Firestop Contractors International Association



1

FCIA Webinar Series

FCIA '22 WrapUp

Bill McHugh, Executive Director - FCIA Rich Walke, CTI, Consultant to the FCIA

FCIA – Firestop Contractors International Association



• Fire Exits??

Thanks FCIA Members!

- Firestop Contractors
- Manufacturers
- Consultants/Special Inspection Agencies
- Firestop Distributors, Reps, Friends
- JOIN FCIA TODAY !
- www.FCIA.org

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FCIA BOARD OF DIRECTORS LEADERSHIP OVER DECADES







FREE DOCUMENTS

PDF MOP – FREE - Designers, AHJ's 07-84-00 SPECIFICATION – FREE TO ALL Life Safety Digest – FREE TO ALL

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--FCIA BACK @ Work --







• '22 HYBRID Conferences & LIVE Symposiums

- •FCIA ECA @ Nashville May 18-20
- •FCIA ME @ Doha, Dubai June 19-25
- •FCIA CAN @ VANCOUVER Oct. 3-4
- •FCIA FIC @ Amelia Island, FL Nov. 2-4
- Webinars



- Code Development & Standards Discussions
- Committee Action, International Exchanges
- 2023 Plans Underway!





- NEW Education for Careers in Firestopping!!
 - FCIA's Firestop Certificate of Achievement
 - •4 Levels
 - Level 1 General Knowledge Certificate
 - Level 2 In Depth Materials & Systems Certificate
 - Level 3 SOON
 - Level 4 SOON
 - Career Path Education
 - More later....



FCIA – Firestop Contractors International Association

- FREE Life Safety Digest
- UL/ULC, FM 4991 Contractor Programs,
 DRI's
 - IAS AC 291 Inspection Agency Program
 - Responsible Individuals / Competence
- ASTM Inspection Standards ASTM E2174 & ASTM E2393
 - High Rise, Category III & IV, R>250 ('21), NFPA 1, NFPA 101 Appx. & in Specifications Worldwide
- Tools @ FCIA.org for Specifiers, AHJ's, Building Owners, Firestop Contractors & Inspection Agencies
- Watch FCIA.org for Webinar Announcements!

ety Digest



Who is FCIA?

- 1997-98 Steering Committee Meetings
 - •Questions asked...
 - •Why isn't there a way for contractors to differentiate?
 - •Why isn't there inspection?
 - •Why isn't there a industry knowledge document?
 - •What can FCIA do at Code Development Org's?
 - •Resulted in

FCIA 1998 Mission

FOR MEMBER ONGANIZATIONS TO BE RECOGNIZED THROUGHOUT THE CONSTRUCTION INDUSTRY AS PREFERRED CONTRACTORS OF LIFE SAFETY FIRESTOP SYSTEMS. FLIA MEMBER CONTRACTORS ARE COMMITTED TO PROVIDING CONSISTENT, HIGH QUALITY FIRESTOP Systems As A CRITICAL PART OF EFFECTIVE COMPARTMENTATION ORIGINAL: 04/98 REVISED : 01/05

1998-2005-2014 Mission

- The FCIA's mission is for member organizations to be recognized throughout the construction industry as preferred quality contractors of life safety firestop systems.
- FCIA Member Contractors are committed to providing consistent, high quality firestop systems as a critical part of Effective Compartmentation. Through active participation in the FCIA and related forums, members contribute to the advancement of the firestop and compartmentation industry and maintain exceptional knowledge of this specialized service.
- Through this professional commitment to fire and life safety, member contractors bring considerable value to their customers by enhancing public safety and property protection.

Who is FCIA? When did it start?

- Trade Association
 - •1999 First Meeting UL Northbrook, IL



Who is FCIA?

- 1999 First Conference UL Northbrook, IL
 - •Same Questions asked...
 - •Why isn't there a way for contractors to differentiate?
 - •Why isn't there inspection?
 - •Why isn't there a industry knowledge document?
 - •What can FCIA do at Code Development Org's?
 - •Resulted in



Who is FCIA?

- 1999 DIIM Industry Strategy Accepted
 - •Four Committees formed
 - •Accreditation Create FM, UL/ULC Programs
 - •Technical MOP Build Body of Knowledge
 - Liaison Marketing Get Connected
 - •Code Get active!



FCIA Focus - MEMBERS

- Design
 - Systems & Manufacturers Instructions
- Installation
 - FM 4991 & UL QFCP
 - UL MACC Program
- Inspection ASTM E2174 & ASTM E2393
 - FM & UL Firestop Exams
 - FCIA MOP, FCIA FCAEP
 - High-Rise, Cat. III, IV 1603.5 & R > 250 Occupants
- Maintain Protection
 - Inventory
 - Visually Inspect & Compare to Listings

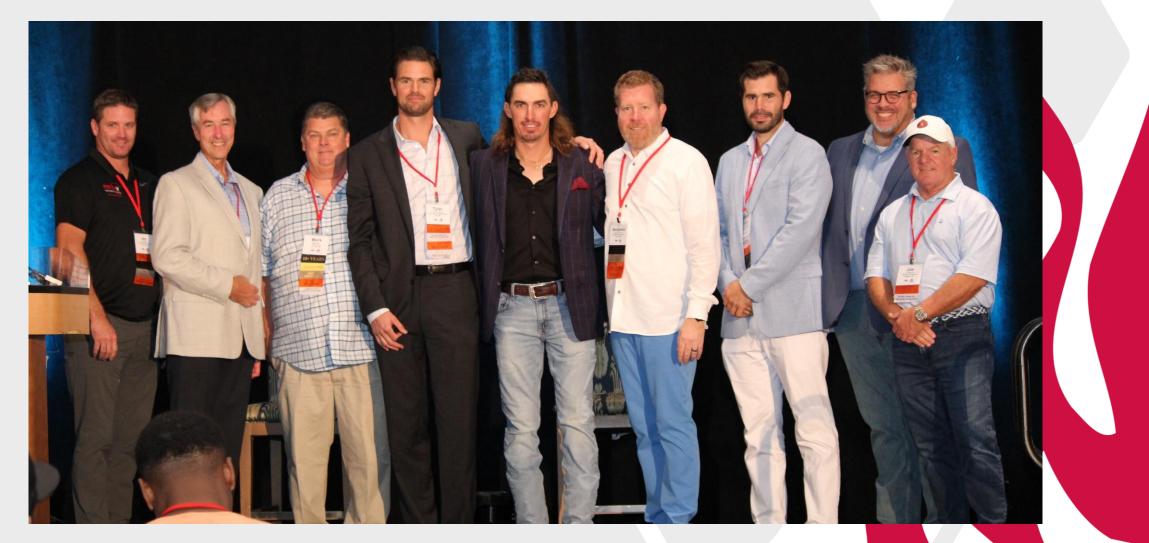
Systems & Materials....





FCIA '22/'23 BOARD OF DIRECTORS

LEADERSHIP



BoD CREATES FCIA's STORY



- Build Strategy
- Protect Fire & Life Safety in Buildings
 - Committee Actions
- Keep FCIA Financially Sound
 - Form Relationships
 - Gain Technical Knowledge
 - Much more...
 - Annual Elections





FCIA Membership Growth

- 1998 7 Members
- 1999 40 Members
- 2000 71 Members
- 2008 215 Members
- 2018 355 Members
- 2019 367 Members
- 2020 344 Members
- 2021 368 Members
- 2022 375+ Members





FCIA Healthy, Advancing Goals

FCIA Board of Directors & FCIA Committees

- Accreditation
- Code
- Canada
- Standards
- Inspection
- International Task Group
- Legislative
- Marketing/Liaison Membership
- Middle East
- Program
- Technical/Education/Apprenticeship







FCIA Accreditation Committee

- Accreditation Program Growth
 - Over 200 companies, worldwide footprint
 - FCIA & FM Leadership Meetings
 - FCIA & UL Leadership Meetings
 - UL MACC Certificate











FCIA Marketing Committee

- Present, Represent, Relationships
- NFPA
- ICC
- ASHE, AIA
- IFMA
- NASFM
- Ontario Building Officials,
 - Niagara Chapter
- NY State Code Officials
- FCIA Life Safety Digest
- CSI/CSC
- Barrier Management Symposium
- More....



Firestop Contractors International Association

FCIA Education Committee

FCIA FIRESTOP CERTIFICATE OF ACHIEVEMENT

- FCAEP Education Content Self Driven Education
- FCIA Certificate Level I
 - 5:40 hours = Education & Quizzes
 - 5 20-30 Minute Recordings, 4 Quizzes, 1 Exam
 - UPGRADE DONE
- FCIA Certificate Level II
 - 16 hours Education
 - 8 hours Exams
 - 24 Sessions, 24 Exams
 - UPGRADE UNDERWAY
- https://www.fcia.org/FCIA-Certificate-Program



Why FCIA's FCAEP Certificate of Achievement ??

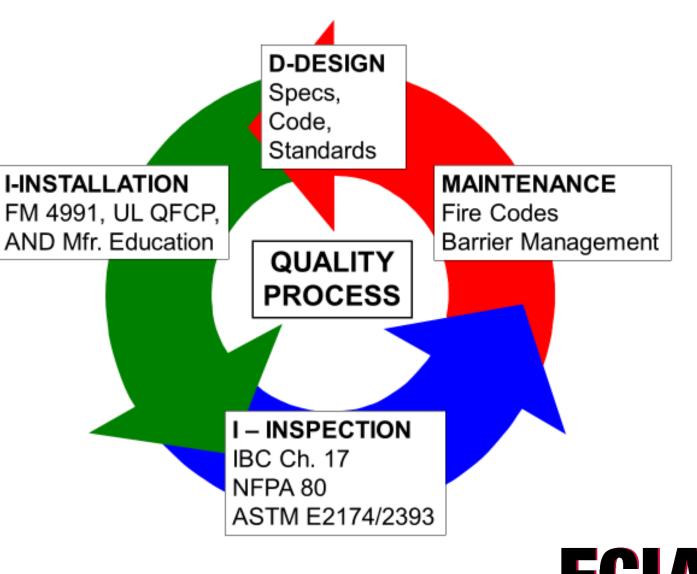
- Grow Company Talent Competitive Advantage
- Supports FM 4991/UL QFCP Programs
- Generic, World Class Education Content
- FCIA CERTIFICATE ADDS VALUE
- Self Guided Program NO INSTRUCTOR NEEDED
- Systems, Materials & Manufacturers Instructions







FCIA DIIM & FCAEP



Firestop Contractors International Association



FCIA Standards Committee

- ASTM E2174, ASTM E2393 Inspection Stds.
 - ASTM Inspection in 2012 -2024 IBC, NFPA 1
 - Appendix describes FM & UL Programs
 - IAS AC 291 Accreditation
 - FM & UL Firestop Exams
 - Inspection Committee Refining…
 - UL/ULC Standards Technical Panel
- **ASTM** Shrinkage, Exposure, Movement, Fire...





FCIA International Growth

- International Task Group
- Dubai, Doha, South America, MX











FCIA International Growth

FCIA International Presence Growing

- Canada, Mexico/LATAM, India, UK, AUS, NZ
- Life Safety Digest
- FCIA Firestop Manual of Practice
- FCIA Webinars
- FCIA Symposiums USA, Middle East, CAN
 - FCIA Barrier Management Symposiums
- FCIA Website
- FCIA Conferences
- FCIA @ Trade Shows....







FCIA Canada Committee

- NBCC 2020, 2025
- NSBOA, OBOA
- CHES
- CSC
- RAIC
- Symposium Vancouver, BC
- More in '23...









FCIA Technical Committee

• FCIA Firestop MOP

- DRAFTS 1999 2000
- 1st Edition Sept. 2000
- 2nd Edition 2001
- **3**rd Edition 2005
- 4th Edition 2008
- 5th Edition 2014 & 2015
 - Ch. 3 50 to 525 pgs. Spring 2014
- 6th Edition 2018 Inspection Chapter
- 7th Edition 2021 International Standards



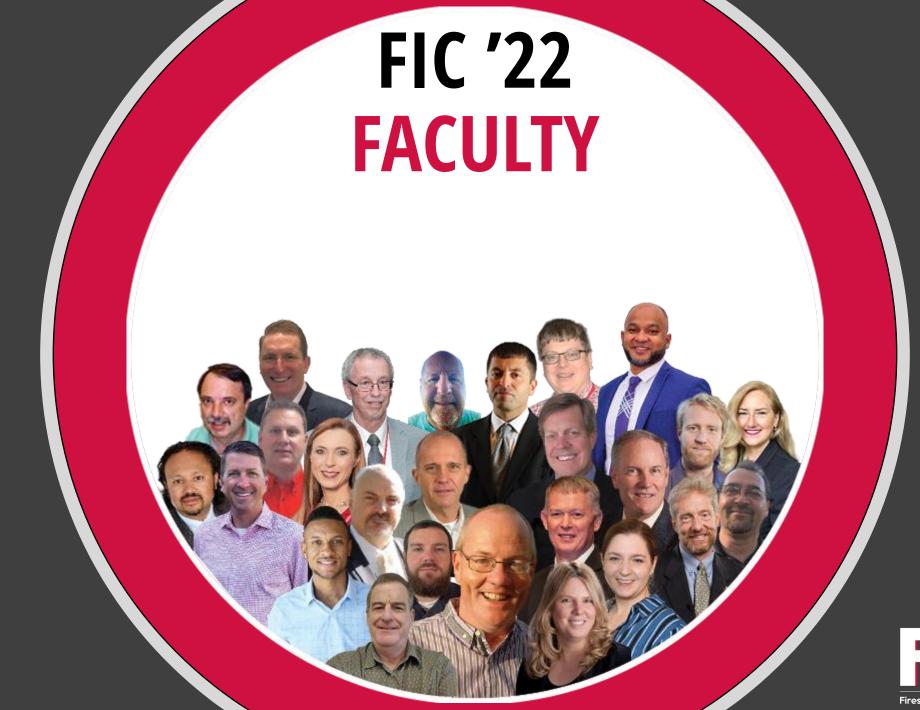


FCIA ECA '22 FACULTY

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SN7









FCIA Program Committee

- Amazing work...
 - Conference Agenda
 - Conference Locations





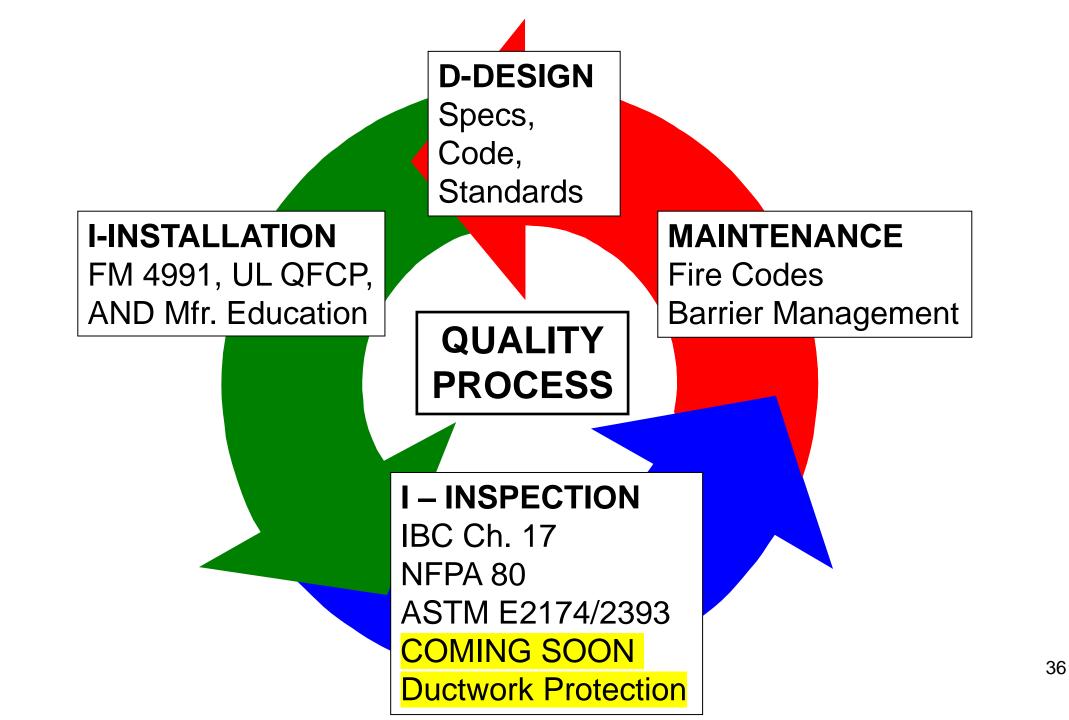


FCIA Code Committee

- NFPA 101 Fire Protection Features Comm.
- NFPA 1 "Quality Control Program" Ch.12
- NFPA 101 "Inspection, Firestop Contractors @ Annex", without saying FM&UL.
 - IBC, IFC, IEBC,
- IAPMO
- More....







ICC Code Development Cycle Group A Proposals ('21) IBC / IFC

Identification Devices

- FS58-21; FS61-21; FS69-21; FS71-21
- Proponent: FCIA
- Two approaches submitted
 - ASTM Standard
 - Criteria in Code
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Qualified Contractors

- FS59-21
- Proponent: FCIA
- Proposal required qualified contractors
 - High-rise buildings
 - Group I-2 occupancies
- Proposal focused on new buildings and additions
- Floor modification submitted to delete specific reference to UL and FM and replaced with NRTL
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Installation of Sleeves

- FS60-21
- Proponent: FCIA
- Installed in accordance with manufacturer's instructions and listing criteria
- Where sleeves are not listed, shall be securely fastened
- Committee Recommendation: Approval
 - Public Comment needed to further revise
- Final Action: Approval as Modified by Public Comment

Joints - Installation

- FS70-21
- Proponent: FCIA
- Listed systems
 - Securely installed
 - In accordance with manufacturer's instructions and listing criteria
- Approved materials
 - Securely installed
 - In accordance with manufacturer's instructions
- Committee Recommendation: Approval
- Final Action: Approval

Penetrations In Exterior Walls

- FS23-21; FS24-21
- Proponents: International Firestop Council; Code Official -Phoenix
- Proposed penetrations into or through rated exterior walls require protection unless exterior wall is permitted to have unprotected openings
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Joint Systems Bounding Fire Barriers

- FS43-21
- Proponent: Rich Walke through Fire Code Action Committee
 - Expanded language to require joints between fire barriers and other rated walls be protected in accordance with Section 715
 - Previous language only required protection between fire barrier and rated exterior wall assemblies
 - Section 715 requires joints be protected with a fire-resistant joint system
- Committee Recommendation: Approval
- Final Action: Approval

Continuity Head-of-Wall Systems

- FS44-21
- Proponent: Rich Walke
- Move requirements for protecting void at the intersection of a fire barrier and a non-rated *roof* assembly from Section 707.9 (Fire Barriers) to Section 715
- Committee Recommendation: Approval
- Final Action: Approval

Continuity Head-of-Wall Systems

- FS45-21
- Proponent: Rich Walke through Fire Code Action Committee
- Add paragraph to require joint system at the intersection of a fire barrier and a non-rated *roof* assembly
 - Approved material, OR
 - ASTM E2837 tested system
- Committee Recommendation: Approval
- Final Action: Approval

Corridor Walls in Group I-2

- FS49-21
- Proponent: ICC Healthcare Committee
- Allows corridor walls (smoke partitions) to terminate at lay-in acoustical tile with a weight of 1 lb/sq ft
- Committee Recommendation: Approval
- Final Action: Approval
- NOTE: Same as in NPFA 101 already.

Penetrations through Occupiable Roofs

- FS54-21
- Proponent: Code Official Phoenix, AZ
- Openings and penetrations through rated roof assemblies shall be protected where they occur directly below an occupiable roof
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Parking Garages

- FS64-21
- Proponent: Colorado Chapter of ICC
- Adds an exception that penetrations of concrete floors/ramps need not be protected in parking areas
- Committee Recommendation: Approval
- Final Action: Approval

T-Ratings

- FS66-21
- Proponent: IFC through Fire Code Action Committee
- Noncombustible penetrations ≤ 6 in. diam in an opening ≤ 144 sq in. through a single concrete floor with a listed system need not have a T-rating
- Committee Recommendation: Approval
- Final Action: Approval

Perimeter Fire Containment Systems

- FS68-21
- Proponent: Rich Walke through Fire Code Action Committee
- Language clean-up relating to perimeter fire containment systems
- Committee Recommendation: Approval
- Final Action: Approval

Perimeter Fire Containment – Clarifies Exception

- FS74-21
- Proponent: North American Insulation Manufacturers
 Association
- Clarifies exception relating to perimeter fire containment where glass extends to finished floor to require a system which will prevent ignition of cotton waste in the horizontal orientation
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Perimeter Fire Containment Systems

- FS75-21
- Proponent: Colorado Chapter of ICC
- Perimeter fire containment systems not required:
 - Within dwelling units
 - Parking structures
 - Mezzanine floors
- Committee Recommendation: Approval
- Final Action: Approval

Protection Exterior Wall / Fire Barrier Void

- FS76-21
- Proponent: Rich Walke through Fire Code Action Committee
- Remove word "curtain" from requirements for protecting nonrated exterior wall / fire barrier intersections to be consistent with Section 708
- Committee Recommendation: Approval
- Final Action: Approval

Definition of High-Rise Building

- G12-21; G14-21; G15-21; G16-21
- Proponents: Building Code Action Committee; NFCA / Architect; Colorado Chapter of ICC; WABO
- Three approaches to definition:
 - G12-21 Defined height based on elevation of floor of highest enclosed story
 - G14-21 & G15-21 Defined height based on inclusion of walking surface of occupiable roof
 - G16-21 Defined height based on inclusion of walking surface of occupiable roof having an occupant load of 50 or more
- Committee Recommendation: Disapproval of G12-21, G14-21 & G16-21: Approval of G15-21
- Final Action: Same as Committee Recommendation

Definition of Occupiable Roofs

- G20-21, Parts I (IBC) and II (IFC)
- Proponents: Building Code Action Committee / Fire Code Action Committee
- Established a definition for Occupiable Roof and changed all references to Occupied Roof to Occupiable Roof
- Committee Recommendation: Approval
- Final Action: Approval

ICC Code Development Cycle Group B Proposals IEBC / IBC Structural / IRC / ADMIN for all I-codes 2022

ADMIN Section 104.11

- Multiple proposals resulting in a major rewrite of the section
 - ADM13-22 was the primarily basis for the change
- Clarification differences between
 - Listing
 - Evaluation reports
 - Alternative methods of compliance
- Alternative Compliance
 - Term "fire resistance" deleted and replaced with "fire safety"
- Committee Recommendation: Approval
- Final Action: Approval

ADMIN

- ADM53-22
- Proponent: Fire Safe North America (FSNA)
- FSNA submitted proposals to add "resilience" to all I-codes that address fire safety
- Disapproved
 - Lack of definition
 - Lack of requirements in codes to address resilience

Penetrations Through Townhouse Common Wall

- RB55-22
- Proponent: Code Official Washington
- Proposed new exception permitting mechanical and plumbing penetrations through townhouse common wall
 - Such penetrations are not currently prohibited
 - Such penetrations are required to be firestopped
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Leakage Through Duplex Separation Walls

- RB63-22
- Proponent: Jeff Shapiro
- Rewrote requirements for duplex dwelling unit separations
 - Introduces language that "separations shall be constructed in a manner that limits transfer of smoke, such as solid lumber, self-closing door openings, sealed penetrations and other approved methods that inhibits air flow."
- Committee Recommendation: Approval
- Final Action: Approval

New Occupiable Roof

- EB46-22
- Proponent: Code Official Colorado
 - Proposed where new occupiable roof is added, occupiable roof must comply with the IBC
 - Proposal enacted all the current IBC requirements including egress, accessibility and high-rise provisions if applicable regardless of occupant load
- Committee Recommendation: Approval
- Final Action: Approval

New Occupiable Roof

- EB84-22
- Proponent: Building Code Action Committee
 - Added definition of Occupiable Roof which includes a requirement for a means of egress
 - Added provision that any occupied floor or occupiable roof more than 75 ft above fire protection vehicle access shall be equipped with standpipe.
 - Did not require retrofitting all high-rise provisions where the addition of an occupiable roof results in a high-rise building
- Committee Recommendation: Approval
- Final Action: Approval

Performance Based Codes

- S134-22
- Proponent: Building Code Action Committee
 - Proposed the use of ASCE7 for evaluation fire performance of structural elements
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Florida Building Commission

Joints Between Fire Barriers and Other Rated Walls

- F10461
- Proponent: FCIA
 - Proposal emulated FS43-21, approved at the ICC Group A code cycle
 - Expanded language to require joints between fire barriers and other rated walls be protected in accordance with Section 715
 - Previous language only required protection between fire barrier and rated horizontal assembly above and rated exterior wall assemblies
 - Section 715 requires joints be protected with a fire-resistant joint system
- Committee Recommendation: Approval
- Final Action: Approval

Use of Approved/Qualified Contractors

- F10518 & F10521
- Proponent: FCIA
 - Proposed use of approved/qualified contractors for installation of firestop systems and fire-resistant joint systems in I-2 occupancies (hospitals, nursing homes, etc.)
- Committee Recommendation: Disapproval
- Final Action: Disapproval

Special Inspections of Firestopping

- F10408
- Proponent: FCIA
 - Proposed special inspections on firestop systems and fire-resistant joint systems
- Committee Recommendation: Disapproval
- Final Action: Disapproval

FCIA Code List Code Compliance Issues 2027

List/Refine

- 1. Add language similar to Section 703.2.1.4 covering Supplemental features, into Sections 714 and 715 of IBC.
- 2. Add language similar to Section 304.1 of the IMC into either Chapter 1(?) or Chapter 7 of the IBC. We already have reference to installation instructions in Section 714 and 715, but should apply it across the board?
- 3. Correct Section 714.4 of IBC relating to L Ratings to state system shall comply with either of the requirements, not both.
- 4. Clarify whether Section 714.4 of IBC applies to membrane penetrations and to membrane penetrations of recessed fixtures.
- 5. Clarify that you can have a through-penetration through the townhouse common wall described in Section R302.2.2 of the IRC. When penetrated the penetrations shall be protected in accordance with Section R302.4. See RB55-22 for a bad example on how to word the proposal. Proposal was an exception allowing something that is not prohibited!
- Clarify conditions under which MEP items can be contained in the cavity of a townhouse double wall or common wall described in Sections R302.2.1 and R302.2.2 of the IRC, respectively. See RB57-22 for a bad example on how to word the proposal.

- 7. Add requirement to IBC to protect penetrations through an occupiable roof. See FS54-21 as an example of a disapproved proposal.
- 8. Clarify IBC on where joint systems are required. Perhaps model proposal off of Section 3.1.8.3(5) of the 2020 NBCC.
- 9. Clarify that "sealed penetrations" approved under RB63-22 of the IRC means an L rated firestop system. Clarify grammar of that section at the same time.
- 10. Clarify that "self-closing door openings" approved under RB63-22 of the IRC means leakage-rated doors. Also clarify "self-closing door openings" really means an "Opening protected with a self-closing door". This is not our issue so we may want to pass it off to others.
- 11. Remove allowance to protect water filled sprinkler pipes with annular space protection materials. See RB67-22 for an IRC proposal to do this which was disapproved. ASPM should never be used with combustible piping!!!
- 12. Add perimeter fire containment systems to Section 1705.18.2 of the IBC. Also update section references to Sections 715.3 and 715.4.

13. Add FM 4991, UL Qualified Firestop Contractor Programs to IBC.

a. If not in IBC, in what standard should we try this?

b. NFPA 80 or another NFPA standard?

14. Add requirement for 'quality control program' for firestopping to NFPA 101, like NFPA 1 has.

15. Add more definition to 'Inventory' in IFC and NFPA 1 fire codes:

a. Life Safety Drawings.

b. Tested and listed systems.

c. Manufacturers installation instructions.

16. Add requirement for documentation in NFPA 101, like we have 'inventory' in the fire code, NFPA 1.

17. Education occupancies – min 1 hour fire-resistance rating.

18. Require protection of vertical joints (voids) where fire-rated walls abut exterior walls.

19. Should we reduce inspection percentage if a FM/UL Contractor is used?

20. If we're adding penetration protection in occupiable roofs in the IBC (and maybe IEBC), do we add a separation distance for skylights or make them fire-resistance-rated?

21. Labelling – add requirement for firestop labels in IBC and NFPA 101/5000.

- 22. New 2024 IBC T Rating exception covers an opening no larger than 144 sq inches with no more than one single metallic pipe no larger than 6".
 - a. Consider expanding to allow for a sleeve or a cast in place device around the penetrating item. That could be the difference in us having to supply a T rating or not.
 - b. The sleeve itself may already be considered the penetrant that is falling into this exception. The concrete is tight around the sleeve and there is no firestopping required at the interface of the sleeve and the floor assembly. The metallic pipes that is 6" or smaller is currently able to be firestopped with no T rating if the hole is core drilled, but not sleeved.
 - c. If we ask for a sleeve we might as well include the cast in place device as well.
- 23. Additional T Rating Exceptions in the IBC:
 - a. Mech/Elec rooms with Fire Ratings equal to Floor Ratings.
 - b. Instead of the 714.5.1.2-3 reading "Metal Enclosed Electrical Switchgear Power box", code could it say "Metal Enclosed Electrical Box".
 - c. Rooms that are not regularly occupied (not sure if we can define that) and without combustibles can get language that allows for floor markings or signage indicating to keep the floor pen firestop system free and clear of other materials.

- d. Exclude T-Rating in an electrical room with no flammable material With signage at the door. This is being accepted by the City of Phoenix.
- e. Mechanical and electrical rooms with no combustible.
- 24. Expand on occupancies requiring Special Inspections in the IBC and NFPA 101/5000.

Keep the ideas coming!!!

FCIA & FIRESTOPPING – NORTH AMERICA & BEYOND

- Worldwide Relationships UK, NZ, IN, MENA, MX, EU
- Financially Sound Great Boards
- Strong Membership Retention & Committees
 - North America & International 88-91% Retention
- Code Successes Fire Resistance & Fire Safety
- FCIA @ ASTM Inspection, Movement, Exposure, etc.
- FCIA Focus "MEMBERS, DIIM, SYSTEMS & MII"
 - NEW & EXISTING BUILDINGS
 - 2018, 2021 Fire Code;
 - NFPA 1; NFPA 101,
 - India, Canada, UK, NZ....

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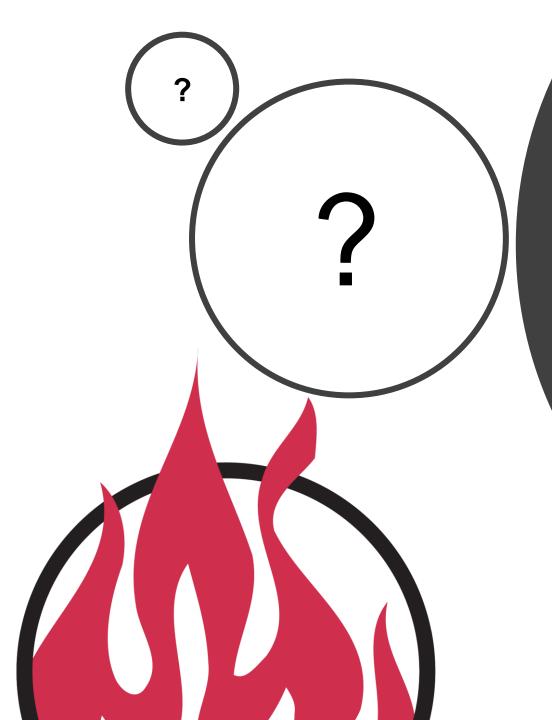


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Questions



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