

Secretary of State  
**STATEMENT OF NEED AND JUSTIFICATION**  
A Certificate and Order for Filing Temporary Administrative Rules  
accompanies this form

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4-21-16 1:59 PM  
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Department of Environmental Quality

340

Agency and Division

Administrative Rules Chapter Number

Air Quality 2016 Temporary Rules for Colored Art Glass Manufacturing

Rule Caption (Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.)

In the Matter of:

Air Quality 2016 Temporary Rules for Colored Art Glass Manufacturing

**Statutory Authority:**

ORS 468.020, 468A.025, 468A.040, 468A.310

**Other Authority:**

**Statutes Implemented:**

Stats. Implemented: ORS 468A.025, & 468A.040

**Need for the Temporary Rule(s):**

What need is DEQ trying to address?

DEQ is addressing the urgent need to control metals emissions from small colored art glass manufacturing facilities. As DEQ recently determined through air monitoring and facility inspections, uncontrolled glass furnaces processing colored glass to which arsenic, cadmium, chromium and nickel are added likely 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 showed metals concentrations at levels that can significantly increase risks of cancer and other health problems.

These rules are necessary to address a regulatory gap. No other state or federal standards currently apply to limit potentially unsafe levels of metal emissions from small colored art glass facilities. Waiting for longer-term state or federal solutions could result in unacceptably long periods of additional health risk for people living nearby.

National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Many times the NESHAPs apply only to major sources which are sources with 25 tons per year of total HAPs or 10 tons per year of an individual HAP. In some cases the NESHAPs regulate some smaller or area sources of HAPs.

In cases where there is no NESHAP for smaller sources, or where a source is too small to be regulated by an area source NESHAP, DEQ does not have air toxics regulations that apply. The category of small colored art glass facilities operating uncontrolled furnaces are below applicable NESHAP size thresholds and therefore not covered by federal standards.

How would the proposed rule address the need?

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

By prohibiting these facilities from using chromium VI, cadmium and arsenic before they install emission control devices, the temporary rules would immediately decrease risk from airborne metal exposure to people nearby, including children and other sensitive or vulnerable individuals. By prohibiting these businesses from using chromium III until DEQ establishes a maximum allowable usage rate, the temporary rules will ensure that facilities are not emitting potentially dangerous amounts of chromium VI.

**Documents Relied Upon, and where they are available:**

None

**Justification of Temporary Rule(s):**

What would the consequences be of not taking immediate action:

The consequences of the EQC not taking immediate action to adopt the proposed rules would be that emissions from colored art glass manufacturers could continue to cause elevated and possibly unsafe levels of metals in the Portland area.

The two colored art glass manufacturers entering into agreements with DEQ have been operating for 36 and 42 years respectively. Now that DEQ has verified monitoring and inspection data to show that the facilities have uncontrolled furnace emissions that can significantly increase risk of cancer and other diseases, the emissions must be controlled immediately to prevent any additional health burden to those already exposed and any unacceptable health risk to all people nearby.

DEQ is concerned about all potentially unsafe levels of metals, but in particular cadmium and chromium VI. Cadmium remains in the body for about 28 years. Any additional accumulation can contribute to cancer risk or kidney damage. It is imperative to avoid any additional exposure to cadmium for children at nearby childcare facilities and schools. Since chromium III heated in furnaces can produce some percentage of chromium VI, and this compound is acutely toxic and carcinogenic, the proposed rules to test for and set up an allowable usage rate of chromium III are immediately necessary to avoid any further public exposure to chromium VI.

The proposed action is to adopt rules to require colored art glass manufacturers to install emission control devices on glass-making furnaces. The proposed rules also prohibit using arsenic, cadmium and chromium VI and establish procedures to set levels of allowable chromium III usage that would protect public health. Under the conditions in glass production furnaces, some percentage of chromium III transforms to chromium VI.

Even though DEQ has signed, or plans to sign, agreements with two colored art glass manufacturers, these temporary rules provide a regulatory backstop in case there are issues with compliance or it takes time to process enforcement actions. In addition, DEQ is currently investigating several other small art glass manufacturing facilities in the Portland area that these regulations may need to control to protect public health.

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