INTERNATIONAL BUILDING CODE – FIRE SAFETY

FS5-07/08, Part I
202 (New)

Proponent: Marcelo M. Hirschler, GBH International, representing the American Fire Safety Council

Proposed Change as Submitted:

PART I – IBC FIRE SAFETY

Add new definition as follows:

SECTION 202
DEFINITIONS

NONCOMBUSTIBLE MATERIAL. A material that, under the conditions anticipated, will not ignite or burn when subjected to fire or heat. Materials that pass ASTM E 136 are considered noncombustible materials. 

Reason: There is a need for a consistent definition of "noncombustible material" in all ICC codes that use the term. The codes that use the term are IMC, IBC, IRC, IFC, IEBC, IWUIC and IFGC. It is also used in an appendix of the performance code, but a definition in that code is probably not necessary. Throughout the ICC code system, the concept of "noncombustible material" is based on two aspects: (a) it should not ignite or burn when subjected to fire or heat and (b) it should pass the ASTM E 136 conditions. Therefore, the definition proposed addresses both of these aspects and is identical for all codes.

In the case of the three codes, IMC, IBC and IWUIC, there are additional requirements or issues associated with the use of the term noncombustible material. It is proposed that these should be addressed outside of the definitions, in the relevant chapters. Separate proposals will be made to the IMC, IBC and IWUIC to suggest how to address these requirements for noncombustible materials.

For information purposes, the following is included in the IBC:

703.4 Noncombustibility tests. The tests indicated in Sections 703.4.1 and 703.4.2 shall serve as criteria for acceptance of building materials as set forth in Sections 602.2, 602.3 and 602.4 in Type I, II, III and IV construction. The term "noncombustible" does not apply to the flame spread characteristics of interior finish or trim materials. A material shall not be classified as a noncombustible building construction material if it is subject to an increase in combustibility or flame spread beyond the limitations herein established through the effects of age, moisture or other atmospheric conditions.

703.4.1 Elementary materials. Materials required to be noncombustible shall be tested in accordance with ASTM E 136.

703.4.2 Composite materials. Materials having a structural base of noncombustible material as determined in accordance with Section 703.4.1 with a surfacing not more than 0.125 inch (3.18 mm) thick that has a flame spread index not greater than 50 when tested in accordance with ASTM E 84 or UL 723 shall be acceptable as noncombustible materials.

Also, for information purposes, the following definitions are used for the term in ASTM E 176 (ASTM terminology of fire standards) and in NFPA 101 and 5000.

ASTM E 176:
non-combustible, adj — not capable of undergoing combustion under specified conditions. (Contrast combustible.)

DISCUSSION—In fire testing, non-combustibility is often assessed by means of ASTM E 136 or ISO 1182.

NFPA 101 and NFPA 5000:
Noncombustible Material. A material that, in the form in which it is used and under the conditions anticipated, will not ignite, burn, support combustion, or release flammable vapors, when subjected to fire or heat. Materials that are reported as passing ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C, shall be considered noncombustible materials.

Cost Impact: This proposal should not increase the cost of construction.

Analysis: Review of proposed new standard ASTM E136-04 indicated that, in the opinion of ICC Staff, the standard did comply with ICC standards criteria.

PART I – IBC FIRE SAFETY
Committee Action: Disapproved

Committee Reason: The committee felt that the proposed definition of noncombustible material was unclear as to what materials had to be tested for noncombustibility in accordance with ASTM E136.

Assembly Action: None

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Tony Crimi, A.C. Consulting Solutions Inc., representing Southwest Research Institute requests Approved as Modified by this public comment for Part I.