

THE MAGAZINE OF EFFECTIVE COMPARTMENTATION

Life Safety

DIGEST

SPRING 2017

School Security and Safety CAN Coexist

Working Together for Life Safety

Education & the Firestop
Containment Worker

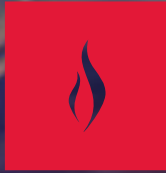
NFPA Statistics in Educational
Occupancies

Fire-Resistance-Rated Glazing
Makes the Grade



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LIFE SAFETY DIGEST

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This issue of *Life Safety Digest* is about educational occupancies. There are some great articles in this issue of *Life Safety Digest* that cover this important building occupancy that houses the future of our countries.

Over the past 30 years in the USA, grade 9-12 schools have moved trade education off campus. All that's left is math, science, language and arts and physical education in today's schools, with the (hopeful) end-result being a professional career of some kind.

Where did the wood, mechanical, plumbing or electrical shop go that used to be in the schools? It has been consolidated and moved to 'vocational schools'.

There has also been a strong push to make sure all kids get a college education, but is that right for everyone? What about those individuals who are both best suited for, and interested, in a career in the trades? With the construction economy expanding both in North America and Internationally, the question now becomes, "Where is the workforce going to come from"? This is especially true when the trades are not always viewed as a career path parents want their kids to follow, even though the work can be rewarding. The pay and benefits can be excellent as well.

The FCIA Technical Apprenticeship and Education Committees saw that there would be a big demand for workers soon. That's why they launched a Firestop Containment Worker Education Program that can be used as a curriculum to train those interested in this trade - Firestopping.

The challenge going forward is that in firestopping and fire-resistance-rated construction, we'll need to recruit, train and retain workers for the industry to be healthy. How will you do your part to make this happen? 🔥

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UNLIMITED?

Not when it comes to fire rated glass

Beware of advertisements urging designers to 'be unlimited' when using ceramics with 'fire ratings up to 3 hours.' The problem is that while ceramics are listed up to 3 hours, the IBC specifically limits is size and applications after 45 minutes. The code limits the use of ceramics to 100. sq. inches in 60/90/180 minute doors and ceramics cannot be used at all in 60/120 minute interior windows, sidelites and transoms regardless of whether sprinklers are employed or not.

For truly unlimited glazing, fire resistive products tested to ASTM E-119 like **SuperLite II^{XL}** must be used. **SuperLite II^{XL}** can be used up to the maximum size tested in all fire rated applications.

Here's a side by side comparison of fire protective vs. fire resistive glazing used in a 1-hour stairwell application:

Ceramics (Fire Protective)



Filmed or Laminated Ceramic in a 60 minute temperature rise door limited to 100 square inches

SuperLite II^{XL} (Fire Resistive)



SuperLite II-XL 60 in a 60 minute temperature door over 100 square inches. The sidelites and transoms also use SuperLite II-XL 60 in GPX Architectural Series Framing

For more information on USA-made, code-compliant fire rated glass and framing products, visit www.safti.com or call **888.653.3333**.



WORKING TOGETHER FOR LIFE SAFETY

To make a safe building, all systems must play their part. This includes fire resistance-rated construction (including effective compartmentation), detection/ alarm systems and sprinklers, as well as occupant education about emergency exits (egress systems). They all need to work together to protect people and property in buildings.

SAFE SYSTEMS

In particular, fire-resistance-rated construction – made possible through standards – is the “silent hero.” While alarms, sprinklers and exits are all highly visible to building occupants, the less visible, fire-resistance-rated and smoke-resistant parts of the building are just as important, including:

- Horizontal assemblies made from steel and concrete or combination wood-and-gypsum;
- Fire-resistance-rated structural steel columns, beams and horizontal assemblies;
- Wall assemblies made from concrete, concrete block or gypsum, fire-resistance-rated glazing assemblies;
- Firestopping
- Fire and Smoke Dampers
- Fire-resistance-rated doors

There are three methods to determine fire-resistance as allowed by most codes. Fire testing is very common and referenced in the building codes.

Construction materials are tested to test standard *ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials*. There is also a complimenting UL Standard that exists, *UL 263, Standard for Fire Tests of Building Construction and Materials*. When assemblies pass the testing in ASTM E 119 or UL 263, they have remarkable powers of fire-resistance, a critical factor in ensuring occupant safety and building integrity through safe passage areas and a building that stands for a period of time during fire exposure.

Another key fire test standard used for ensuring building safety is the Test Method for Surface Burning Characteristics of Building Materials (E84), also known as “the Steiner tunnel test.” The tunnel test “is used for everything under the sun” to assess the flame spread

and smoke developed characteristics of the materials used in buildings.

The ASTM E84 test standard is referenced in addition to firestopping standards in some cases where the products are exposed in certain areas, as required by code or specification.

FIRE TEST STANDARDS

ASTM standards and tests are used to support the claims of safety by the manufacturers of many materials.

In particular, firestopping tests, such as *ASTM E 814, Standard Test Method for Fire Tests of Penetration Firestop Systems*, use time and temperature to approximate a real fire. Key elements include:

- A fire endurance test resulting in “F” or “Fire Rating,” in which failure occurs if a breach allows the flame to reach the non-fire or unexposed side of the test sample;
- A temperature-rise test resulting in a “T-rating,” in which the non-fire or unexposed side of the assembly is tested to protect against fire spread *without* a breach occurring; and
- A hose stream test after fire exposure to simulate things falling during a fire and hitting a material or assembly, a shock test.

There are also optional ratings that a test sponsor may order with firestopping testing at an independent laboratory:

- “L” - Air Leakage - An “L-rating” is an air leakage test that simulates smoke movement through a firestop system. This option is only available when using the UL-1479 and UL-2079 Test Standards. A quantified “L-Rating” has been required for smoke barriers in the International Building Code for quite some time. This means that someone on the construction site installs firestopping not to exceed the ≤ 50 cfm/sf per 100 sf of wall area or ≤ 5 cfm/sf of opening area. That takes a company that understands the very specific details of firestopping as an installation firm.

FCIA recommends that anytime a requirement exists for smoke resistance of any kind to protect penetrations and joints, the “L-Rated” firestop system should be used. Why? Because the “L-Rated” firestop is the closest tested solution that exists. The walls in

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See the standard at [3M.com/Firestop](https://www.3m.com/Firestop).



most commercial, institutional, industrial, business and mercantile occupancies are made of 5/8" gypsum wallboard, with stud spacing and anchoring similar to a fire-resistance-rated assembly. The assemblies even look the same - fire-resistance-rated or not.

Firestopping is an exact science. There is no "making things up", "this should work" or "getting creative" inventions in the field in fire-resistance-rated and smoke-resistant assemblies. Insist on "L-Rated" firestopping in smoke partitions and smoke barriers to prove smoke resistance.

In firestopping, the material to labor costs are high on labor and not as much on materials. Therefore, the incremental cost of using a firestop system in a non-fire-resistance-rated wall or floor that invokes smoke-resistance is small in the overall cost of construction.

- The "W-rating" measures the firestop system's ability to resist a 3' head of water ponded over the firestop. No leakage for 72 hours means a "W-rating" can be established. This option is only available using UL-1479 standard.

THE ASTM STANDARDS USED FOR WHAT IS KNOWN AS FIRESTOPPING INCLUDE:

ASTM E 814, *Test Method for Fire Tests of Penetration Firestop Systems*, covers both membrane and through penetrations. Membrane penetrations are when a penetrating item (pipe, duct, cable, etc.) is inserted into one side of a breach then turns inside the wall assembly and exits elsewhere. There are tested and listed firestop systems that are specially designed to handle this membrane penetration application. One side of a through penetration firestop is not necessarily the same as a tested membrane firestop system.

The Through-Penetration is when a penetrating item passes through both sides of the fire-resistance-rated assembly. Firestopping is applied then to both sides of the wall or one side of the wall.

The complimenting UL Standard to *ASTM E-814* is *UL 1479, Standard for Fire Tests of Penetration Firestops*. In Canada, the *ULC-S115, Standard Method of Fire Tests of Firestop Systems*, incorporates both the penetration and joint firestopping standards, and also includes the "L" and "W" ratings as an option.

ASTM E 1966, *Test Method for Fire-Resistive Joint Systems (E 1966)*, is a standard that provides data regarding the breach between two adjacent assemblies. Breaches are made for a variety of reasons from movement due to seismic activity, isolation of differential non-compatible materials, wind and thermal movement.

Firestopping is used for protecting these breaches when installed to the listings from ASTM E 1966. The complimenting UL Standard is *UL 2079, Standard for Tests for Fire Resistance of Building Joint Systems*.

As with penetrations, Canada has incorporated UL 2079 into the ULC-S115 Standard.

ASTM E 2307, *Standard Test Method for Determining Fire Resistance of Perimeter Fire Barriers Using Intermediate-Scale, Multi-story Test Apparatus*, is the test standard used for when a breach exists between the exterior skin of the building and the horizontal assembly. Commonly known as perimeter fire containment, this test method addresses the interior spread of fire at the building's outside horizontal assembly (floor/ceiling) and wall edge. The interior 'safing slot' is protected horizontally, as well as vertically with mineral wool, as shown in the tested and listed systems from the laboratory directories.

ASTM E 2837, *Standard Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems Installed Between Rated Wall Assemblies and Nonrated Horizontal Assemblies*, was developed to provide a tested and listed system to extend the fire-resistance-rating of a wall to the non-rated horizontal assembly - the roof. The concept of the test standard is similar to the ASTM E 2307 perimeter fire containment standard where the curtain wall is a non-fire-resistance-rated assembly and the horizontal assembly is rated. The ASTM E 2837 is specifically designed for buildings with fire-resistance-rated walls that extend to a non-fire-resistance rated roof assembly.

Firestopping test standards are critical to determining the suitability for use of firestop products in specific fire-resistance-rated and smoke-resistant assemblies. The tested and listed systems are very detailed. Both the tested and listed system and the manufacturers installation instructions need to be followed exactly to obtain the rating and protection needed.

FIRESTOP CONTRACTOR QUALIFICATIONS

Because of such complexity, a firestop contractor who specializes in firestop work understands the systems documentation required at all levels of the company is needed.

To prepare contractor companies for the task of installing firestopping to the tested and listed system and manufacturers installation instructions, FCIA's Accreditation Committee worked with FM Approvals to develop *FM 4991, the Standard for the Approval of Firestop Contractors*, introduced in 2000 and with UL to develop the *UL Qualified Firestop Contractor Program*, introduced in 2006. Both of these management system based programs quantify the qualifications of the firestop contractor company.

In addition to understanding the documentation required for firestopping, the company needs to employ workers who are educated in firestopping's strict systems protocol.

FIRESTOP INSPECTION

In addition, ASTM standards in Firestopping are used in the field by Special Inspection Agencies who employ firestop inspectors.

Since the 2012 code, two of these standards are part of Chapter 17 (Special Inspections) of the International Building Code:

- ASTM E 2174, *Standard Practice for On-Site Inspection of Installed Firestops*
- ASTM E 2393, *Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers*

Firestop Special Inspection Agencies and Firestop Inspectors are required to have certain competencies, experience and be free from conflicts, as required by the International Building Code. The code requires an Approved Agency to perform inspections.

APPROVED AGENCY

An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been *approved*. [IBC 202. Definitions]

In section 1703 of the IBC, the agency must prove that they are "objective, competent, and independent from the contractor responsible for the work being inspected". [IBC 1703.1.2] The Special Inspection Agency also needs to have equipment that is maintained as well.

Individual inspectors need to also have qualifications. Per the International Building Code, section 1704.2.1, special inspectors must "demonstrate competence and relevant experience or training". And, the experience is considered relevant when it is related in complexity.

The FCIA's Standards Committee worked with manufacturers and consultants, contractors and ASTM Staff to build the ASTM E2174 and E2393 Standards. FCIA's Bill McHugh currently chairs the ASTM Inspection Standards.

The key point to remember with the inspection standards and firestopping is that the cost of inspection is directly related to the experience and competency of the firestop contractor. The ASTM E2174 and E2393 Standards also state that the inspector is not to supervise the firestop work.

The firestop contractor choice by the General Contractor or Building Owner or Manager makes a huge difference in inspection costs. Since firestop inspection agencies are hired by the building owner (code and specs require this) and firestop contractor by the General Contractor, there can sometimes be issues between the inspection and contracting groups.

Firestop installations by those who do not understand that they must follow the listings and manufacturers installation instructions for firestopping have largely gone unchecked. As special inspection agencies start to find the deviations to listed systems, rejections will start. That's why it's important that the individuals

and companies installing firestopping are firestop contractors - FCIA Member, FM 4991 Approved, UL-ULC Qualified Firestop Contractors - who understand how the listings work and the detail required to work with firestop.

When a well-trained firestop contractor with a trained workforce - to the FCIA Firestop Containment Worker Program - is used in conjunction with special inspection to the ASTM E2174 and ASTM E2393 firestop inspection standards by inspection agencies who employ inspectors and who all have knowledge about the tested and listed systems, as well as the manufacturers installation instructions, safe buildings - and the best value for all involved - is the result. 🔥

Eric Keeton, Dalton Protection, Inc., can be reached at ekeeton@daltonprotection.com. Tracy Smith is Vice-President at Firestop Southwest, Inc. Tracy can be reached at tracys@firestopswsouthwest.com. Eric is Chair and Tracy Vice Chair at the FCIA Standards Committee. Both are Past Presidents and currently serve on the FCIA Board of Directors.

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EDUCATION & THE FIRESTOP CONTAINMENT WORKER

To meet the needs of the contractors who require a trained workforce, FCIA's Technical, Education and Apprenticeship Committee created a "Firestop Containment Worker Education Program" for development of firestop containment workers.

The Firestop Containment Worker Education curriculum consists of the 800+ page Firestop Containment Worker Manual as a basis for the education. The textbook has test standards, systems selection and analysis and 22 chapters of generic material descriptions.

In addition to the text book, the complete program has 22 instruction guides, 22 PowerPoint presentations that follow the 22 chapters in the text book and 22 chapter quizzes. The quizzes are meant to help the learning process for the Firestop Containment Worker.

The video includes examples of firestopping installation in new construction environments and existing buildings including healthcare occupancies. This program focuses on the generic material groups, the manufacturers installation instructions and tested and listed systems.

The FCIA Firestop Containment Worker Education Program is not mandated by any code or regulation. FCIA Members have used the Firestop Containment Worker Education Program successfully to educate their workforce - both field and office - on the detailed nature of firestopping. Firestopping is not easy. The systems complexity demand a skilled worker to get the systems and material application right the first time.

The complete program, as implemented by a contractor company for their workforce fits nicely into a 4 year apprenticeship process to become a journeyman Firestop Containment Worker. One organization, the Firestop/Containment Worker Local 1, in Vancouver, WA, has been using the program for the past 3 years to educate workers for the contractors in the area.



Specialty Firestop, Inc. photo

To add a visible element to the program, 2.5 hours of hands on video were filmed by a Firestop Containment Worker who also was trained at a leading film studio. The videos were filmed on actual jobsites providing real world looking educational material.



Specialty Firestop, Inc. photo

"The program has been a great package for our apprenticeship training coordinator to work with. It's just what the industry needs to meet the demands of a growing industry," states Bob Hasting, Specialty Firestop Systems, Inc., Vancouver, WA, Chair of the FCIA Technical, Education and Apprenticeship Committee where the document was produced.

"In Canada, the Firestop Containment Worker Education Program works well to educate new people coming into the industry, as well as existing journeyperson workers," stated Ken Slama, National Firestop, LTD., Winnipeg, MB, Vice Chair of the Committee.

Want to learn why contractors have been using the FCIA Firestop Containment Worker Education Program to train their workforces? Check out FCIA's March Webinar on the apprenticeship education program in the USA, Canada and the Middle East. Visit www.FCIA.org for more info. 🔥



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NFPA STATISTICS IN EDUCATIONAL OCCUPANCIES

US fire departments responded to an estimated average of 5,690 structure fires in educational properties in 2007-2011, annually. These fires caused annual averages of 85 civilian fire injuries and \$92 million in direct property damage. An average of one death occurred in daycare properties.

The majority of fires and losses in educational properties were in nursery through high schools.

STRUCTURE FIRES IN EDUCATIONAL PROPERTIES, BY OCCUPANCY TYPE 2007-2011 ANNUAL AVERAGES

In 2007-2011 36% of structure fires in educational properties occurred in structures with automatic suppression systems present.

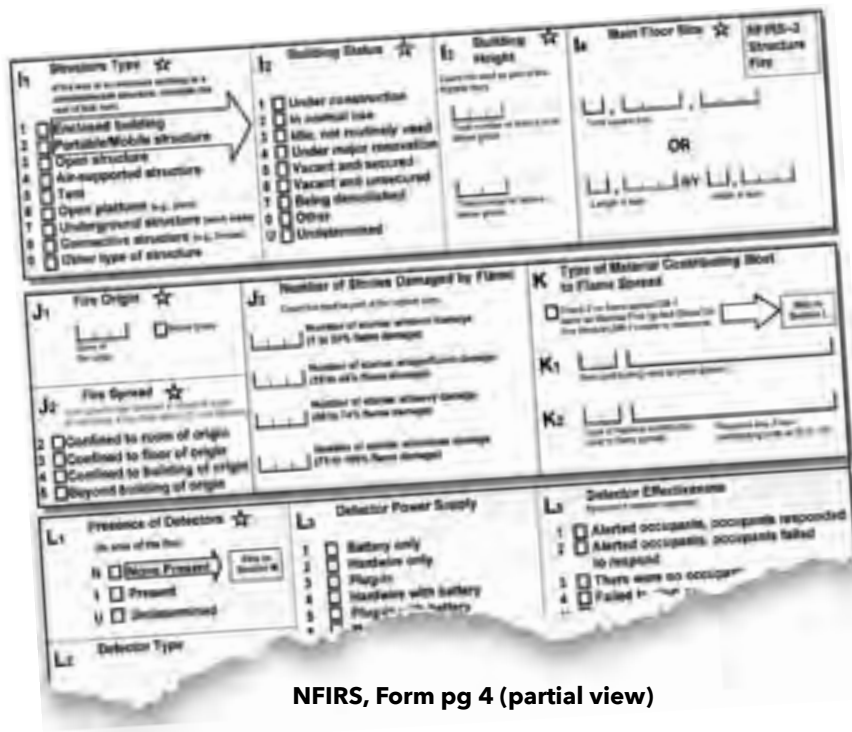
- During 2007-2011, where automatic suppression equipment was present and known, 89% of systems in structure fires in these properties were sprinklers.
- 87% of systems operated when the fire was large enough to activate them.
- In educational properties, direct property damage per reported fire was 62% lower when wet pipe sprinklers were present, compared to fires with no automatic extinguishing equipment present.

These estimates are derived from the U.S. Fire Administration National Fire Incident Reporting System (NFIRS) Version 5.0 and NFPA's annual fire department experience survey.

Educational property includes Preschool through high schools, adult education centers and day-care centers. Below is a list of Educational Property Structure Fires by Facility Type. The following estimates are annual averages for 2007-2011:

Day Care Centers	Preschool Grades 1 through 12	College Classroom Buildings and Adult Ed. Centers
<ul style="list-style-type: none"> • 580 structure fires • 1 civilian death • 8 civilian injuries • \$6 million in direct property damage <p>Leading Causes</p> <ul style="list-style-type: none"> • Cooking Equipment <p>Area of Origin</p> <ul style="list-style-type: none"> • Kitchen or cooking area • Bathroom <p>Item 1st Ignited</p> <ul style="list-style-type: none"> • Cooking materials including food <ul style="list-style-type: none"> • 91% of fires in these properties were confined to the room of origin <p>Peak Times</p> <ul style="list-style-type: none"> • Weekdays • 10am-1pm 	<ul style="list-style-type: none"> • 4,60 structure fires • 70 civilian injuries • \$70 million in direct property damage <p>Leading Causes</p> <ul style="list-style-type: none"> • Half were intentionally set • Cooking equipment • Playing with heat source <p>Area of Origin</p> <ul style="list-style-type: none"> • Lavatory • Kitchen or cooking area <p>Item 1st Ignited</p> <ul style="list-style-type: none"> • Trash or rubbish • Cooking materials including food • Magazine, newspapers or writing paper <ul style="list-style-type: none"> • 93% of fires in these properties were confined to the room of origin <p>Peak Times</p> <ul style="list-style-type: none"> • Weekdays • 8am-4pm 	<ul style="list-style-type: none"> • 700 structure fires • 4 civilian injuries • \$7 million in direct property damage <p>Leading Causes</p> <ul style="list-style-type: none"> • Cooking equipment • Intentional <p>Area of Origin</p> <ul style="list-style-type: none"> • Kitchen or cooking area • Lavatory or bathroom • Laboratory <p>Item 1st Ignited</p> <ul style="list-style-type: none"> • Cooking materials including food • Rubbish, trash or waste <ul style="list-style-type: none"> • 94% of fires in these properties were confined to the room of origin <p>Peak Times</p> <ul style="list-style-type: none"> • Weekdays • 10am-8pm

2013 REPRINTED FROM NFPA DOWNLOADS, Educational Fact Sheets. file:///C:/Users/Bill/Downloads/EducationalFactSheet%20(2).pdf NFPA, 1 Batterymarch Park, Quincy, MA 02169, www.nfpa.org. Fire Analysis & Research Division, osds@nfpa.org
Source: Structure Fires in Educational Properties, Richard Campbell, September 2013



NFIRS, Form pg 4 (partial view)

SIDEBAR-DO THE STATISTICS TELL THE STORY?

Sprinklers were reported to be present in educational properties and operated 87% of the time when the fire was large enough to operate them. Direct property damage was less than when no automatic sprinklers were present.

Do we know if there were other fire protection features present in these structures that helped minimize damage? Were there fire barriers, smoke barriers? Firestop systems? Fire Dampers? Fire Doors? Fire-Resistance-Rated Glazing?

FCIA believes that fire sprinklers, detection and alarm systems, fire drills and egress plans, along with effective fire resistance rated assemblies, results in safe buildings.

The report on the previous page by NFPA is very comprehensive and covers statistics from the National Fire Incident Reporting System, NFIRS.

NFIRS is a reporting standard that fire departments use to uniformly report on the full range of their activities, from fire to Emergency Medical Services (EMS) to equipment involved in the response. NFIRS is the world's largest, national annual database of fire incident information. The database comprises about 75 percent of all reported fires that occur annually.

The Forms are filled out post fire incident to gather data and report through the US Fire Administration's Federal Emergency Management Administration (FEMA) communication portals. <https://www.usfa.fema.gov/data/nfirs/>

In FCIA's view, there is a problem with NFIRS data when it comes to prevention of fire spread due to fire-resistance. To begin with, there is nowhere on the fire

incident reporting form to provide information about how fire-resistance-rated construction - effective compartmentation - helped contain fire or hold the building up during the fire until such time that the fire department extinguished the fire. There is also nothing about firestopping, fire doors, fire dampers, fire barriers, smoke barriers, fire-rated glazing or any other fire-resistance.

On page 4 of the NFIRS, Appendix A, Paper Forms for NFIRS 5.0 Modules, there is a place to mark if fire spread from the room, floor or building of origin. There is an area to mark if detectors were present, automatic extinguishing system, building type, material contributing most to flame spread, number of stories damaged by flame, fire origin, etc.

We applaud the fire service for their hard work during and after fire event operations. At FCIA, we do see that there is not a 'checkbox' for fire-resistance contribution to slowing or stopping fire spread from the room of origin. There is a space on the final page - page 16 - of the document for 'Remarks'.

Fire-resistance contributes to building safety and property protection just as detection and alarms, sprinklers and alarm systems do, so why shouldn't there be a place on the NFIRS Form to note that proper effective compartmentation and fire-resistance slowed fire spread and minimized injury and damage?

We applaud the fire service and building professionals who work to design and those who protect those who occupy the structures. FCIA hopes that at some point the tools needed to capture the value of fire-resistance-rated construction features in buildings are implemented as part of the NFIRS data capture. 🔥



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SCHOOL SECURITY AND SAFETY CAN COEXIST



Allegion photo

In the wake of any tragedy, we are filled with an overwhelming desire to do something - anything - to prevent it from ever happening again. The Triangle Shirtwaist Factory fire and the fire at Our Lady of the Angels School were both catalysts for significant revisions to fire and life safety codes that have unquestionably saved lives and prevented an incalculable number of similar events.

But good intentions do not always result in good policies. In the wake of the tragedy at Sandy Hook Elementary School and subsequent school shootings, the urge to take action has been channeled into efforts to enhance the security of classroom doors. While added security is a positive step, some schools are being encouraged to use classroom barricade devices, many of which not only violate current model code requirements, but could also result in increased risk and liability.



The model codes require all locks and latches on an egress door to be released with one operation; doors which require multiple releasing operations can deter evacuation. Allegion photo.

CODE COMPLIANCE

Faced with the egress requirements of the existing model codes, proponents of classroom barricade devices began pushing for changes to the codes, specifically the requirements mandating free and unobstructed egress. Although classroom barricade advocates have cited the reduction in school fires over the last 50 years as evidence that the current codes are unnecessarily stringent and outdated, code experts credit these codes for the increase in school safety and the decrease in fire-related fatalities.



The 2018 model code language prohibits modifications to panic hardware, fire door hardware, and door closers. Hardware used on fire doors must be listed for that purpose. Allegion photo

BATTLING THE BARRICADE

By definition, “barricade” means “to block (something) so people or things cannot enter or leave¹.” Most building codes and fire codes require doors in a means of egress to provide free egress at all times, which allows building occupants to evacuate quickly if necessary. But there is a growing number of retrofit security devices on the market designed to lock down a classroom door during an active shooter event. They are touted as being both effective and inexpensive - a very appealing combination to cash-strapped school districts that are under pressure from parents to enhance classroom security.

Overlooked in the rush to “do something” is the fact that when installed on a classroom door along with existing latching hardware, the majority of these barricade devices do not meet the model code requirements. In most U.S. states, the model codes that have been adopted include the International Building Code (IBC), the International Fire Code (IFC) and NFPA 101 - The Life Safety Code. These codes require doors in a means of egress to be unlatched with one operation, with no tight grasping, pinching, or twisting of the wrist, and without the use of a key, tool, special knowledge or effort. Products used on fire doors must be tested and listed for use as part of a fire door assembly.

Proponents of barricade devices suggest that, because the device is intended for use only when an active shooter is in the building, securing the door takes priority over allowing safe evacuation. But others point out that there is no guarantee the device will only be installed under these limited circumstances, and the devices could easily be misused, preventing authorized access by staff and emergency responders, as well as delaying or preventing egress.

Caught in the middle of this debate were code officials who struggled to ensure that life safety was not compromised in the rush to enhance classroom security. In a few states, fire marshals or state legislators eventually approved the use of some types of classroom barricade devices, if certain criteria were met. Other states issued bulletins clarifying that security devices that did not meet the model codes were not allowed. The majority of states did not make an official statement either way, relying on their existing state code requirements to ensure that locking devices used on classroom doors allowed free egress, were listed for use on fire doors (where required), and met the accessibility standards.

As often happens, this mixed approach resulted in inconsistencies from one state to the next, and even greater variations between school districts where conditional use of retrofit security devices was allowed. First responders could arrive on-scene without knowing what to expect and without the tools needed to access rooms equipped with classroom barricade devices. In addition to affecting evacuation, this can also impact a situation where an unauthorized person has barricaded the door with hostages inside, and there is no means of authorized access to the room.

In an attempt to create a safe, consistent set of code requirements for school security, the Builders Hardware Manufacturers Association (BHMA) Codes and Government Affairs Committee proposed a change to the IBC that reinforces and strengthens the

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current requirements. After moving through the code development process, with input from the International Code Council and numerous other stakeholders, the change was approved. Similar language was later approved for the IFC, and a corresponding change is currently in progress for NFPA 101 - The Life Safety Code.

The 2018 edition of the IBC will include the following section to address school security:

1010.1.4.4 Locking arrangements in educational occupancies. In Group E and Group B educational occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:

1. *The door shall be capable of being unlocked from outside the room with a key or other approved means.*

2. *The door shall be openable from within the room in accordance with Section 1010.1.9.*

3. *Modifications shall not be made to listed panic hardware, fire door hardware or door closers.*

1010.1.4.4.1 Remote operation of locks. Remote operation of locks complying with Section 1010.1.4.4 shall be permitted.

This language will apply to classrooms in K-12 schools, colleges, and universities, and also to offices and other occupied rooms. If these rooms are lockable, they must be able to be unlocked from the outside, and they must meet the requirements for egress - one operation to unlatch, no keys, tools, special knowledge or effort, and no tight grasping, pinching, or twisting, of the wrist. No modifications are permitted to any listed panic hardware, fire door hardware or door closers. Remote operation of the locks, restricting access but not egress, is acceptable if the locks meet the other requirements of this section.



When the new requirements are adopted, lockable doors in educational occupancies must be capable of being unlocked from the outside with a key or other means approved by the building official. Allegion photo

GOOD NEWS

Because these changes will still have to be adopted at the state and local level, it could be several years or even a decade for the new language to go into effect

throughout the United States. But there is hope that the process will move more quickly.

First, the bulk of this code language is already included in both the current and previous model codes. It would not normally be necessary to reiterate information that is stated in another section of the code, but having a separate section specific to classroom security underscores the importance of maintaining these existing requirements. The only new criteria for school security is that doors which are able to be locked must be able to be unlocked from the outside using a key or other approved means. It's important to note that "approved" means "acceptable to the building official."

Also, states may choose to adopt the new language ahead of adoption of the entire 2018 model code. This offers a consistent alternative to individual state code changes. This "pre-adoption" recently occurred in North Carolina, where the NC Building Code Council received a proposed change that would have allowed "emergency lockdown safety mechanisms" in schools and office buildings. Instead of approving this change, the Building Code Council chose to adopt the 2018 model code language addressing school security.

Meanwhile, for those school districts that are seeking to enhance classroom security, there are a number of code-compliant lock functions available, depending on existing conditions, the needs of the facility, and the budget. All lock functions that would typically be installed on a classroom door allow free egress as well as authorized access by staff and emergency responders, and will provide the necessary balance of life safety and security for teachers and students.

CONCLUSION

The instinctive reaction to the fear surrounding school shootings is to do everything possible to protect students and teachers from being in the line of fire. But the desire to react quickly and within budgetary restrictions sometimes leads to choices that may solve one problem but inadvertently create others. The requirements for free egress, fire protection, and accessibility must be considered in conjunction with the need for security.

When working to increase the security of an educational facility - or any type of building, an all-hazards approach should be taken, considering not just active shooters and terrorism, but also fire, severe weather, natural disasters, and other types of emergencies. Consulting with a qualified hardware consultant will ensure that life safety is not sacrificed in the rush to enhance a facility's security. 🔥

Lori Greene, AHC/CDC, CCPR, FDAI, FDHI is the Manager of Codes & Resources for Allegion. For more information about this topic and to download a free reference guide on codes, visit iDigHardware.com/guide.



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FIRE-RESISTANCE-RATED GLAZING MAKES THE GRADE IN EDUCATIONAL FACILITIES



In CNU Student Success Center, a fire-rated glass system improves light transfer while providing critical fire resistance. Virginia Hamrick and Glavé & Holmes Photo.

In CNU Student Success Center, a fire-rated glass system improves light transfer while providing critical fire resistance.

In Christopher Newport University's (CNU) new Student Success Center in Newport News, Virginia, nothing about the stunning 15-foot diameter circular glass floor system hints at its two-hour fire-resistance-rating and the associated capabilities.

The floor is configured with an outer and inner ring of fire-resistance-rated glass and framing, which are designed to emulate a mullioned window and offset a transparent inner "doughnut." The design fuses the university's contemporary and classical architectural themes, and creates an elegant viewing portal that

directs the eye up through the fourth floor to the building's crowning dome.

While the fire-resistance-rated glass floor assembly most notably marries aesthetics and fire- and life safety code requirements in CNU's Student Success Center, it is responsible for much more. The defining visual feature brings lighting down to the building's lower levels, supports loads up to 150 psf (732 kg/m²) and extends usable walking space on the fourth floor with its textured top-surface glass. It also incorporates switchable privacy glass to provide privacy during large events.

In today's educational facilities, multitasking fire-resistance-rated glazing assemblies, such as the one in the CNU Student Success Center, are being used more often in areas with stringent fire- and life safety requirements. Clear, sleek and high-performing, these fire-resistance-rated glazing assemblies make it possible for building teams to overcome the special design and fire- and life safety challenges present in schools and universities.

Here is a look at three notable ways fire-resistance-rated glazing assemblies advance the form and function of these important facilities.

IMPROVE LIGHT TRANSFER

Compartmentation, or the subdivision of spaces through the use of fire-resistance-rated assemblies, provides a crucial defense mechanism to protect people in many occupancies, including educational facilities.

Compartmentalized spaces help slow or stop the spread of fire. They serve as the ultimate hall monitor and protect against the spread of fire regardless of whether alarms and automatic sprinkler systems activate.

While fire-resistance-rated compartmentation plays a critical role in fire- and life safety protection plans, it can prove challenging to draw daylight into, or through, these subdivided spaces - or compartments.

Today's fire-resistance-rated glazing assemblies resolve the daylight challenge in educational facilities.

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The fire-resistance-rated glass and frames work In CNU Student Success Center, a fire-rated glass system improves light transfer while providing critical fire resistance. Virginia Hamrick and Glavé & Holmes Photo. together to create a barrier to radiant and conductive heat transfer. They pass the fire test for solid walls (ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials, and Underwriters Laboratories (UL) 263, Fire-resistance Ratings).

As a result, they are suitable where building codes require an assembly designated 'fire-resistance-rated' to enclose a space or separate adjacent spaces. This can include, but is not limited to, barriers such as wall and door applications - requiring a 60-minute or greater fire-resistance-rating. Examples include stairwells, egress corridors or other fire or smoke barriers dividing construction.

Additionally, because fire-resistance-rated glass assemblies provide fire-resistance and meet temperature rise criteria, they are not restricted to 25 percent of the wall area as is typically the case with fire-protective glazing. As a result, building teams can create glazed areas that extend from floor-to-ceiling, wall-to-wall, and across multiple stories while protecting students, faculty and the structure itself from the high heat generated by building fires.

Today, whether design teams desire a full-lite, fire-rated glass door to enhance light transfer or a multi-story curtain wall to brighten an interior environment, a code-approved, fire-resistance-rated glazing assembly solution is almost always available now. There are even options for schools with lot-line protection requirements, where codes deem it is necessary to protect against the spread of fire between buildings, as is increasingly the case in densely populated cities.

Fire-resistance-rated glass assemblies approved for use on the exterior have a non-directional fire-resistance-rated construction classification. They can maintain the same fire-resistance-rating from both sides of the wall to keep fires from spreading into or out of a building.

Not only can these products provide lot line protection without sacrificing light transfer, some fire-resistance-rated glass systems are available with fire-rated insulated glass units (IGUs) incorporating tinted or low-emissivity (low-e) glass for more efficient solar energy management.

ENHANCE VISUAL CONNECTIVITY

Another key way fire-resistance-rated glass assemblies can advance educational facility design is through enhanced visibility.

Expansive glazed areas promote visual connectivity between learning spaces, encourage student interaction and simplify wayfinding. They help maintain visibility between spaces and preserve views from the outside-in.

Today, there are numerous ways design teams can use fire-resistance-rated glazing to promote visibility,



A two-hour fire-resistance-rated glazing separation enhances visibility in a high school aquatics center.
TGP Photo.

including using expansive fire-resistance-rated glass curtain walls to draw the line of sight through stairwells and nearby expanses of glazing.

One example of using fire-resistance-rated glazing to enhance visibility is seen in the Johnson & Wales University Center for Physician Assistant Studies. For DBVW Architects to turn a historic jewelry factory into a high-tech facility for the university's medical students, they needed to create an open, vibrant atmosphere.

The original building had tall ribbon windows, which transferred light across its wide floor footprint; however, the windows restricted visibility because the window sills were five feet above the floor. Students and faculty were unable to see the city streets, and pedestrians could not see in.

To create a clear circulation path for people coming into the building, the firm used a fire-resistance-rated glass curtain wall system for the entire exit stair enclosure.

"The entry is the only area in the building where people can look into the building from the outside and sense what's happening inside," says Sean Redfern, associate principle for DBVW Architects. "The thin profile of the frames and clear fire-resistance-rated glass assembly - all tested as a system, the frames and glass together - helped us achieve the transparency and fire resistance we were looking for in the space."

A two-hour fire-resistance-rated glazing separation enhances visibility in a high school aquatics center. Good visibility and fire safety were also key design goals in the expansion and renovation of the Niles North High School Aquatics Center in Skokie, Illinois.

We needed to provide a two-hour fire-resistance-rated separation between the existing building and the new addition, but we wanted the facility to read as a single aquatics center," explains Michael Maloney, LEED AP BD+C, design director for Legat Architects.

"A visual connection between pools was crucial for the concept, as well as for safety and security." The firm met these multiple needs by installing fire-resistance-rated glass and frames – tested and listed as an assembly – between the two building components.

CREATE COLLABORATIVE SPACES

Creating spaces where students enjoy learning is central to the success of an educational facility. While good daylight and visibility factor prominently into student wellbeing, so too do aesthetics. Bland, uninviting interior spaces do little to encourage student interaction and learning.

But for years, areas subject to fire- and life safety codes in schools were just that—uninviting. Most materials used to build fire-resistance-rated assemblies were opaque. And at the time, the traditional wired fire-protective-rated glazing and bulky fire-protective-rated frames used to create fire-protective-rated glazing assemblies were limited in their ability to create warm, bright and open facilities better suited to student comfort and learning.

Thanks to inventions and manufacturing innovation, building teams not only have enhanced fire-protective-rated glass and frames from which to select, but they also have access to numerous sophisticated fire-resistance-rated glazing products. Design teams can select from clear fire-resistance-rated glazing and thin fire-resistance-rated frames, which are available in versatile shapes. Frames used in resistance-rated assemblies are also available in steel, aluminum, a range of hardwood species and a wide array of powder-coated or wet-painted colors to match interior design schemes.

A brightly colored fire-resistance-rated curtain wall system reflects the playful energy of students. Improved aesthetics mean fire-resistance-rated glazing assemblies can better contribute to both form and function in educational occupancies.

A case in point is an egress stairwell in Concord, New Hampshire's Mill Brook Elementary School, designed by HMFH Architects. The fire-resistance-rated glass and framing assembly that forms the stairwell is powder coated purple to reflect the playful energy of students. It also helped the design team fulfil their vision of developing a multi-use "learning corridor" that brings education beyond the classroom—even in an area of the building subject to strict fire- and life safety code criteria.

The New School University Center in New York, designed by SOM, used a different design treatment to transform a frequently traversed fire-resistance-rated stairwell into a point of visual engagement.

The design team used fire-resistance-rated glass wall panels and fire-resistance-rated frames as an assembly with custom corners and angles to mirror the stairwell's elevations and diagonal trajectories.



A brightly colored fire-resistance-rated curtain wall system reflects the playful energy of students. TGP Photo.

This gives movement to the vertical academic building and creates a pathway for quick, safe egress while facilitating opportunities for interaction among students.

CONCLUSION

Like students working to earn a good grade, preparation is key to specifying fire-resistance-rated glazing assemblies that can meet the daily needs of students and faculty and perform well during a fire.

This includes staying abreast of how codes, code tradeoffs, product limitations and "equal or better" material substitutions may impact performance goals (see sidebar, "Prioritize Safety"). Since technologies and codes change frequently, it is important to contact the manufacturer for the latest material specifications and design listings. 🔥

Jeff Razwick is the president of Technical Glass Products (TGP), a supplier of fire-rated glass and framing systems, and other specialty architectural glazing. He writes frequently about the design and specification of glazing for institutional and commercial buildings, and is a past chair of the Glass Association of North America's (GANA) Fire-Rated Glazing Council (FRGC). www.fireglass.com, (800) 426-0279

SIDEBAR - PRIORITIZE SAFETY

State legislatures and municipalities vote building codes into law, which establish the rules for fire-resistance-rated construction in buildings.

In some instances, design professionals can substitute “equal or better” materials as a way to help reduce costs. In fire-resistance-rated construction, this does not happen, unless the listing allows the substitution.

Building codes also allow select tradeoffs – add an automatic sprinkler system – and take out fire-resistance-rated construction. While this flexibility may initially seem helpful for building industry professionals who are balancing code, cost, aesthetic and functional goals in educational-occupancies (E-occupancies), they also present risks.

A case in point is the International Building Code (IBC) tradeoff that allows some Education E-occupancies to have exit corridors with no fire-resistance-rating when automatic sprinkler systems are in place.

According to Thom Zaremba, Glass Association of North America (GANA) Technical Consultant,

Roetzell and Andress, this reduction and elimination of fire-resistance-rated assemblies is one of the most significant fire- and life safety challenges with respect to E-occupancies.

Under the 2015 IBC, egress corridors in E-occupancies with occupancy loads greater than 30 are required to have a 1-hour fire-resistance rating. However, if that same E-occupancy is sprinklered, the corridor rating drops to zero (see, IBC, Table 1020.1),” explains Zaremba. “In the event of a sprinkler system failure in an E-occupancy with non-rated corridors, a fire could have disastrous consequences.”

While the E-occupancy code sprinkler tradeoff is just one example of the risks presented by tradeoffs, the principle remains the same—know the codes and how any adjustments may impact the safety of students and faculty. The tradeoffs are legal based on the code. But, are they worth the savings in the long run?

Any minimal cost increase – to keep fire-resistance-rated assemblies in E-Occupancies – is worth adding to help safeguard the lives of students and faculty. 🔥

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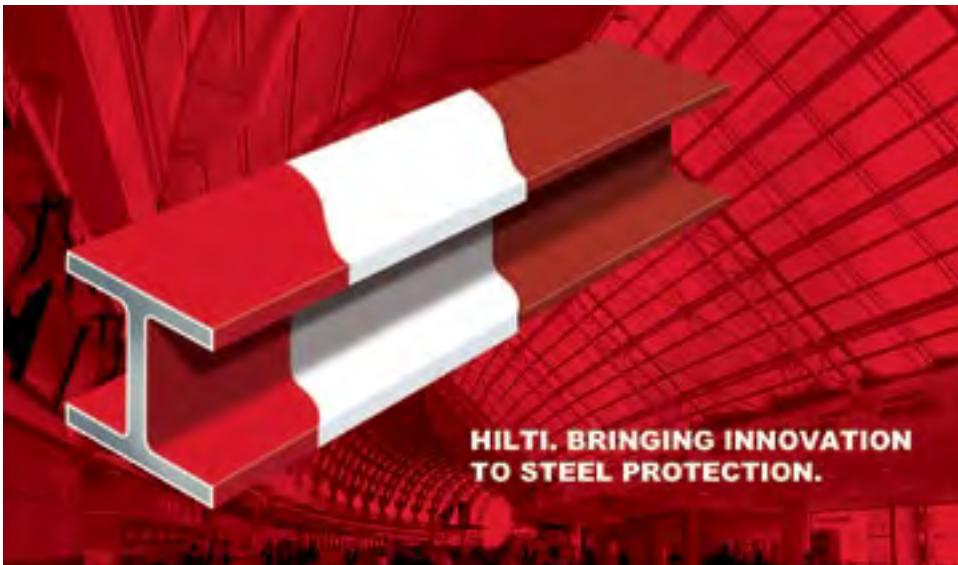


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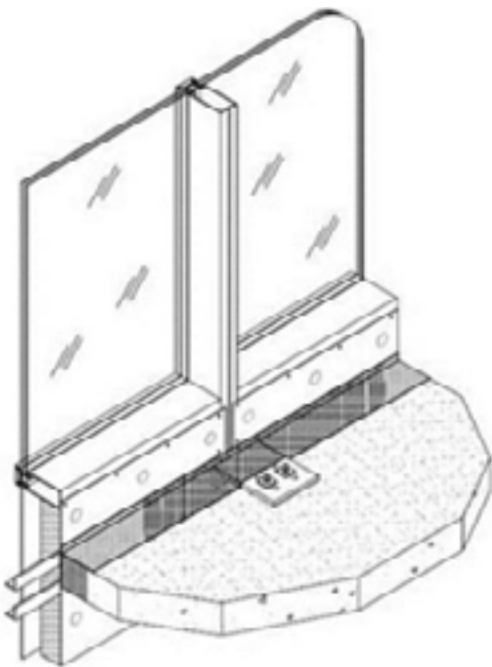
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CODES AND STANDARDS NEWS

ICC BOARD VERIFIES 2016 GROUP B FINAL ACTION OGCV PROCESS.

In accordance with Section 10.0 of Council Policy CP28 Code Development, the ICC Board of Directors has confirmed a valid 2016 Online Governmental Consensus Vote (OGCV) process as certified by the Validation Committee. The result of this is that the 2018 Versions of the International Family of Codes in 'Group B' will be published.

The Final Action on all 2016 Group B code change proposals, including the vote tallies from the OGCV, are now posted. All totaled, there were 577 code change proposals considered in the OGCV.

The 2016 OGCV concludes the 3rd full cycle of ICC's implementation of the cdpACCESS system. The 2016 OGCV resulted in significant increases in participation over the past two cycles (the OGCV

debuted in 2014 with the Group C Cycle and the IgCC).

The Code Council would like to thank everyone who has participated and supported ICC's transition to the future of Codes and Standards development. The following is a snapshot of the progress realized with cdpACCESS.

	2014 IgCC only	2015 Group A codes	2016 Group B codes
Number of code changes	193	424	577
Number of voters	284	205	1247
Total number of votes cast	22,905	45,141	162,835
Max. vote cast per change	200	221	780
Min. vote cast per change	34	48	158
Max. vote cast per day	4800 (approx.)	3428	24,898
Votes cast during extended OGCV period (3 days)	NA	NA	23,836
Number PCH actions overturned	5 (2.7%)	48 (11.3%)	109 (18.9%)

Visit <http://www.iccsafe.org/codes-tech-support/codes/code-development/> for info.

NATIONAL GREEN BUILDING STANDARD™ UPDATE PROCESS UNDERWAY.

The 2018 National Green Building Standard (ICC/ASHRAE-700) development process is now underway. The first meeting of the Consensus Committee will be held April 18-19, 2017, in Washington, D.C.

Want more info? Visit http://www.homeinnovation.com/about/news_and_events/home_innovation_news/2017_0105_home_innovation_begins_preparations_for_national_green_building_standard_update to see the details.

ICC SCHEDULE FOR 2021 CODE DEVELOPMENT CYCLE

With the posting of the Final Action for the 2016 Group B Cycle resulting in the 2018 International Family of Codes, the 2018/2019 Code Development Schedule for the 2021 I-Codes is now available.

Additionally, a "Call for Committees" for the 2018/2019 Cycle code committees and related cycle committees has been issued by ICC. The application

deadline for 2018/2019 Cycle related committees is June 1.

The new 2018 ICC Codes will be published in the Fall of 2017, according to ICC.

Visit www.ICCSafe.org for info.

ICC & GSO AGREEMENT

The International Code Council (ICC) has signed an agreement supporting The Standardization Organization for the Cooperation Council for the Arab States of the Gulf (GSO) efforts to develop a unified Gulf Building Code (GBC) for the region.

The Gulf Code will be based on the Saudi Building Code which will incorporate the latest provisions from the 2015 International Codes®. This new Gulf Building Code will support the harmonization of building practices, enhance safety and facilitate commerce in the region. Once implemented, the Gulf Code will reflect the latest advances in building safety, affordability and sustainability and be a driving force for innovation and safety advances in building design and construction.

“When the global building community comes together to promote health, welfare and safety in the

built environment, everyone benefits,” said Dwayne Garriss, President, International Code Council Board of Directors. “ICC is proud to support the GSO efforts to this end.”

“We look forward to the GSO and its member states beginning a sustainable partnership and a continuing technical cooperation with the ICC before and after the launch of the GBC,” said GSO Secretary-General Nabil Amin Molla.

The Code Council will support the GSO efforts with training and other resources to facilitate the development and implementation of the new Gulf Building Code. The GSO will also participate in the Code Council’s code development process on future iterations of the model I-Codes.

NFPA STANDARDS DEVELOPMENT PROCESS

NFPA develops standards such as NFPA 101 through its Technical Committees. Interested in getting involved? Apply for an NFPA Technical Committee or Panel through NFPA’s online Technical Committee

area. Committee meetings are open to the public. NFPA develops and revises NFPA’s codes and standards every three to five years. www.NFPA.org.

U.S. DISTRICT COURT RULING - CODES AND STANDARDS & COPYRIGHT INFRINGEMENT

The United States District Court for the District of Columbia (Hon. Tanya S. Chutkan) has issued a ruling that will support federal, state and local governments’ efforts to support public health and safety using voluntary consensus codes and standards.

On February 2, the court granted a motion for summary judgment filed by several standard development organizations (SDOs), including the National Fire Protection Association (NFPA), ASTM International and ASHRAE.

The court’s ruling permanently enjoins Public.Resource.org from its previous systematic infringement of numerous SDO copyrighted codes and standards. The ruling vindicates the long-standing public-private partnership pursuant to which government entities may, if they choose, incorporate, by reference, high quality safety codes and standards.

“We are very pleased with the court’s thoughtful and well-reasoned decision, which recognizes the importance of a time-tested process that serves governments and individuals well and is vital to public health and safety,” said Jim Pauley, president of NFPA.

The history of not-for-profit SDOs developing voluntary consensus standards goes back more than a century. SDOs, not resource-constrained governmental agencies, underwrite the substantial costs of developing standards.

“The court’s ruling means federal, state and local agencies can continue to rely on not-for-profit SDOs to develop voluntary consensus standards at the highest level of excellence and at minimal cost to government,” said Kathie Morgan, president of ASTM International.

SDOs pay for the standard development process and invest in new standards with the money earned selling and licensing their copyrighted works.

This model allows SDOs to remain independent of special interests and to develop up-to-date, high-quality standards. It also allows the U.S. government – and governments at all levels – the freedom to decide whether to incorporate these standards by reference without a drain on their limited resources. 🔥

MEMBERSHIP HAS ITS PERKS...



ADVOCACY



One of the guiding principles of FCIA is for the member organization to be recognized throughout the construction industry as preferred quality contractors of life safety firestop systems. FCIA's efforts to this end have resulted in building the FM 4991 Approved and UL/ULC Qualified Contractor Programs to give Firestop Contractors great advantages. FCIA was the code proponent to put Special Inspections for Firestopping into the 2012 International Building Codes. The group also worked to add the FM & UL Firestop Exams to International Accreditation Services IAS AC 291. FCIA's efforts have resulted in specs for FM 4991, UL/ULC QFC Programs, IAS AC 291, thereby building acceptance of the specialty firestop contractor and inspection concept in the construction industry.

EDUCATION



With two annual conferences and various symposiums, webinars and presentations throughout the year, FCIA's commitment to education runs deep. The group's Barrier Management Symposium, produced in conjunction with ASHE, UL and The Joint Commission, have been educating groups about the importance of Firestopping nationwide. FCIA's FREE Webinar series covering the "DIIM" of Firestopping hosts thousands each year. Through all this, together with their Firestop Education Programs, the group's commitment to education remains strong.

SUPPORT



From simple to complex questions, FCIA Leadership, Staff and Consultants, have the knowledge and experience to serve you. Because of our relationships at CSI, ASHE, CSC, AIA, ICC, NFPA, and many other organizations, there are endless resources to serve members. And, with several different membership types, there's certainly a membership level perfect for you.

NETWORKING



Meet and develop working relationships with Firestop and Effective Compartmentation professionals from around the globe. Events are held all over the world and are routinely attended by peers and industry influencers, as well as occasionally hosting potential clients. Put the FCIA network to work for you.

You've invested in your company. FCIA has invested in building your industry.

Join the team that's dedicated to raising awareness of and promoting the Specialty Firestop and Effective Compartmentation industry.

CONTACT US TODAY!

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INDUSTRY NEWS

NFPA ENCOURAGES PERSONAL RESPONSIBILITY FOR SAFETY IN PUBLIC BUILDINGS



Following the aftermath of the fires in Oakland, CA, Cambridge, MA and Gatlinburg, TN, the National Fire Protection Association (NFPA) released a message to the public urging people to be well-aware of their surroundings to best protect themselves in the event of a

fire or other emergency.

"We urge people to take the necessary precautions to protect themselves when they're in public buildings like malls, theatres, entertainment arenas and restaurants," said Jim Pauley, NFPA's president and CEO. He went on to say that most people don't consider fire a significant risk; that complacency is one of the greatest dangers when it comes to fire safety.

"No one ever thinks it will happen to them - until it does," said Pauley. "We hope these tragic incidents remind people that fires can and do happen, and that they need to be prepared in the event of one."

NFPA offers these fire safety tips for entering and spending time in public buildings:

Before you enter

Take a good look.

Have a communication plan.

Identify a relative or friend to contact in case you are separated from family or friends in an emergency.

Plan a meeting place.

When you enter

Locate exits immediately.

Identify all available exits.

Check for clear exit paths.

If you do not feel safe in the building, leave immediately.

During an emergency

React immediately.

If an alarm sounds, you see smoke or fire or any other unusual disturbance, immediately exit the building in an orderly fashion.

Get out, stay out!

For more information, visit www.nfpa.org

ICC ANNOUNCES THEME FOR 37TH ANNUAL BUILDING SAFETY MONTH

The International Code Council's theme for the May 2017 Building Safety Month – a worldwide public safety campaign celebrated in May – is **"Code Officials: Partners in Community Safety and Economic Growth"**.

ICC is participating and organizing events for Building Safety Month during school assemblies, hosting information booths at builder's supply stores and implementing proclamation signing ceremonies. ICC's aim is to increase awareness about the importance of building new construction and remodeling in existing buildings in accordance with modern codes and standards.

"Code Officials: Partners in Community Safety and Economic Growth" will be supported by weekly themes that spotlight specific areas of the roles of code officials in building safety and fire prevention:

-Week One | May 1-7 | Mentoring the Next Generation of Building Professionals

-Week Two | May 8-14 | Building Design Solutions for All Ages

-Week Three | May 15-21 | Manage the Damage – Preparing for Natural Disasters

-Week Four | May 22-28 | Investing in Technology for Safety, Energy & Water Efficiency

The Code Council will provide several resources to assist communities in promoting Building Safety Month. Watch <http://www.iccsafe.org/about-icc/building-safety-month/2017-building-safety-month/> for info.



DSSF VIDEO - SECURING CLASSROOMS WITHOUT COMPROMISING LIFE SAFETY



Door barricade devices in schools are intended to keep potential dangers out of classrooms; but what if the threat is already in the room?

To aid in better understanding secure and safe classroom door openings, the Door Security & Safety Foundation (DSSF) has created a short educational video as the centerpiece of their new public relations campaign, Opening the Door to School Safety.

The campaign is focused around a three-minute video, which is designed to raise awareness. School administrators and Parent Teacher Organizations (PTOs) / Parent Teacher Associations (PTAs) really need to know about safely securing classroom doors with code compliant methods. They also need to know the potential unintended consequences of using barricade devices.

The Foundation is collaborating with The School Superintendents Association (AASA), National Association of State Fire Marshals (NASFM), ASIS and many other allied organizations.

To learn more, visit <https://www.doorsecuritysafety.org/advocacy>.

NEW FORM I-9 REQUIRED AS OF JANUARY 22, 2017

U.S. Citizenship and Immigration Services (USCIS) published a new Form I-9 on Monday, November 14, 2016. The new Form I-9 has a revision date of 11/14/2016 and an expiration date of 08/31/2019. Beginning on January 22, 2017, use of the new Form I-9 was mandatory.

The new Form I-9 does present several important changes. For example, employees are only required to identify other last names used in Section 1, rather than all names used.

Also, below the employee's signature line, there is a checkbox for the employee to indicate whether a preparer and/or translator was used to complete Section 1.

Further, in Section 2, employers will find a new "Citizenship/Immigration Status" field in the first line with numbers one through four, which correlate to the employee's selected citizenship or immigration status entered in Section 1.

NASFM WELCOMES NEWEST PRINCIPAL MEMBERS



The National Association of State Fire Marshals (NASFM) recently announced their newest Principal Members. Principal Members are individual memberships in NASFM, and is reserved primarily for State Fire Marshals or the equivalent and their top deputies.

New members include: Louis Kilmer, Acting State Fire Marshal of New Jersey; and Matthew Joy, State Fire Marshal of Wisconsin. Check out www.FireMarshals.org for further info.

CAMPUS FIRE SAFETY MONTH - SEPTEMBER, 2017

Each year, a strong effort is made to raise awareness of fire risks on college campuses. Again in 2017, every governor's office is being contacted to encourage them to issue a proclamation for their state.

The fire problem on college campuses doesn't just pertain to on-campus properties, but also includes off-campus housing, such as fraternities and sororities.

The effort to secure a proclamation from every state is already under way, with the first being Governor Scott

Walker of Wisconsin. The goal is to try to get all 50 states involved this year.

For more information, or to see suggested language for a proclamation, visit

<http://www.campusfirewatch.com/proclamations>.



OSHA ISSUES RECOMMENDED PRACTICES FOR SAFETY AND HEALTH PROGRAMS IN ONSTRUCTION

On December 1, the Occupational Safety and Health Administration (OSHA) issued Recommended Practices for Safety and Health Programs in Construction to help industry employers develop proactive programs to keep their workplaces safe. The published recommendations are advisory only and do not create any new legal obligations or alter existing obligations created by OSHA standards or regulations.

The publication encourages contractors to create a safety and health program using several simple steps that include:

- Training workers on how to identify and control hazards;
- Inspecting the job site with workers to identify problems with equipment and materials;
- Developing responses to possible emergency scenarios in advance.

The recommended practices account for new materials, equipment and techniques; more diversity among workers; more temporary and contract workers; and an increased risk for occupational musculoskeletal disorders resulting from a sedentary lifestyle and aging workers.

OSHA noted in its press release announcing the publication that the recommended practices are derived from "best-in-class programs" and emphasize worker involvement in continuous improvement.

OSHA states that, "Developing a safety program with worker involvement can provide additional benefits, such as greater productivity, improve morale and a better professional reputation."



The publication is available on OSHA's website, www.OSHA.gov.

OSHA'S ANTI-RETALIATORY RULE BECAME EFFECTIVE ON DECEMBER 1

OSHA's electronic injury submission rule titled, "Tracking of Workplace Injuries and Illnesses," includes an anti-retaliatory provision which was to become effective on August 1, 2016.

OSHA announced it would delay implementation of this portion of the rule until November 1, 2016 to allow it more time to conduct additional research and provide education to employers.

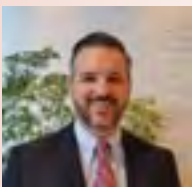
The new deadline was published by OSHA in response to a request from a federal judge who is presiding over a lawsuit challenging the rule. The judge requested the additional time to consider a preliminary injunction that

sought to delay the effective date of the rule until a final decision was reached in the case.

Significantly, on November, 28, 2016, the federal judge presiding over the lawsuit denied the request for the preliminary injunction. Consequently, the anti-retaliatory provisions of the new rule became effective on December 1, 2016.

Contractors should carefully review their policies concerning post-accident drug and alcohol testing policy and the reporting of accidents, as well as their safety incentive programs, to ensure compliance with the new rule.

ASHE NAMES NEW EXECUTIVE DIRECTOR



In October, ASHE announced its new executive director: Patrick (PJ) Andrus, MBA, CAE, who has worked for ASHE for 11 years and has most recently overseen ASHE operations as a deputy executive director for the Society.

"I am honored and excited for the opportunity to continue working with ASHE's Board of Directors, our team, and dedicated members to further the work ASHE does to optimize the health care physical environment," said Andrus.



Andrus succeeded Dale Woodin, CHFM, FASHE, who took a position as AHA vice president for personal membership groups earlier in 2016.

"When I was given the opportunity to lead AHA's division of personal membership groups this spring, it was important to me and to the ASHE Board of Directors that we establish a selection process that would produce a worthy and capable leader while providing a smooth transition, allowing ASHE's important work to continue on our current trajectory," said Woodin, who served as ASHE executive director for 11 years. 🔥

FCIA YEAR INDUSTRY CALENDAR

MARCH

March 7-9

Association of General Contractors
Las Vegas, NV
www.AGC.org

March 12-15

ASHE Planning Design & Construction Summit and Exhibition
Orlando, FL
www.ASHE.org

March 26-30

AWCI Annual Convention & INTEX Expo
Las Vegas, NV
www.AWCI.org

APRIL

April 4-6

International Facility Managers Association (IFMA) Facility Fusion US
Las Vegas, NV
www.facilityfusion.ifma.org

April 18-20

FCIA Firestop & Effective Compartmentation Symposium and FM/UL Exams
Doha, Qatar
www.fcia.org

April 23-25

FCIA Firestop & Effective Compartmentation Symposium and FM/UL Exams
Dubai, UAE
www.fcia.org

April 27-29

AIA Convention
Orlando, FL
www.convention.aia.org

MAY

May 2-5

FCIA Education and Committee Action Conference
St. Louis, MO
www.fcia.org

May 10-12

DHI's National Conference
CoNextions
Phoenix, AZ
www.DHI.org

May 17-18

International Facility Managers Association (IFMA) Facility Fusion Canada
Toronto, ON
www.facilityfusion.ifma.org

May 24-28

Construction Specifications Canada Conference
Kelowna, BC
www.CSC-DCC.ca

May 24-27

RAIC 2017 Festival of Architecture
Ottawa, ON
www.raic.org

JUNE

June 4-8

NFPA Conference & Expo
Boston, MA
www.NFPA.org

June 24-27

BOMA International Conference & Expo
Nashville, TN
www.BOMA.org

August 6-9

ASHE Annual Conference and Technical Exhibition
Indianapolis, IN
www.ASHE.org

SEPTEMBER

September 14-15

CSI CONSTRUCT
Providence, RI
www.constructshow.com

September 17-19

Canadian Healthcare Engineering Society (CHES) Annual Conference
Niagara Falls, ON
www.CHES.org

September 20-22

FCIA Canada Symposium
TBD location
www.fcia.org

OCTOBER

October 18-20

International Facility Managers Association (IFMA) World Workplace
Houston, TX
www.worldworkplace.ifma.org

October 22-23

ICC Annual Conference and Public Comment Hearings
Columbus, OH
www.ICCSAFE.org

NOVEMBER

November 6-10

FCIA Firestop Industry Conference & Trade Show
Palm Springs, CA
www.fcia.org

November 29 - Dec. 1

CONSTRUCT Canada
Toronto, Canada
www.constructcanada.com

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Recent FEMA statistics indicate significant injuries, loss of life and property damage due to clothes dryer fires in residential buildings. At the same time, code requirements for clothes dryer ventilation ducts in multi-family residences have been difficult to achieve in real-world conditions – until now.

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FyreWrap® DPS Insulation is an innovative duct wrap that provides a safe and cost-effective means to achieve a 1-hour fire resistance-rated, zero clearance enclosure for routing dryer ductwork as prescribed by the International Building and Mechanical Codes. It utilizes a lightweight, high temperature, bio-soluble fiber blanket specifically designed, UL tested and certified for this critical application. FyreWrap DPS Insulation features a ½” single layer design that is flexible and easy to cut, fabricate and wrap to fit tight spaces, providing time and cost savings on many projects.

More information on FyreWrap DPS and our complete line of FyreWrap products is available at www.arccat.com and www.unifrax.com or by calling 716-768-6500.

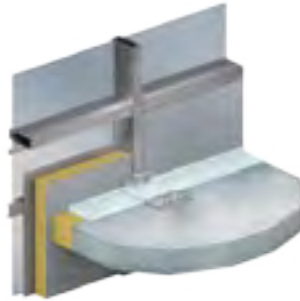
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