

ICC Code Technology Committee

**Balanced Fire Protection
Vertical openings study group**

Staff Notes

**Embassy Suites
Atlanta Airport
March 29, 2007**

Chair Bukowski initiated the meeting at approximately 8:15 am on March 29, 2007.

Members present: Dick Bukowski (Chair, CTC), Ron Clements, Sam Francis, Greg Keith, Vickie Lovell, Bill McHugh, Rich Walke

Interested parties present: Dave Collins, Dave Frable, Paul Heilstedt, Bill Koffel, Jim Messersmith, Larry Perry, Carl Wren, Thom Zarembo

Staff present: Pfeiffer

Dick Bukowski noted the initial focus of the study group:

- Develop an acceptable fire and smoke migration strategy
- Define appropriate terms
- Develop structure/format for technical provisions.

Greg Keith introduced a “Discussion Draft” which served as the basis for the discussion, specifically the table on page 7 “Comparison of Migration Limits”. Issues/discussion:

- A “clean sheet” approach to establishing migration limits.
- Current base line is two-story intercommunication in most occupancies. Extreme – escalators and 4 stories. A NIST test for OSHA was cited, indicating that the with closely spaced sprinklers, all the CO₂ went up through the opening.
- Is there a difference between “types of holes” or is “a hole in the floor a hole in the floor?”
- Draft proposes a graduated system based on increasing levels of passive and active fire protection Suggested migration limits were established in a proposed Table 714.2 which were: No floor-to-floor migration permitted in buildings of Type IIB, IIIB or VB construction having no active fire protection features. Two-story migration permitted in buildings other than Type IIB, IIIB or VB construction. A one-story increase is permitted beyond the basic type of construction allowance for sprinklered buildings. Also, a one-story increase is permitted beyond the basic type of construction allowance for buildings having a mechanical smoke control system. The active fire protection increases are optional and additive for the purposes of defining migration limits within a given building. Former legacy code and current IBC atrium provisions serve as the precedent for increased migration limits due to active fire protection features. (from Greg Keith’s notes)
- Current code would allow for typical two-story migration regardless of the type of construction and this proposal would be more stringent in that regard. Why use TOC as basis? It was generally agreed that type of construction should not be a variable in the determination of migration limits.

Specific “Discussion draft” text issues:

- 714.2 Exception 1 there are other compartmentation requirements in the code.
- Definitions
 - Define compartment?
 - What’s an opening?
 - How is a penetration related to an opening?
 - Suggested definition for Opening : A breach in a building assembly necessary for utility, egress or architectural purposes.
- Shaft Enclosure types: utility, egress and atriums

Possible 07/08 Cycle code changes:

- Re-organize Chapter 7, not re-write
- Fix inconsistencies w/in Chapter 7 system
- Clarify role of a fire rated assembly – is it inherently some type of smoke partition/smoke barrier? If yes, to what level?
- It was noted also the potential to break out Chapter 7 fire mitigation versus smoke related but this may be longer term.

Action item:

- Greg will revise draft based on discussion/issues noted.

Next meeting: Conference call, May 17th at 12:00 Central.

Following the conference call, the SG tentatively set a meeting of the SG in Cincinnati the afternoon of June 18th. The results will be submitted to the CTC at their meeting June 20th, anticipating code changes for the 2007/2008 cycle deadline of August 20, 2007.

The meeting was adjourned at approximately 12:30 pm.