ICC/NFPA Code Update

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Overview

- Review of past activities
- Unresolved Issues
- Proposed changes being considered for 2021 I-codes
FCIA Proposal for IBC

- Revised text in Chapter 7
  - Requires installation in accordance with manufacturer’s instructions
  - Removed language “install so as not to dislodge”
FCIA Proposal for ICC Group B

- F 115 – Addresses inspection, testing, and maintenance of firestop systems and joint systems
  - Key requirement is to have drawings of fire and smoke rated construction
  - Also requires documentation when system repaired with a listed system
  - Committee Recommendation – Disapproval
    - Drawings will be costly to prepare
    - Documentation not available
  - Multiple Public Comments submitted on F 113 from FCAC
    - Final Action on F 113 – Approval As Modified by Public Comments
FCIA Proposal for ICC Group B

- Annual inspections of through penetration firestop systems in ALL buildings
  - Owner required be maintain an inventory
  - Where the system design number is known – inspect to listing criteria and manufacturers instructions.

- Impact on YOU?
Special Inspections

• 1705.17 Fire-resistant penetrations and joints. In high-rise buildings or in buildings assigned to Risk Category III or IV, special inspections for through-penetrations, membrane penetration firestops, fire-resistant joint systems and perimeter fire barrier systems that are tested and listed in accordance with Sections 714.3.1.2, 714.4.2, 715.3 and 715.4 shall be in accordance with Section 1705.17.1 or 1705.17.2

• “Broader” language in NFPA 5000
Inspection Standards

• [BF] 1705.17.1 Penetration firestops. Inspections of penetration firestop systems that are tested and listed in accordance with Sections 714.3.1.2 and 714.4.2 shall be conducted by an approved agency in accordance with ASTM E 2174.

• Similar language for joint

• Similar language in NFPA 5000

• Similar language in NFPA 101 as Annex notes
L-Ratings

- **714.4.4 Penetrations in smoke barriers.** Penetrations in *smoke barriers* shall be protected by an approved *through penetration firestop system* installed and tested in accordance with the requirements of UL 1479 for air leakage. The *L rating* of the system measured .... shall not exceed:
  - 1. 5.0 cfm per square foot (0.025 m$^3$/ s · m$^2$) of penetration opening for each *through-penetration firestop system*; or
  - 2. A total cumulative leakage of 50 cfm (0.024 m$^3$/s) for any 100 square feet (9.3 m$^2$) of wall area, or floor area.

- Similar language likely to be in NFPA 101 and NFPA 5000 (2018 Editions)
Marking of Barriers

- **703.7 Marking and identification.** Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with signs or stenciling in the concealed space. Such identification shall:.....

- Similar language likely to be in NFPA 101 and NFPA 5000 (2018 Editions)
Marking of Barriers
Inspection of Fire Protection Features

- Annual required by IFC
- Likely change in NFPA 1 (2018 Edition) to change five year intervals to three year intervals
ICC Code Development Cycle

• Public Proposal Deadline
  • January 8, 2018
  • Includes IFC
• Committee Hearings
  • April 15\textsuperscript{th} – 25\textsuperscript{th} – Columbus, OH
• Public Comment Deadline
  • July 16, 2018
• Final Action Hearings
  • October 24\textsuperscript{th}- 31\textsuperscript{st} – Richmond, VA
NFPA 1/101/5000 Cycle

- Association Technical Meeting
  - June 7, 2017
- Public Proposal Deadline
  - May 2018???
Unresolved Issues - Joints

• **[BS] JOINT.** The opening in or between adjacent assemblies that is created due to building tolerances, or is designed to allow independent movement of the building in any plane caused by thermal, seismic, wind or any other loading.

• How does this impact fire resistant joints?
  • **715.1 General.** Joints installed in or between fire-resistance rated walls, floor or floor/ceiling assemblies and roofs or roof/ceiling assemblies shall be protected by an approved fire-resistant joint system designed to resist the passage of fire for a time period not less than the required fire-resistance rating of the wall, floor or roof in or between which the system is installed.

• When are fire resistant joint systems required?
Unresolved Issues – EJ’s

- When should EJ’s be permitted?
- What is the process for using EJ’s?
Unresolved Issues – T-Ratings

• Should a T rating be required when the penetration is protected by a non-listed system (traditional means)?

• Last Cycle
  • FS 60 – Requires floor penetrations protected with non-listed systems to be in a concealed space
  • Discussion - Opposing testimony focused on roundabout way to require T-ratings, lack of data demonstrating a problem, and lack of a concealed space for many floor assemblies
  • Committee Recommendation – Disapproval
Unresolved Issues – “Marking” Penetrations

• Last Cycle
  • FS 5 – Added a requirement to “mark” penetration and joint systems where barriers need to be marked.
  • Discussion – Opposing testimony focused on cost, location (where to put it), durability of marking system, number of penetrations
  • Committee Recommendation – Disapproval (8-5)
    • Original motion was for approval but failed
    • One Committee member was concerned about the electronic system but several did not think it was needed
Unresolved Issues – Qualified Contractors

- Multiple previous attempts have not been successful
- Last Cycle
  - FS 54 – Requires qualified contractors in Group I-2
  - Discussion
    - Possible ASHE support but AHC voted to passively oppose
    - No testimony from health care industry
    - Opposing testimony focused on state licensing requirements, may expand to other uses, did not address other IEBC compliance methods, prefer special inspections, code officials to not want to qualify contractors
- Committee Recommendation – Disapproval
FCAC Agenda Items

• Protection of penetrations through exterior walls.
• Section 714.4.2, Exception 7 – Up to 2 hours.
  • 7. The ceiling membrane of 1- and 2-hour fire-resistance-rated horizontal assemblies is permitted to be interrupted with the double wood top plate of a wall assembly that is sheathed with Type X gypsum wallboard, provided that all penetrating items through the double top plates are protected in accordance with Section 714.4.1.1 or 714.4.1.2 and the ceiling membrane is tight to the top plates.
• Repairs to penetrations, joints and voids in IFC Chapter 7.
What Are Your Code Compliance Issues?
Questions?

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