FCIA 2015 STRATEGY SESSION

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Expertly Engineering Safety From Fire
• What Code provision has given you the most problems this past year or so?
  ▪ Code
  ▪ Summary of provision
  ▪ Problem you encountered
OVERVIEW

• Overview of the ICC and NFPA Code Processes
• Summarize code development activities of other organizations
• Present a strategic plan for code activities over the next three years
• References to recent code change activity will be included
Proposal closing date
   - IBC - January 3, 2012
   - IFC – January 3, 2013
Several “special” activities ongoing
   - Elevator lobbies
   - Open stairways
   - Health care occupancies
Proposal Period and Comment Period have closed other than the Technical Correlating Committee
   - Leakage rates for penetrations of smoke barriers
   - Limitations on use of wetted glass as fire barriers
Technical Correlating Committee met in early January
Final NFPA membership vote – June, 2011
• ICC Code Technology Committee (CTC)
  ▪ Appointed to one year term effective 1/1/11
  ▪ Study Groups
    o Care Facilities
    o Elevator Lobbies
    o Unenclosed Exits
    o Balanced Fire Protection
      ❖ Vertical Openings
      ❖ Roof Vents
    o NIST
ACTIVITIES OF OTHERS

• ICC/ASHE Ad Hoc Committee on Health Care
  ▪ Smoke compartments
  ▪ Elevator lobbies
• ICC Code Action Committees
To defend, and if possible increase, the size of the US firestop market, and to increase the percent of that market that falls to firestop specialty contractors for installation
OBJECTIVE 1

• Retain (defend) current building code requirements for compartmentation

• Means and Methods
  ▪ Work with allied industries and companies to collectively resist the many anti-compartmentation code change proposals constantly submitted and advocated by the real estate industry interests as well as by code officials with a bias against compartmentation.
OBJECTIVE 2

• Re-introduce compartmentation concepts lost in previous cycles and/or introduce new compartmentation concepts based upon infectious control, sound attenuation, smoke, and water migration.

• Means and Methods
  ▪ Work with allied industries and organizations to identify potential ways to bring back compartmentation concepts related to occupancy separation, egress, and ingress etc. Develop creative means for introducing new compartmentation opportunities by identifying needs and challenges relating to infectious control, sound proofing associated with privacy, smoke, odor and water control to limit building owner liability.
OBJECTIVE 3

• Change the building codes to require qualified contractors

• Means and Methods
  ▪ Lobby allied industries, fire marshals, code officials and building owners to communicate the value of securing qualified contractors for life safety installations.
OBJECTIVE 4

• Encourage market forces to move the firestop market towards qualified contractors through increased inspection requirements in the building codes

• Means and Methods
  ▪ Get code changes to require 3rd party inspection in more situations
  ▪ Have code offer a trade-off wherein 3rd party inspection not required when qualified contractor is used.
OBJECTIVE 5

• Ensure that all code requirements for firestopping are clear and enforceable

• Means and methods
  - Work with other concerned individuals and organizations (e.g. IFC, UL, concerned code officials) to propose code changes “for the good of the code”. Identify where clarification needs to be made and where changes should be made.
OBJECTIVE 6

• To increase enforcement as well as compliance, ensure that code requirements for firestopping are practical

• Means and methods
  - Work with (or if needed, against) allied industry partners to modify the code to make all firestop requirements practical and believable
OBJECTIVE 7

• Communicate code related education, accreditation, marketing and standards proposals to the appropriate FCIA committee to solicit reciprocal commitment.

• Means and Methods
  ▪ Develop ideas generated during code committee discussions that support and/or create a successful environment for existing or new code proposals.
STRATEGIES

• Education
  ▪ Design professionals
  ▪ Code officials
  ▪ Contractors
• Code and standard development
• Master specifications
• Contractor qualifications
• Improve code enforcement activities
• Alliances
• Seminars/webinars
• Articles
• Presentations
  ▪ ICC/NFPA meeting presentations
  ▪ ICC Chapter meetings
  ▪ Allied professional meetings (AIA, SFPE)
• FCIA resource documents
  ▪ Print media
  ▪ Website
CODE DEVELOPMENT

• Form strategic alliances
  ▪ IFC and FCIA have been actively working together the past few years
  ▪ Reach out to others – NAHB, BOMA, GSA
• Proposals/Comments
• “Lobby” support
• Testify at hearings
• Guide specifications
  ▪ CSI/CSC MasterFormat
  ▪ Federal Government agency specifications
• Increase the number of contractors participating in FM and UL programs
• Education
• Proper document – plan preparation
• Special inspections
• Provide the design community with the tools and skills to properly address through penetration and fire-resistant joint systems in construction documents
  ▪ Model specifications
  ▪ Education of code requirements
    o Establish FCIA as the “go to” resource for education programs
  ▪ Clear, concise code language
• **714.1 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 it is installed.
CLEAR, CONCISE CODE LANGUAGE
• JOINT. The linear opening in or between adjacent fire-resistance-rated assemblies that is designed to allow independent movement of the building in any plane caused by thermal, seismic, wind or any other loading.
• Develop a methodology by which interested parties (contractors, code officials, design professionals) can identify problems with existing code text
• Upon review by the FCIA Code Committee, prepare code proposals for problems identified to FCIA
• Need not be (and should not be) limited to fire stop systems and joint systems
• FCIA should continue to submit proposals to improve the clarity of existing code provisions
IMPROVE THE QUALITY/RELIABILITY BY PROPER INSTALLATION

• Enforcement will be addressed under a separate item
• Provide qualifications for contractors who install fire stop and fire-resistant joint systems
  ▪ Existing programs exist but too few contractors
  ▪ Model specifications – ongoing activity
  ▪ Educate design professionals, building owners/managers, and code officials
    o Availability, benefits, requirements
  ▪ Code mandates – it should be noted there has been little success in this area in the past
  ▪ Standards are starting to require qualifications (NFPA 13, 20, 72, etc)
  ▪ State requirements for licensure – where others have started
  ▪ Is contractor oversight required if “approved” contractor used?
IMPROVE THE QUALITY BY PROPER INSTALLATION

• State requirements for licensure
  ▪ Has FCIA grown to a point to establish chapters at the State level to address State issues?
    o AFAA, AFSA, NFSA, SFPE,........
  ▪ At present, economy will be a barrier
  ▪ Establish specific types of projects at the start
    o Dollar value
    o High-rise
    o Occupancy specific
• Include as a “approved contractor” requirement in an installation standard
  ▪ Past attempts to have fire stop systems included in NFPA 80 failed
    o Currently referenced in many codes
  ▪ NFPA 221 - *Standard for High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls*
    o Many of the same players as in the Code processes

▪ Barriers
  o Contractors
  o Traditional methods
  o Lack of demonstrated need
IMPROVE THE QUALITY/RELIABILITY INSTALLATION BY ENFORCEMENT

• Contractor qualifications addressed under a separate item
• Provide methodology that systems are properly installed
• Previously mentioned
  ▪ Education
  ▪ Proper documentation
  ▪ Special inspections
• Require special inspections for certain projects
  ▪ Importance of buildings
  ▪ High-rise buildings
• Who does special inspections?
  ▪ Door Hardware Institute program for fire door inspectors
  ▪ IAS AC 291
    o Specification requirement
    o Code change??
• Are special inspections required if “approved” contractor used?
6.11 Firestop Systems

6.11.1 Successful completion of the UL Firestop Designated Responsible Individual (DRI) Examination and a minimum of one year of experience in the on-site quality control of installed firestops, fire-resistive joint systems, and perimeter fire barriers; or

6.11.2 Successful completion of the FM Approvals Designated Responsible Individual (DRI) Firestop Examination and a minimum of one year of experience in the on-site quality control of installed firestops, fire-resistive joint systems, and perimeter fire barriers; or

6.11.3 Qualification as a Firestop Systems Inspector through training or certification by an agency which is accredited under ISO/IEC 17024, AC371, ASTM E 2659-09, or ANSI/NOCA 1100, and meet 6.11.1 or 6.11.2; or

6.11.4 P.E., R.A., or F.P.E. and a minimum of one year of experience in the on-site quality control of installed firestops, fire-resistive joint systems, and perimeter fire barriers, and meet 6.11.1 or 6.11.2.
• IFC Section 703.1 requires annual inspection of various fire protection features of a building
  ▪ Assist BOMA with compliance strategies for this code requirement
    o Education
    o Checklist for inspection
  ▪ Identifies the need for proper “marking” of fire stop and fire-resistant joint systems.
IMPROVE THE RELIABILITY BY PROPER MAINTENANCE
SPECIFIC TOPICS

• Engineering judgments – limit use to applications where a listed system does not exist

• Where are joint systems required?

• Air leakage requirements – L ratings
  ▪ Concept of resist passage of smoke

• Compartmentation as a viable fire protection feature in buildings
713.2.1 Alternative Methods: Where the configuration of a penetrating item or group of items is such that a listed penetration firestop system tested in accordance with ASTM E 814 or UL 1479 is determined to be non-existent and reconfiguration of the penetrations or fire resistance rated assembly is determined to be impractical or impossible, alternative methods for maintaining the integrity of the required fire–resistance rating of the assembly shall be permitted to be established using an engineering analysis based on a comparison of listed penetration firestop systems and prepared by a manufacturer’s technical representative of the systems specified or prepared by the laboratory that conducted the original test.
FREE WEBINAR

- NFPA Code Compliance for Health Care Facilities
- Sponsor: Koffel Associates
- Tuesday, November 29, 2011 12:30 PM - 2:00 PM EST
- Thursday, March 29, 2012 12:30 PM – 2:00 PM ET
- Join industry experts, William Koffel, P.E., FSFPE and Jennifer Frecker in a 90-minute webinar to review common compliance issues cited by TJC and CMS surveyors so that you will know how to avoid these citations. Also review helpful provisions in later editions of NFPA 101, including the 2012 Edition, that can be used to address common compliance issues involving larger suites, corridor clutter and other issues. Koffel Associates is actively involved in code compliance and are recognized experts in comprehensive Life Safety Code® consulting, surveying, analysis, and design for health care facilities.

- Since the webinar will focus on actual applications as compared to simply identifying the changes, participants will benefit from having an understanding of the major changes prior to the webinar. For further information on changes between the 2000 and 2012 Editions of NFPA 101, please download a file that can be obtained by typing or pasting the following URL into your web browser (www.koffel.com/compliance).

- The registration link is: https://www2.gotomeeting.com/register/790382050