses located near the facilities or whose employees are located near the facilities would be negatively impacted if the rule were not implemented, because of the health impacts of uncontrolled emissions.

The committee determined the proposed rules would have a significant adverse impact on small businesses. As ORS 183.333 and 183.540 require, the committee considered how DEQ could reduce the rules’ fiscal impact on small business by:

* Establishing differing compliance or reporting requirements or time tables for small business;
* Clarifying, consolidating or simplifying the compliance and reporting requirements under the rule for small business;
* Utilizing objective criteria for standards;
* Exempting small businesses from any or all requirements of the rule; or
* Otherwise establishing less intrusive or less costly alternatives applicable to small business.

Committee members were asked whether they could suggest ways to reduce the negative economic impact of the rule while still meeting its public health and safety purpose. Several committee members commented that DEQ could reduce uncertainty for small businesses by clarifying source test requirements and whether they can operate during the period between submitting a permit application and DEQ issuing the permit. Some committee members mentioned that the rule already attempts to reduce impacts on small businesses by having different requirements for different tiers.

Committee members also stated that the current limits of the rule (only affecting CAGM in the Portland AQMA that produce 10 or more tons per year) increase the negative economic impact on the small businesses subject to the rule, because the rule is spurring competition from smaller unregulated operations, some run out of residential garages. The committee suggested that applying the rule statewide and lowering the applicability threshold from 10 tons per year to one, 100 or 1,000 pounds per year would better protect public health and reduce incentives to circumvent the rule.

**Housing cost**

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. DEQ determined that the proposed rules could affect the development cost if a house is constructed using colored art glass as a material, and if CAGM increase their prices in response to the proposed rule. However, the possible housing cost impact of these proposed changes appears to be infinitesimal because colored art glass represents an exceedingly small proportion of the development cost of a home.

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| Federal relationship |

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**Relationship to federal requirements**

ORS 183.332, 468A.327 and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so.

The proposed rules add requirements additional to those in federal requirements. Air toxics emissions from certain types of industrial businesses like colored art glass manufacturers are not fully regulated under federal requirements. Based on sampling DEQ has concluded that uncontrolled furnaces used in such colored art glass manufacturing are more likely than not to emit potentially unsafe levels of certain metals, including arsenic, cadmium, hexavalent chromium and nickel. The permanent rules that DEQ proposes for EQC adoption are intended to protect the public health and the environment by ensuring the air emissions from colored art glass facilities do not cause unsafe levels of metals in the air nearby.

What alternatives did DEQ consider if any?

The only alternative that would not require rules in addition to federal requirements would be to not adopt these rules. DEQ considered but did not pursue this alternative because air monitoring measured metals at levels that can pose an immediate threat to the health of people nearby.

DEQ considered regulating all CAGMs the same but did not pursue this alternative because of the comments received from the public on the difference between Tier 1 and Tier 2 CAGMs.

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| Land Use |

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**Land-use considerations**

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, DEQ considers that rules affect land use if:

* The statewide land use planning goals specifically refer to the rule or program, or
* The rule or program is reasonably expected to have significant effects on:
	+ Resources, objectives or areas identified in the statewide planning goals, or
	+ Present or future land uses identified in acknowledged comprehensive plans

To determine whether the proposed rules involve programs or actions that affect land use, DEQ reviewed its Statewide Agency Coordination plan, which describes the DEQ programs that have been determined to significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

**Goal Title**

5 Open Spaces, Scenic and Historic Areas, and Natural Resources

6 Air, Water and Land Resources Quality

9 Ocean Resources

11 Public Facilities and Services

16 Estuarial Resources

Statewide goals also specifically reference the following DEQ programs:

* Nonpoint source discharge water quality program – Goal 16
* Water quality and sewage disposal systems – Goal 16
* Water quality permits and oil spill regulations – Goal 19

**Determination**

DEQ determined that these proposed rules do not affectland use under OAR 340-018-0030 or DEQ’s State Agency Coordination Program.

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|  Stakeholder and public involvement |

Insert information from NOTICE here

* Advisory committee
* EQC involvement
* Public notice

CHANGE FROM FUTURE TO PAST TENSE

**Advisory committee**

**Background**

DEQ convened the Art Glass Permanent Rulemaking 2016 Fiscal Advisory Committee. The committee included representatives from colored art glass manufacturers, environmental groups and neighborhood air quality groups and met two times. The committee’s web page is located at: [Art Glass Permanent Rules 2016 Advisory Committee](http://www.oregon.gov/deq/RulesandRegulations/Pages/Advisory/Aartglass2016.aspx)

The committee members were:

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| **Name** | **Representing** |
| Abe Fleishman | Northstar Glassworks |
| Al Hooton | Glass Alchemy, Ltd |
| Amanda Jarman | Eastside Portland Air Coalition |
| Chris Winter | CRAG Law Center |
| Eric Durrin | Bullseye Glass Company |
| Jacob Sherman | South Portland Air Quality |
| Mark Riskedahl | NW Environmental Defense Center |
| Paul Trautman | Trautman Art Glass |

All five CAGMs subject to the rule were invited to participate on the committee. Uroboros Glass Studios, Inc. declined to participate.

**Meeting notifications**

To notify people about the advisory committee’s activities, DEQ:

* Sent GovDelivery bulletins, a free e-mail subscription service, to the following lists:
	+ On May 17 DEQ sent a one-time notice to: Subscribers of Air Quality 2016 Permanent Rulemaking, Air Toxics State-wide, Cleaner Air Oregon Regulatory Overhaul, DEQ Public Notices, News Releases, Portland Air Toxics Solutions, Rulemaking and Toxics Reduction Strategy subscribers to describe how to sign up for advisory committee meeting notices, and
	+ People who signed up for the advisory committee bulletin.
* Added advisory committee announcements to DEQ’s calendar of public meetings at [DEQ Calendar](http://oregon.gov/deq/Pages/Events.aspx).

**Committee discussions**

The committee’s discussions are described under the Statement of Fiscal and Economic Impact section above.

**EQC prior involvement**

The EQC met on March 15, 2016 to consider the temporary CAGM rules. After a public comment period and revisions to the rule, the EQC approved the rule at a second meeting on April 21, 2016.

**Public notice**

DEQ provided notice of the proposed rulemaking and rulemaking hearing on June 15, 2016 by:

* Filing notice with the Oregon Secretary of State for publication in the Oregon Bulletin on June 15, 2016,
* Notifying the EPA by email,
* Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking; located at: [Art Glass Permanent Rules 2016](http://www.oregon.gov/deq/RulesandRegulations/Pages/2016/Rartglass2016.aspx),
* Emailing 9906 interested parties on the following DEQ lists through GovDelivery:
	+ Subscribers of Air Quality 2016 Permanent Rulemaking
	+ Air Toxics State-wide, Cleaner Air Oregon Regulatory Overhaul
	+ DEQ Public Notices
	+ News Releases
	+ Rulemaking
	+ Toxics Reduction Strategy
* Emailing the following key legislators required under [ORS 183.335](http://www.leg.state.or.us/ors/183.html):
	+ Senator Chris Edwards, Chair, Senate Environment and Natural Resources Committee
	+ Representative Jessica Vega-Pederson, Chair, House Energy and Environment Committee
	+ Senator Lee Beyer
* Emailing advisory committee members,
* Postings on Twitter and Facebook
* Posting on the DEQ event calendar: [DEQ Calendar](http://oregon.gov/deq/Pages/Events.aspx)

## **Request for other options**

During the public comment period, DEQ requested public comment on whether to consider other options for achieving the rules’ substantive goals while reducing the rules’ negative economic impact on business. This document includes a summary of comments and DEQ responses.

## **Public hearings and comment**

DEQ held one public hearing. Five people commented orally during the public hearing. In addition, DEQ received 148 written comments through DEQ’s online comment tool, email, and in hard copy. Later sections of this document include a summary of comments received, DEQ’s responses, and a list of the commenters. Original comments are on file with DEQ.

## **Presiding Officers’ Record**

### **Hearing 1**

Meeting location: Conference room EQC-A, 10th floor of 811 SW 6th Avenue, Portland, Oregon

Meeting date and time: 6:00 p.m. on July 19th, 2016

Presiding Officer: Joe Westersund

The presiding officer summarized procedures for the hearing including notification that DEQ was recording the hearing. The presiding officer asked people who wanted to present oral comments to complete a registration form.

DEQ Permit Writer George Davis summarized the content of the public notice for this rulemaking, as required by Oregon Administrative Rule 137-001-0030. This summary took about 45 minutes and included staff responses to questions about the rulemaking.

Seven people attended the hearing in person (not counting DEQ staff) and an unknown number listened remotely via phone or watched via webinar. Five people commented orally and two of those also submitted hard copy written comments at the hearing. A summary of the oral comments is below.

| Name | Organization | Comment Topics | Submitted Hard Copy Comments |
| --- | --- | --- | --- |
| James Knox | Northstar Glassworks | Rule should apply to all CAGMs, not just ones producing 10 tons/year. Rules should apply statewide or nationwide. 99.0% baghouse capture efficiency standard should be changed to a grain loading standard. |  |
| Abe Fleishman | Northstar Glassworks | Rule should apply to all glass manufacturers using metal HAPs, not just ones producing 10 tons/year. Rules should apply statewide or nationwide. 99.0% baghouse capture efficiency standard would cost ~$350k and should be changed to a more cost-effective test that measures actual emissions, like a grain loading standard. 65 to 85% of cadmium used in a glass batch volatilizes and cadmium should be more regulated than in the temporary rule. |  |
| Greg Pourget | Portland Clean Air | 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.  |  |
| Chris Mini | Tabby Glass | Existing definitions could unintentionally regulate glass artists who do kiln work or glassblowing. These facilities reheat pre-made glass and don’t emit metal HAPs. Need better definition of ‘melt’ and ‘furnace’, and to not use term ‘molten glass’. | Yes |
| Katharine Salzmann | Speaking as individual | Should regulate all heavy metals used by CAGMs. Health benchmarks should be more protective. There should be no uncontrolled emissions of any HAPs in Oregon. | Yes |

DEQ added all names and affiliations of hearing participants who presented testimony to the commenter section of this staff report. DEQ added all written and oral comments presented at the hearing to the summary of comments and agency responses section of this staff report.

|  |
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|  Summary of comments and DEQ responses |

**EDITED TO HERE**

For public comments received by the close of the public comment period, the following table organizes comments into NUMBER OF CATEGORIES categories with cross references to the commenter number. DEQ’s response follows the summary. Original comments are on file with DEQ.

Select one option below

DEQ did not change the proposed rules in response to comments.

DEQ changed the proposed rules in response to comments described in the response sections below.

**Comment 1**

DEQ received XX NUMBER comments in this category from commenters Cross reference to commenter number or numbers submitted in this category using format ##, ##, ## and ##.

Enter a summary of this comment category.

**Response**

Enter DEQ’s response to this category of comments.

**Comment 2**

DEQ received XX NUMBER comments in this category from commenters Cross reference to commenter number or numbers submitted in this category using format ##, ##, ## and ##.

Enter a summary of this comment category.

**Response**

Enter DEQ’s response to this category of comments.

**Comment 3**

DEQ received XX NUMBER comments in this category from commenters Cross reference to commenter number or numbers submitted in this category using format ##, ##, ## and ##.

Enter a summary of this comment category.

**Response**

Enter DEQ’s response to this category of comments.

|  |
| --- |
|  **Commenters** |

## Comments received by close of public comment period

The table below lists number of commenters people and organizations that submitted public comments about the proposed rules by the deadline. Original comments are on file with DEQ.

Use of the two alternate formats for listing commenters; either a list or a table.

**Commenter 1** NAME

AffiliationORGANIZATION

This commenter submitted comments under categories Cross reference to comment category using ##, ##, ##, and ## format in the *Summary of comments and DEQ responses* section above.

**Commenter 2** NAME

AffiliationORGANIZATION

This commenter submitted comments under categories Cross reference to comment category using ##, ##, ##, and ## format in the *Summary of comments and DEQ responses* section above.

**Commenter 3** NAME

AffiliationORGANIZATION

This commenter submitted comments under categories Cross reference to comment category using ##, ##, ##, and ## format in the *Summary of comments and DEQ responses* section above.

**OR**

|  |
| --- |
| **List of Commenters** |
| **#** | **Name** | **Organization** | **Comment Category** | **Hearing #** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Add more commenters by copying and pasting additional commenter sections here.

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| Implementation  |

## **Notification**

The proposed rules would become effective upon filing on approximately DATE mmm, dd, yyyy. DEQ would notify affected parties by:

Describe Notification (PARTIES AND METHOD USED TO PROVIDE NOTICE)

## **Compliance and enforcement**

* Affected parties -Text
* DEQ staff - Text

## **Measuring, sampling, monitoring and reporting**

* Affected parties - Text
* DEQ staff - Text

## **Systems**

* Website - Text
* Database - Text
* Invoicing - Text

**Training**

* Affected parties - Text
* DEQ staff - Text

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| --- |
| Five-year review ORS 183.405 |

**Requirement**

Oregon law requires DEQ to review newrules within five years after EQC adopts them. The law also exempts some rules from review. DEQ determined whether the rules described in this report are subject to the five-year review. DEQ based its analysis on the law in effect when EQC adopted these rules.

## **Exemption from five-year rule review**

None of these proposed rules are exempt from the five-year review under ORS 183.405(4) and 183.405 (5) of the Administrative Procedures Act.

DELETE THIS PARAGRAPH IF NO RULES ARE SUBJECT TO FIVE YEAR REVIEW:

## **Five-year rule review required**

No later than DATE FIVE YEARS FROM ADOPTION. DEQ will review the newly adopted rules for which ORS 183.405 (1) requires review to determine whether:

* The rule has had the intended effect
* The anticipated fiscal impact of the rule was underestimated or overestimated
* Subsequent changes in the law require that the rule be repealed or amended
* There is continued need for the rule.

DEQ will use “available information” to comply with the review requirement allowed under ORS 183.405 (2).

DEQ will provide the five-year rule review report to the advisory committee to comply with ORS 183.405 (3)

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| DELETE THIS SECTION WHEN DOCUMENT IS COMPLETEFormats used in this document Arial 14 bold, Text RGB 0-73-79, Box RGB 226-221-219  |

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c. Last text

1. Level 2 text
* Level 1 bullet 1
	+ Level 2 bullet
	+ Level 2 bullet
	+ Last bullet
* Level 1 bullet

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1 Footnote Times Roman 12

**WORD PROBLEM**

The extra column on the right corrects a Word error that prevents vertical alignment in last column of a Word table.

Maggie 5/1/2012

2 Footnote Times Roman 12

1. The metal HAP governed by the proposed rule include arsenic, cadmium, chromium, lead, manganese and nickel. [↑](#footnote-ref-1)
2. National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources, 40 CFR Part 63 Subpart SSSSSS. [↑](#footnote-ref-2)
3. “Benefits and Costs of the Clean Air Act, 1990 to 2020”, <https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act> [↑](#footnote-ref-3)
4. <https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-second-prospective-study> [↑](#footnote-ref-4)
5. Portland Mercury, “Bullseye Glass is Raising Prices To Pay for Air Filters”, June 8, 2016. [↑](#footnote-ref-5)
6. The metal HAPs regulated by the proposed rule include arsenic, cadmium, chromium, lead, manganese and nickel. [↑](#footnote-ref-6)