

**§ 63.2992**

(c) *To change your OMM plan.* You must conduct a performance test according to the requirements specified in § 63.2992 to change the limit or range for any operating limit specified in your OMM plan established during a previous compliance test.

**§ 63.2992 How do I conduct a performance test?**

(a) You must verify the performance of monitoring equipment as specified in § 63.2994 before performing the test.

(b) You must conduct the performance test according to the procedures in § 63.7.

(c) You must conduct the performance test under the conditions specified in paragraphs (c)(1) and (2) of this section.

(1) The resin must have the highest specified free-formaldehyde content that will be used.

(2) You must operate at the maximum feasible urea-formaldehyde resin solids application rate (pounds urea-formaldehyde resin solids applied per hour) that will be used.

(d) During the performance test, you must monitor and record the operating parameters that you will use to demonstrate continuous compliance after the test. These parameters are listed in table 1 of this subpart.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction as specified in § 63.7(e)(1).

(f) You must conduct three separate test runs for each performance test as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

**§ 63.2993 What test methods must I use in conducting performance tests?**

(a) Use EPA Method 1 (40 CFR part 60, appendix A) for selecting the sampling port location and the number of sampling ports.

(b) Use EPA Method 2 (40 CFR part 60, appendix A) for measuring the volumetric flow rate.

(c) Use EPA Method 316 or 318 (40 CFR part 63, appendix A) for measuring the concentration of formaldehyde.

(d) Use the method contained in appendix A of this subpart or the resin purchase specification and the vendor specification sheet for each resin lot

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for determining the free-formaldehyde content in the urea-formaldehyde resin.

(e) Use the method in appendix B of this subpart for determining product loss-on-ignition.

**§ 63.2994 How do I verify the performance of monitoring equipment?**

(a) Before conducting the performance test, you must take the steps listed in paragraphs (a)(1) and (2) of this section:

(1) Install and calibrate all process equipment, control devices, and monitoring equipment.

(2) Conduct a performance evaluation of the continuous monitoring system (CMS) according to § 63.8(e) which specifies the general requirements and requirements for notifications, the site-specific performance evaluation plan, conduct of the performance evaluation, and reporting of performance evaluation results.

(b) If you use a thermal oxidizer, the temperature monitoring device must meet the performance and equipment specifications listed in paragraphs (b)(1) through (3) of this section:

(1) The temperature monitoring device must be installed either at the exit of the combustion zone of each thermal oxidizer, or at the location specified by the manufacturer. The temperature monitoring device must also be installed in a location before any heat recovery or heat exchange equipment, and it must remain in the same location for both the performance test and the continuous monitoring of temperature.

(2) The recorder response range must include zero and 1.5 times the average temperature required in § 63.2984(a)(1).

(3) The measurement method or reference method for calibration must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference subject to the approval of the Administrator.

**§ 63.2995 What equations must I use to determine compliance?**

(a) *Percent reduction for formaldehyde.* To determine compliance with the percent reduction formaldehyde emission

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standard, use equation 1 of this section as follows:

$$E_f = \frac{M_i - M_o}{M_i} \times 100 \quad (\text{Eq. 1})$$

Where:

$E_f$  = Formaldehyde control efficiency, percent.

$M_i$  = Mass flow rate of formaldehyde entering the control device, kilograms (pounds) per hour.

$M_o$  = Mass flow rate of formaldehyde exiting the control device, kilograms (pounds) per hour.

(b) *Formaldehyde mass emissions rate.*

To determine compliance with the kilogram per megagram (pound per ton) formaldehyde emission standard, use equation 2 of this section as follows:

$$E = \frac{M}{P} \quad (\text{Eq. 2})$$

Where:

$E$  = Formaldehyde mass emissions rate, kilograms (pounds) of formaldehyde per megagram (ton) of fiberglass mat produced.

$M$  = Formaldehyde mass emissions rate, kilograms (pounds) per hour.

$P$  = The wet-formed fiberglass mat production rate during the emissions sampling period, including any material trimmed from the final product, megagrams (tons) per hour.

(c) *Urea-formaldehyde (UF) resin solids application rate.* To determine the UF resin solids application rate, use equation 3 of this section as follows:

$$\frac{\text{UF Solids}}{\text{Hour}} = \text{LOI} \times \text{UFL} \times \text{MW} \times \text{SQ} \quad (\text{Eq. 3})$$

Where:

UF solids/hour = UF resin solids application rate (pounds per hour).

LOI = loss on ignition (weight fraction), or pound of organic binder per pound of mat.

UFL = UF-to-latex ratio in the binder (mass fraction of UF resin solids in total combined resin solids for UF and latex), or pound of UF solids per pound of total resin solids (UF and latex).

MW = weight of the final mat per square (pounds per roofing square).

SQ = roofing squares produced per hour.

### MONITORING REQUIREMENTS

#### § 63.2996 What must I monitor?

You must monitor the parameters listed in table 1 of this subpart and any other parameters specified in your OMM plan. The parameters must be monitored, at a minimum, at the corresponding frequencies listed in table 1 of this subpart.

#### § 63.2997 What are the requirements for monitoring devices?

(a) If formaldehyde emissions are controlled using a thermal oxidizer, you must meet the requirements in paragraphs (a)(1) and (2) of this section:

(1) Install, calibrate, maintain, and operate a device to monitor and record

continuously the thermal oxidizer temperature at the exit of the combustion zone before any substantial heat exchange occurs or at the location consistent with the manufacturer's recommendations.

(2) Continuously monitor the thermal oxidizer temperature and determine and record the average temperature in 15-minute and 3-hour block averages. You may determine the average temperature more frequently than every 15 minutes and every 3 hours, but not less frequently.

(b) If formaldehyde emissions are controlled by process modifications or a control device other than a thermal oxidizer, you must install, calibrate, maintain, and operate devices to monitor the parameters established in your OMM plan at the frequency established in the plan.

### NOTIFICATIONS, REPORTS, AND RECORDS

#### § 63.2998 What records must I maintain?

You must maintain records according to the procedures of § 63.10. You must maintain the records listed in paragraphs (a) through (g) of this section.