

melting furnaces, or pots, to form filaments that are drawn down and attenuated by passing in front of a high-velocity gas burner flame.

Glass-melting furnace means a unit comprising a refractory vessel in which raw materials are charged, melted at high temperature, refined, and conditioned to produce molten glass. The unit includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, melter cooling system, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation, and appendages for conditioning and distributing molten glass to forming processes. The forming apparatus, including flow channels, is not considered part of the glass-melting furnace.

Glass pull rate means the mass of molten glass that is produced by a single glass-melting furnace or that is used in the manufacture of wool fiberglass at a single manufacturing line in a specified time period.

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to section 112(b) of the Clean Air Act.

Heavy-density product means bonded wool fiberglass insulation manufactured on a flame attenuation manufacturing line and having a loss on ignition of 11 to 25 percent and a density of 8 to 48 kg/m³ (0.5 to 3 lb/ft³).

Incinerator means an enclosed air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases.

Loss on ignition (LOI) means the percent decrease in weight of wool fiberglass after it has been ignited. The LOI is used to monitor the weight percent of binder in wool fiberglass.

Manufacturing line means the manufacturing equipment for the production of wool fiberglass that consists of a forming section where molten glass is fiberized and a fiberglass mat is formed and which may include a curing section where binder resin in the mat is thermally set and a cooling section where the mat is cooled.

New source means any affected source the construction or reconstruction of

which is commenced after March 31, 1997.

Pipe product means bonded wool fiberglass insulation manufactured on a flame attenuation manufacturing line and having a loss on ignition of 8 to 14 percent and a density of 48 to 96 kg/m³ (3 to 6 lb/ft³).

Rotary spin means a process used to produce wool fiberglass building insulation by forcing molten glass through numerous small orifices in the side wall of a spinner to form continuous glass fibers that are then broken into discrete lengths by high-velocity air flow. Any process used to produce bonded wool fiberglass building insulation by a process other than flame attenuation is considered rotary spin.

Wool fiberglass means insulation materials composed of glass fibers made from glass produced or melted at the same facility where the manufacturing line is located.

Wool fiberglass manufacturing facility means any facility manufacturing wool fiberglass on a rotary spin manufacturing line or on a flame attenuation manufacturing line.

§ 63.1382 Emission standards

(a) *Emission limits*—(1) *Glass-melting furnaces*. On and after the date the initial performance test is completed or required to be completed under § 63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace.

(2) *Rotary spin manufacturing lines*. On and after the date the initial performance test is completed or required to be completed under § 63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of:

- (i) 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled for each existing rotary spin manufacturing line; and
- (ii) 0.4 kg of formaldehyde per megagram (0.8 lb of formaldehyde per ton) of glass pulled for each new rotary spin manufacturing line.

(3) *Flame attenuation manufacturing lines.* On and after the date the initial performance test is completed or required to be completed under § 63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of:

(i) 3.9 kg of formaldehyde per megagram (7.8 lb of formaldehyde per ton) of glass pulled for each new flame attenuation manufacturing line that produces heavy-density wool fiberglass; and

(ii) 3.4 kg of formaldehyde per megagram (6.8 lb of formaldehyde per ton) of glass pulled from each existing or new flame attenuation manufacturing line that produces pipe product wool fiberglass.

(b) *Operating limits.* On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.1384 is completed, the owner or operator must operate all affected control equipment and processes according to the following requirements.

(1)(i) The owner or operator must initiate corrective action within 1 hour of an alarm from a bag leak detection system and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the bag leak detection system alarm is sounded for more than 5 percent of the total operating time in a 6-month block reporting period.

(2)(i) The owner or operator must initiate corrective action within 1 hour when any 3-hour block average of the monitored electrostatic precipitator (ESP) parameter is outside the limit(s) established during the performance test as specified in § 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored ESP parameter is

outside the limit(s) established during the performance test as specified in § 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate the ESP such that the monitored ESP parameter is not outside the limit(s) established during the performance test as specified in § 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(3)(i) The owner or operator must initiate corrective action within 1 hour when any 3-hour block average temperature of a cold top electric furnace as measured at a location 46 to 61 centimeters (18 to 24 inches) above the molten glass surface, exceeds 120 °C (250 °F) and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator of a cold top electric furnace must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the temperature, as measured at a location 46 to 61 centimeters (18 to 24 inches) above the molten glass surface, exceeds 120 °C (250 °F) for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate the cold top electric furnace such that the temperature does not exceed 120 °C (250 °F) as measured at a location 46 to 61 centimeters (18 to 24 inches) above the molten glass surface, for more than 10 percent of the total operating time in a 6-month reporting period.

(4)(i) The owner or operator must initiate corrective action within 1 hour when any 3-hour block average value for the monitored parameter(s) for a glass-melting furnace, which uses no add-on controls and which is not a cold top electric furnace, is outside the limit(s) established during the performance test as specified in § 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the

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compliance assurance monitoring provisions of 40 CFR Part 64 subpart D when the monitored parameter(s) is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate a glass-melting furnace, which uses no add-on controls and which is not a cold top electric furnace, such that the monitored parameter(s) is not outside the limit(s) established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(5)(i) The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in §63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(6) The owner or operator must operate each incinerator used to control formaldehyde emissions from forming or curing such that any 3-hour block average temperature in the firebox does not fall below the average estab-

lished during the performance test as specified in §63.1384.

(7)(i) The owner or operator must initiate corrective action within 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for any 3-hour block period is outside the limits established during the performance tests as specified in §63.1384 for each wet scrubbing control device and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(8)(i) The owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in §63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the process parameter(s) is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as

specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(9) The owner or operator must use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in §63.1384.

(10) The owner or operator must use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in §63.1384. For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation.

§63.1383 Monitoring requirements.

On and after the date on which the performance test required to be conducted by §§63.7 and 63.1384 is completed, the owner or operator must monitor all affected control equipment and processes according to the following requirements.

(a) The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace, rotary spin manufacturing line, and flame attenuation manufacturing line subject to the provisions of this subpart, a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information:

(1) Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in §63.1382;

(2) Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

(3) Corrective actions to be taken when process parameters or add-on control device parameters deviate from

the limit(s) established during initial performance tests.

(b)(1) Where a baghouse is used to control PM emissions from a glass-melting furnace, the owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must produce output of relative PM emissions.

(iii) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system must be installed downstream of the baghouse. Where multiple bag leak detection systems are required (for either type of baghouse), the system instrumentation and alarm may be shared among the monitors.

(v) A triboelectric bag leak detection system shall be installed, operated, adjusted, and maintained in a manner consistent with the U.S. Environmental Protection Agency guidance, "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems shall be installed, operated, adjusted, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(vi) Initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(vii) Following the initial adjustment, the owner or operator shall not