Code Update

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Overview

• Schedule for ICC and NFPA codes
• Strategies for issues of interest to the FCIA and IFC
• Summary of “balanced design issues”
ICC Schedule

- June 1, 2009 – Deadline for proposals for this code change cycle
- October/November, 2009 – Code Development Committee hearings
- February 12, 2010 – Deadline for Public Comments
- Spring/Fall 2010 – Membership vote
- Publish 2012 Editions of I-Codes
NFPA 5000/101 Schedule

• Public Proposals - Fire Protection Features TC will meet in September, 2009
• Public Comments - 2010
• NFPA Membership vote – June, 2011
• Publish 2012 Editions of codes
FCIA Goals

• Increase fire/life safety in buildings using effective fire compartmentation strategies
• Assure proper installation, inspection, and maintenance of through penetration firestop systems
FCIA Implementation Strategies

- Modify existing codes and standards
- Education of code officials
- Prepare specifications
Occupancy Separations

• Recent Changes
  – 2006 IBC reduced requirements for separating certain occupancies
    • Some thought the change was not a technical change
  – FCIA and IFC jointly submitted a Public Comment to reverse the action
  – Code change proposals submitted last cycle to return to 2003 Code text/concepts
Occupancy Separations

• Which separations make the most sense to propose changes to?
  – Schools and assembly occupancies?
  – Offices and factories?
  – Retail and factories

• Note – this is not an issue in the NFPA process
Corridor Walls

• Current code text (NFPA and ICC) allows non-rated corridor walls in most occupancies when the building is protected with an automatic sprinkler system
  – Is this appropriate for all occupancies?
  – What is the performance of non-rated corridor walls?
  • Note that not all occupancies require corridor walls
Corridor Walls

- Previous attempts to require rated corridor walls in all occupancies or selected occupancies have failed

- Proposed strategies
  - Introduce requirements for non-rated corridor walls in selected occupancies
  - Require rated corridor walls based upon reliability of sprinkler system

  - Occupancy Factor for structural design
Height and Area

- Height and area study group giving considerable attention to compartmentation
- CA fire officials have expressed interest in the compartmentation approach
- May use NFPA 5000 Annex as a basis for ongoing work
  - Proposal this cycle used this approach with substantially larger fire compartment sizes
    - ISO fire flow formula
Height and Area

• Two cycles ago - 27 Proposals, all recommended for disapproval
• Task Group within CTC project
  – Goal was to submit a unified Public Comment
  – Change submitted last cycle to use compartmentation option
Balanced Design

• Height and area study group gave considerable attention to compartmentation
• CA fire officials have expressed interest in the compartmentation approach
• Used a modified NFPA 5000 Annex for proposal submitted last cycle with substantially larger fire compartment sizes
  • ISO fire flow formula
• Could the new concept be an Annex?
Height and Area

- Assumptions
  - Building height in feet is a function of type of construction
  - Building height in number of stories is a life safety issue
  - Overall building area is not as critical as individual compartment size
Height and Area

- NFPA - Typical compartment size is 12,000 sq. ft.
  - Based on fire flow capability
- Compartment size may be increased based upon sprinkler protection
  - NFPA 13 systems only
  - Factor varies per occupancy based upon fire data for extent of flame damage beyond the floor of origin
Height and Area

• Number of compartments
  – NFPA approach limits number of compartments similar to control area concept for hazardous materials

• Fire department access
  – NFPA requires direct access from the exterior for all nonsprinklered compartments
Height and Area

• Current Strategy
  – Can compartmentation be utilized as part of the height and area requirements?
  – How big should a compartment be?
  – What impact should sprinklers have on compartment size?
  – What changes should FCIA submit?
  – What proposals should FCIA support?
Vertical Openings

- Current CTC Working Group focusing on cleaning up issues in Chapter 7
  - Does not include the broad allowances to permit two, three, and four story unprotected openings in most occupancies based on
    - Sprinkler protection
    - Smoke control
Vertical Openings

- Primary issues
  - When a floor is required to have a rating but the Code permits openings in the floor do other openings/penetrations need to be protected?
Vertical Openings
Installation, Inspection, Maintenance

- Past Code Change (G7)
- Required submission of shop drawings for compartmentation features
  - Disapproved
- Fire alarm systems have requirements for shop drawings typically prepared by installing contractor with details of the system
Installation, Inspection, Maintenance

• Discussion points
  – NFPA 72 and NFPA 13 define details to be shown on shop drawings
  – No similar provision for walls
  – Multiple contractors
  – Information already on design documents

• Current strategy being considered
  – Limit proposal to firestop systems
Installation, Inspection, Maintenance

- Certified contractors/Inspection program
  - All jobs or is there a description based upon
    - Height nor area of building
    - Occupancy classification
  - Is this more of an education item?
    - If code officials better understand the issue would they be more likely to support a code change?
  - Is this an item to be included in the specifications for a project?
Installation, Inspection, Maintenance

- G9 (last cycle)
  - Requires inspection of fire rated construction, smoke barriers, penetrations, and protected openings
    - Disapproved
    - Committee was concerned with the laundry list of items to be inspected
    - Felt that other sections of the code required inspection
  - Do we limit this to firestop systems?
Installation, Inspection, Maintenance

• New requirement for annual inspection of compartmentation features in IFC

• Additional strategies
  – NFPA documents
    • NFPA 80
    • NFPA 221
Questions??

Thank you for your attention and participation