

## **Statement of fiscal and economic impact**

ORS 183.335(2)(b)(E)

The following analysis looks at the impact of making the current temporary colored art glass manufacturer (CAGM) rules permanent, compared with the alternate scenario in which the temporary CAGM rules are allowed to expire.

### **Fiscal and economic impacts**

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**

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

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. However, DEQ used cost estimates submitted by CAGMs and others to estimate that the cost of compliance for a Tier 2 CAGM such as Bullseye would be approximately \$324,000 to \$415,000 in one-time costs for purchase and installation of a baghouse, source testing, modeling and permitting, and ongoing annual costs of between \$27,000 and \$82,000 for emission control device maintenance and monitoring and reporting to DEQ.

It is possible that CAGMs may be able to offset the cost of compliance through increased prices. However, this potential may be limited because their prices are set in a market that includes competitors located outside the jurisdiction of the proposed rules. To the extent CAGMs did 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.

Further details on these cost estimates can be found in the attached tables.

#### **Small businesses- businesses with 50 or fewer employees (ORS 183.336)**

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 a Tier2 CAGMs. The other three (Glass Alchemy, Northstar Glassworks, and Trautman Art Glass) are Tier 1 CAGMs.

As listed above, DEQ estimates that the cost of compliance for a Tier 2 CAGM is approximately \$324,000 to \$415,000 in one-time costs, and ongoing annual costs of between \$27,000 and \$82,000.

Tier 1 CAGMs are smaller than Tier 2, and the proposed rule gives them multiple compliance options. Tier 1 CAGMs can choose to comply by installing an emissions control device such as a baghouse. DEQ estimates that the cost of compliance through this method is approximately \$268,400 to \$329,400 in one-time costs and between \$36,216 and \$91,216 in ongoing annual costs.

Alternately, Tier 1 CAGM 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 \$24,400 to \$109,400 in one-time costs and \$9,216 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 chrome VI 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 (HAPs)<sup>1</sup> 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 CAGM, it is possible that small business CAGM may be able to offset the cost of compliance through increased prices. However, this potential may be limited because their prices are set in a market that includes competitors located outside the jurisdiction of the proposed rules. To the extent CAGMs did 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.

Further details on these cost estimates can be found in the attached tables.

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<sup>1</sup> The metal HAPs regulated by the proposed rule include arsenic, cadmium, chromium, lead, manganese and nickel.

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.	<ul style="list-style-type: none"> <li>• Four CAGMs directly impacted by the rule.</li> <li>• Some other small businesses may be indirectly impacted if they are customers of CAGMs.</li> </ul>
b) Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.	<ul style="list-style-type: none"> <li>• Tier 1 CAGMs would be required to obtain an Air Contaminant Discharge Permit 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.</li> <li>• CAGMs complying using an emissions control device are required to do monitoring and reporting to show proper operation of the emissions control device.</li> <li>• CAGM 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.</li> </ul>
c) Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.	CAGM 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.

**DEQ**

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 (\$14,400 per facility) and annual fees (currently \$9,216 per facility) would be additional revenue to DEQ. However, those fee amounts would roughly 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 40 CFR Part 63 Subpart SSSSSS, the National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources (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.

### **Public**

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 and arsenic, two of the metal HAPs regulated by the rule, were 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. 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.

The compliance route chosen by many CAGM will likely be installation of a particulate matter control device such as a baghouse. 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. The proposed rules would create positive economic benefits and improvements in public health and welfare by reducing these emissions. DEQ currently does not have a monetary estimate of the value of avoided health impacts.

The source testing, modeling, and reporting components of the rule also 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.

The public would not incur direct compliance costs because they are not subject to the rule. 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.

### **Housing cost**

To comply with ORS 183.534, DEQ determined that the proposed rules may 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.

If a house is constructed using colored art glass as a material, and if CAGM increase their prices in response to the proposed rule, the cost of compliance with the rule could cause an increase in the cost to construct a home. 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.