

The following pages were inadvertently omitted from the 2006 UL Standards as Referenced in the 2006 UBC.

These pages are part of UL 1715 and should be inserted between pages 1332 and 1333 of the existing book.

## 9.2 Test measurement thermocouples

9.2.1 Test measurement thermocouples are to be constructed of No. 24 gauge (1.60 mm<sup>2</sup>) bare chromel-alumel wire. The thermocouple wire within 0.5 inch (13 mm) of the thermocouple junction is to be positioned along projected isotherms to minimize conduction errors. The insulation between the chromel and alumel wires is to be stable at a temperature of no less than 2000°F (1100°C), otherwise the thermocouple wires are to be separated.

9.2.2 One thermocouple is to be placed at each of the following five locations (see Figure 9.1):

- a) One inch (25.4 mm) below the ceiling and 4 feet (1.22 m) from both intersecting sample walls (thermocouple No. 1).
- b) One inch below the ceiling, 4 feet from the back wall and 3 inches (76 mm) from the side wall (thermocouple No. 6).
- c) Three feet (914 mm) below the ceiling, 4 feet from the back wall, and 3 inches (76 mm) from the side wall (thermocouple No. 7).
- d) One inch below the ceiling, 8 feet from the 8 foot sample wall and 3 inches from the side wall (thermocouple No. 8).
- e) Centered in the interior plane of the door opening 1 inch below the top of the opening (thermocouple No. 9).

9.2.3 All thermocouples are to be monitored at maximum 30-second intervals.

## 9.3 Visual records

9.3.1 Photographic equipment consisting of a 35-mm camera and either a Super 8 or 16-mm motion picture camera, or video film is to be used to document flame propagation, smoke development and flame projection from the intersecting corners of the assembly. The cameras are to be located 10 feet (3.04 m) from the door opening to avoid interference with air movement into the room. Color slides are to be taken at 15-second intervals for the first 5 minutes of the test and at least 30-second intervals for the duration of the test.

## 10 Test Procedure

10.1 All recording devices are to be activated and steady-state baseline readings are to be maintained for at least 1 minute prior to the start of the test.

10.2 The ignition source is to be ignited in accordance with the following procedure and the time record simultaneously initiated:

a) A base is to be prepared for placement of the wood crib by using four brick pieces, each nominally 4 by 4 by 3 inches (102 by 102 by 76 mm), positioned to provide a nominal 3 inch (76 mm) space between the floor and the lower surface of the crib. A 1 pound (0.45 kg) pile of shredded wood excelsior, fully fluffed, is to be arranged among the bricks, and is to cover an area nominally 21 by 21 inches (533 by 533 mm). The excelsior is to be wetted with 4 ounces (118 ml) of absolute ethyl alcohol and the crib set in place on the bricks at a horizontal distance of 1 inch (25.4 mm) from the surface of each intersecting wall.

b) The excelsior within the crib is to be ignited at several points using a fireplace match or the equivalent. At ignition, flame is to progress steadily through the dry excelsior to the alcohol wetted portion, and at this point flames are to move rapidly through the remaining excelsior to provide uniform application of ignition flame beneath the crib.

10.3 Immediately following ignition, the photographic recording equipment is to be energized.

10.4 A continuous voice or written record of the fire growth is to be provided to indicate times of all significant events such as flame attachment to the wall, flame projection, flameover and smoke development.

10.5 The test is to be terminated at 15 minutes, unless safety considerations dictate an early termination.

10.6 The damage resulting from the test is to be photographed and described.

## **REPORT**

### **11 General**

#### **11.1 Materials**

11.1.1 The report is to contain information as to materials mounting and conditioning, and the layout of specimens and attachments in the test room.

#### **11.2 Humidity and temperature**

11.2.1 Relative humidity and temperature within the test building prior to the test are to be recorded.

#### **11.3 Temperature development**

11.3.1 Time history of temperature development within the room and at the doorway is to be reported starting 1 minute prior to the test.

#### **11.4 Time history of fire growth**

11.4.1 Provide photographs, a video tape, an audio tape of the observations, and a written report as test records. These records are to indicate:

- a) The time of ignition of the test material,
- b) The extension of the flame front and time of occurrence,
- c) The time of flameover, if any, and
- d) Time and progression of smoke development.

#### **11.5 Specimen conditions**

11.5.1 Observations on the condition of the test specimen after the test shall be observed and recorded. Photographs showing the extent of the damage of the materials at the conclusion of the test are also to be supplied.

No Text on This Page