**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**DIVISION 244**

**OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM**

General Provisions for Stationary Sources

**340-244-0010**

**Policy and Purpose**

The Environmental Quality Commission finds that certain air contaminants for which there are no ambient air quality standards may cause or contribute to an identifiable and significant increase in mortality or to an increase in serious irreversible or incapacitating reversible illness or to irreversible ecological damage, and are therefore considered to be hazardous air pollutants. It shall be the policy of the Commission that no person may cause, allow, or permit emissions into the ambient air of any hazardous substance in such quantity, concentration, or duration determined by the Commission to be injurious to public health or the environment. The purpose of this Division is to establish emissions limitations on sources of these air contaminants. In order to reduce the release of these hazardous air pollutants and protect public health and the environment, it is the intent of the Commission to adopt by rule within this Division the source category specific requirements that are promulgated by the EPA, and state standards to to reduce the release of these hazardous air pollutants. Furthermore, it is hereby declared the policy of the Commission that the standards contained in this Division are considered minimum standards, and as technology advances, protection of public health and the environment warrants, more stringent standards may be adopted and applied.

Stat. Auth.: ORS 468.020 & ORS 468A.310  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0100

**Colored Art Glass Manufacturing Facility Rules**

**340-244-9000**

**Applicability**

(1) Notwithstanding OAR 340 Division 246, this rule applies to facilities located within the Portland Air Quality Maintenance Area that:

(a) Manufacture colored glass for use in art, architecture, interior design and other similar decorative applications; or manufacture colored glass products for use by manufacturers of colored glass for use in art, architecture, interior design and other similar decorative applications;

(b) Manufacture 10 tons per year or more of colored glass using raw materials that contain compounds of any of the following: arsenic, cadmium, chromium, lead, manganese, or nickel; and

(c) Manufacture colored glass or colored glass products in glass-making furnaces that vent directly to the outside atmosphere.

(2) The requirements of this rule do not apply to glass-making furnaces that do not vent directly to the outside atmosphere or are not used to manufacture colored glass using raw materials that contain compounds of arsenic, cadmium, chromium, lead, manganese, and nickel.

Stat. Auth.: ORS 468.020, 468A. 025, & 468A.040   
Stats. Implemented: ORS 468A.025, & 468A.040

**340-244-9010**

**Definitions**

The definitions in OAR 340-200-0020 and this rule apply to this division. If the same term is defined in this rule and 340-200-0020, the definition in this rule applies to this division.

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(2) “Batch” means the quantity of material prepared or required for one operation; specifically :  a mixture of raw materials ready for fusion into glass; the quantity produced at one operation;

(3) “Chromium III” means chromium in the +3 oxidation state, also known as trivalent chromium;

(4) “Chromium VI” means chromium in the +6 oxidation state, also known as hexavalent chromium;

(5) “Chromium”, without a following roman numeral, means chromium in any oxidation state;

(6) “Controlled” means the glass-making furnace emissions are treated by an emission control device approved by DEQ;

(7) “Cullet” means recycled glass that is mixed with raw materials and charged to glass melting furnace to produce glass. Cullet is not considered to be a raw material;

(99) “Emission control device” means control device as defined in OAR 340 Division 200.

(8) “Raw material” means minerals, such as silica sand, limestone, and dolomite; inorganic chemical compounds, such as soda ash (sodium carbonate), salt cake (sodium sulfate), and potash (potassium carbonate); metal oxides and other metal-based compounds, such as lead oxide, chromium oxide, and sodium antimonate; metal ores, such as chromite and pyrolusite; and other substances that are intentionally added to a glass manufacturing batch and melted in glass melting furnace to produce glass. Metals that are naturally-occurring trace constituents or contaminants of other substances are not considered to be raw materials. Cullet and material that is recovered from a furnace control device for recycling into the glass formulation are not considered to be raw materials;

(9) “Uncontrolled” means the glass-making furnace emissions are not treated by an emission control device approved by DEQ; and

(10) “Week” means Sunday through Saturday.

Stat. Auth.: ORS 468.020, 468A. 025, & 468A.040   
Stats. Implemented: ORS 468A.025, & 468A.040

**340-244-9020**

**Emission Control Devices**

No later than September 1, 2016:

(1) The owner/operator must install one or more emission control devices to control all glass-making furnaces that use raw material containing any of the following metals: arsenic, cadmium, chromium or nickel; and

(2) Each emission control device must meet either of the following requirements: 99.0% removal efficiency for particulate matter as measured by DEQ Method 5 or 0.2 pounds of particulate matter per ton of glass produced as measured by EPA Method 5 and EPA Method 202 or 0.02 lbs of metals as measured by EPA method 29.

(3) Emission control device requirements:

(a) The design of all emission control devices must be approved by DEQ before installation.

(b) The owner/operator must submit a Notice of Intent to Construct in accordance with OAR 340-210-0205 through 340-210-0250 no later than 15 days prior to the date installation begins. If DEQ does not deny or approve the Notice of Intent to Construct within 10 days of receipt of the Notice, the Notice will be deemed to be approved.

(c) Emission control devices may control emissions from more than one furnace.

(d) Each emission control device must be equipped with the monitoring device or devices specified by DEQ in DEQ’s approval of the Notice of Intent to Construct required in subsection (b).

(e) Each emission control device must be equipped with inlet ducting that provides the following:

(A) Sufficient cooling of exhaust gases to no more than the maximum design inlet temperature under worst-case conditions; and

(B) Provision for inlet emissions testing, including sufficient duct diameter, sample ports, undisturbed flow conditions, and access for testing.

(f) Each emission control device must be equipped with outlet ducting that provides for outlet emissions testing, including sufficient duct diameter, sample ports, undisturbed flow conditions, and access for testing.

(A) After commencing operation of any emission control device, the owner/operator must observe and record the parameters specified by DEQ in DEQ’s approval of the Notice of Intent to Construct, required in subsection (b).

(B) The owner/operator must perform the following source testing on at least one controlled glass-making furnace approved by DEQ to demonstrate compliance with either requirement in section (2). Source testing done under OAR 340-244-9030(4) may be used in whole or in part to comply with this paragraph.

(i) Within 60 days of commencing operation of the emission control devices, test control device inlet and outlet for particulate matter using DEQ Method 5 or comparable method;

(ii) A source test plan must be submitted at least 30 days before conducting the source test; and

(iii) The source test plan must be approved by DEQ before conducting the source test.

Stat. Auth.: ORS 468.020, 468A. 025, & 468A.040   
Stats. Implemented: ORS 468A.025, & 468A.040

**340-244-9030**

**Operating Restrictions**

(1) The owner/operator must not use arsenic, cadmium or chromium VI in raw materials in any glass-making furnace that is not controlled by an emission control device approved by DEQ.

(2) The owner/operator must comply with either section (3) (Option 1) or section (4) (Option 2), and may comply with both but is not required to comply with both.

(3) Option 1: The owner/operator must not use chromium III in uncontrolled glass-making furnaces until DEQ establishes a maximum allowable chromium III usage rate for uncontrolled glass-making furnaces that will not result in ambient concentrations that exceed 1.6 ng/m3 of chromium VI. Thereafter, the owner/operator must comply with the maximum allowable chromium III usage rate for uncontrolled glass-making furnaces established by DEQ. For the purpose of establishing a maximum allowable chromium III usage rate, the following are required:

(a) Performing a source test in an uncontrolled furnace or at the inlet of an emission control device as specified below:

(A) Test using DEQ approved protocols and methods for total chromium and chromium VI and submit a source test plan detailing the approach to DEQ for approval;

(B) Test while making a glass that DEQ agrees is made under the most oxidizing combustion conditions and that contains a high percentage of chromium III as compared to other formulas used by the owner/operator;

(C) Keep records of the amount of chromium III used in the batches that are produced during the source test runs, as well as other operational parameters identified in the source test plan; and

(D) Prior to the source test, clean the furnace stack in a manner that has been approved by DEQ and complies with applicable OSHA standards, or replace the furnace stack to be tested.

(b) Performing dispersion modeling to determine the ambient concentrations of the owner/operator’s air emissions at nearby and adjacent receptors as follows:

(A) Submit a modeling protocol for approval by DEQ;

(B) Use the maximum chromium VI emission rate;

(C) Determine the impact at receptors approved by DEQ; and

(D) Establish a maximum chromium III usage so as not to exceed an ambient concentration of 1.6 ng/m3 of chromium VI.

(c) The owner/operator must keep daily records of all batches produced and provide to DEQ, each week, the daily amount of DEQ monitored metals used.

(4) Option 2: The owner/operator must not use chromium III in controlled or uncontrolled glass-making furnaces until DEQ establishes maximum allowable chromium III usage rates for uncontrolled or controlled glass-making furnaces that will not result in ambient concentrations that exceed 1.6 ng/m3 of chromium VI. Thereafter, the owner/operator must comply with the maximum allowable chromium III usage rates for uncontrolled or controlled glass-making furnaces established by DEQ. For the purpose of establishing maximum allowable chromium III usage rates, the following are required:

1. Performing a source test as specified below:

(A) Test using DEQ approved protocols and methods for total chromium, chromium VI, and particulate matter (DEQ Method 5) and submit a source test plan detailing the approach to DEQ for approval;

(B) Test for chromium and chromium VI at the outlet of the emission control device, and test for particulate matter at both the inlet and the outlet of the emission control device;

(C) Test while making a glass that DEQ agrees is made under the most oxidizing combustion conditions and that contains a high percentage of chromium III as compared to other formulas used by the owner/operator;

(D) Keep records of the amount of chromium III used in the batches that are produced during the source test runs, as well as other operational parameters identified in the source test plan; and

(a) Performing dispersion modeling to determine the ambient concentrations of the owner/operator’s air emissions at nearby and adjacent receptors as follows:

(A) Submit a modeling protocol for approval by DEQ;

(B) Use the maximum chromium VI emission rate;

(C) Determine the impact at receptors approved by DEQ; and

(D) Establish a maximum chromium III usage so as not to exceed an ambient concentration of 1.6 ng/m3 of chromium VI.

(b) The owner/operator must keep daily records of all batches produced and provide to DEQ, each week, the daily amount of DEQ monitored metals used.

(5) The owner/operator may apply source testing protocols equivalent to those in section (4) to the use of chromium VI in a glass-making furnace to establish maximum usage rates for chromium VI in controlled glass-making furnaces that will not result in ambient concentrations that exceed 1.6 ng/m3 of chromium VI.

(6) The owner/operator is not restricted on the raw materials that may be used in glass-making furnaces that are controlled by an emission control device approved by DEQ, except that the use of chromium III and chromium VI will be subject to maximum usage rates determined by DEQ.

Stat. Auth.: ORS 468.020, 468A. 025, & 468A.040   
Stats. Implemented: ORS 468A.025, & 468A.040

**340-244-9040**

**Other Metals**

If DEQ determines that ambient concentrations of lead, nickel or manganese are of concern in the area where an affected source is located, then DEQ will establish case-by-case limits to restrict the use of the metal of concern to amounts that are protective of ambient concentrations in an agreement or a permit. DEQ will use the best information available to establish the limits. Exceeding the limits established under the authority of this rule is a violation of this rule.