

2.30 Glass Manufacturing Plants

2.30.1 Applicability and Designation of Affected Facility

- (a) Each glass melting furnace is an affected facility to which the provisions of this source category apply.
- (b) Any facility under paragraph (a) is subject to the requirements of this source category.

2.30.2 Test Methods and Procedures

- (a) If a glass melting furnace with modified processes is changed to one without modified processes or if a glass melting furnace without modified processes is changed to one with modified processes, the owner or operator shall notify the Director at least 60 days before the change is scheduled to occur.
- (b) When gaseous and liquid fuels are fired simultaneously in a glass melting furnace, the owner or operator shall determine the applicable standard under §60.292(a)(2) as follows:

- (1) The ratio (Y) of liquid fuel heating value to total (gaseous and liquid) fuel heating value fired in the glass melting furnaces shall be computed for each run using the following equation:

$$Y = (H_l L) / (H_l L + H_g G)$$

Where:

Y = decimal fraction of liquid fuel heating value to total fuel heating value.

H_l = gross calorific value of liquid fuel, J/kg.

H_g = gross calorific value of gaseous fuel, J/kg.

L = liquid flow rate, kg/hr.

G = gaseous flow rate, kg/hr.

- (2) Suitable methods shall be used to determine the rates (L and G) of fuels burned during each test period and a material balance over the glass melting furnace shall be used to confirm the rates.
 - (3) American Society of Testing and Materials (ASTM) Method D 240 (liquid fuels) and D 1826 (gaseous fuels) (incorporated by reference--see Section 1.6), as applicable, shall be used to determine the gross calorific values.
- (c) In conducting the performance tests required in Section 1.2, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of this part or other methods and procedures as specified in this section, except as provided in Section 1.2(b).

(d) The owner or operator shall determine compliance with the particulate matter standards in §§60.292 and 60.293^{*} as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (C_s Q_{sd} - A) / P$$

Where:

E = emission rate of particulate matter, g/kg.

C_s = concentration of particulate matter, g/dsm.

Q_{sd} = volumetric flow rate, dscm/hr.

A = zero production rate correction

= 227 g/hr for container glass, pressed and blown (soda-lime and lead) glass, and pressed and blown (other than borosilicate, soda-lime, and lead) glass.

= 454 g/hr for pressed and blown (borosilicate) glass, wool fiberglass, and flat glass.

P = glass production rate, kg/hr.

(2) Method 5 shall be used to determine the particulate matter concentration (C_s) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). The probe and filter holder heating system may be set to provide a gas temperature no greater than 177°±14°C (350°±25°F), except under the conditions specified in §60.293(f)^{*}.

(3) Direct measurement or material balance using good engineering practice shall be used to determine the amount of glass pulled during the performance test. The rate of glass produced is defined as the weight of glass pulled from the affected facility during the performance test divided by the number of hours taken to perform the performance test.

(4) Method 9 and the procedures in Section 1.3 shall be used to determine opacity.

(e) The owner or operator shall determine compliance with any other particulate matter standards (e.g., State of Georgia) as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = C_s Q_{sd}$$

where E, C_s and

Q_{sd} have the meaning as defined in paragraph (d)(1) above.

- (2) Method 5 shall be used to determine the particulate matter concentration (c_s) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). The probe and filter holder heating system may be set to provide a gas temperature no greater than $177^{\circ}\pm 14^{\circ}\text{C}$ ($350^{\circ}\pm 25^{\circ}\text{F}$), except under the conditions specified in §60.293(f)^{*}.

2.30.3 Emission Monitoring

For sources subject to the particulate matter standards under §60.293(b)^{*}, the owner or operator of an affected facility shall follow the requirements specified in §60.293(c) through (f)^{*}.

^{*}Code of Federal Regulations, Title 40, Part 60.