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Journal of the National Fire Sprinkler Association

2013 FOR ECOMPETITION

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AT NFSA ANNUAL SEMINAR AND NORTH AMERICAN FIRE SPRINKLER EXPOTH - CAESARS'S PALACE, LAS VEGAS

INSIDE THIS ISSUE:

The Alphabet Soup of Professional Development
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 A Member's Take

2012

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The 2013 NFSA Annual Seminar and North American Fire Sprinkler Expo[™] will feature the Top Tech Competition. In an event that is certain to have attendees from all over North America rooting for their favorite team, only one team will come away with great prizes and bragging rights. Be sure to be there as teams from AMRACI, CASA and NFSA vie for the coveted title of Top Tech.

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from the **PRESIDENT'S DESK**

Preventing Catastrophes

Russell P. Fleming, P.E.

he NFSA did not escape the damage from Hurricane Sandy, which roared up the Eastern seaboard at the end of October. While the winds had dropped below hurricane level by the time they reached Patterson, New York, they were strong enough to rip part of the facade from our headquarters building, the part that held the NFSA logo. The offices were closed for several days until power, water and phone service were restored, and some employees were without those services at home for more than a week.

Catastrophes are defined as natural disasters with dollar losses exceeding a specific value, currently \$25 million, and they are the great concern of the property insurance industry. Thanks to modern building codes, and the role that fire sprinkler systems play in such codes, catastrophes from fire are pretty far down on the list of types of catastrophes, and those that have taken place are generally tied to wildfires. Over the past 20 years, hurricanes and tropical storms have accounted for 44 percent of the insurance industry's losses due to catastrophes, tornados 30 percent, winter storms and terrorism about 7 percent each, earthquakes 5 percent, and wind/hail/flooding 4 percent, with only about 2 percent from fire.

The impact of fire sprinklers can be clearly seen in the reduction of catastrophic losses of life to fire. In the past 55 years there have been 5 fires involving more than 100 lives lost, whereas in the 55 preceding years, prior to building code reliance on sprinklers, there were 44 such events.

Today, most of the nation's property loss to fire, like the loss of life to fire, takes place in small events, not major catastrophes. And most of the life loss takes place in residential dwellings, the least likely place to find fire sprinkler systems.



NFSA headquarters damaged by Hurricane Sandy

When it comes to protecting valuable industrial and commercial properties, automatic sprinkler systems have been so successful in limiting fire losses that the attention of the insurance industry sometimes seems to be focused on these other sources of loss. Over time, the nation is learning that we can reap the same benefit with fire sprinkler protection of our homes.

But wouldn't it be nice if there were such a simple solution to these other potential catastrophes? \mathbf{O}

Russell P. Fleming, President

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EVENTS OF INTEREST TO NFSA MEMBERS

calendar

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raulic Calculation of In-Rack Sprinklers	ONLINE
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Keeping a Finger on the Pulse

Dennis C. Coleman

n my first From the Boardroom article as Chairman of the Board of Directors from the May/ June 2012 issue, I posed the question, "Where do we go from here." I had just been elected by the Board to serve as Chairman and Russ Fleming had similarly been elected as the association's President, replacing John Viniello who had recently retired.

One of my first responsibilities as incoming Chairman of the Board was to make appointments to various Board committees. That list of committees numbers at over a dozen right now, but as you can imagine, being an organization in transition, one of the most important committees is the one tasked with long-range planning. Our Long-Range Planning Committee is comprised of a broad cross-section of members and the Association's officers including myself as Chairman of the Board, Vice Chairman of the Board, Treasurer, President, Chairs of the Contractors, SAM (supplier and manufacturer) and Manufacturers Councils and the Association's five Vice Presidents. As the name would imply, the Long-Range Planning Committee is responsible for making recommendations to the Board regarding the association's long-term operating strategies.

Once appointments were confirmed, one of the committee's first orders of business was to participate in a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. The analysis was conducted by FMI (Fails Management Institute), nationally recognized management consultants, during a meeting of the committee held in New York this past September. From that analysis, four key goals were set.

Goal 1: Create an effective marketing capability that addresses the needs of existing members, potential members and customers

Goal 2: Increase Membership

Goal 3: Increase the number of structures, new and existing, that are protected with properly maintained fire sprinkler systems

Goal 4: Proactively Manage Labor Relations

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>> CONTINUED ON PAGE 9

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Central	Iowa, Kansas, Missouri	Chris Gaut, NFSA 237 East Fifth St. # 135 Eureka, MO 63025 (636) 692-8206 FAX (636) 410-7700	Dennis C. Coleman - Chairman Engineered Fire Protection, Inc. 1615 South Kings Highway St. Louis, Missouri 63110 (314) 771-0033 FAX (314) 664-1619
			Stan Shiner - Alternate to the ChairmanFire Protection Systems4316 Bridgeton Industrial DriveBridgeton, Missouri 63044(314) 739-1400FAX (314) 739-6401
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>> CONTINUED FROM PAGE 7

To achieve each goal, corresponding strategies were established and assigned to a committee member based on their individual responsibilities within NFSA. For example, Jim Lake, NFSA's Vice President of Training and Communications, will be working very closely with David Vandeyar, Director of Membership & Communications, on several key strategies identified to more effectively market NFSA's capabilities and increase membership. They include developing a "Did you Know" campaign to help members better understand the resources available to them through NFSA and establishing periodic membership drives to bring focus to new member recruitment efforts.

There is a lot going on at NFSA, both

in the field and behind the scenes and our Long-Range Planning Committee is just one of many committees that's a driving force behind guiding the Association forward. To stay abreast of all the activity, I urge every member to read through NFSA member publications and meeting minutes when you receive them. They are filled with valuable information that will put, and keep, your company on the competitive leading-edge. It is just one of the many NFSA resources that you, our most valued members, can use to keep a finger on the pulse of the industry. **(**

Dennis C. Coleman, Chairman of the Board



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CONTRACTOR'S CUE

Change of Address

Editor's Note: Stuart Zisholtz comments on New York State Law

When a corporation is organized, the Secretary of State receives a Certificate of Incorporation which lists the name and address of the corporation and the managing agent. If and when the corporation is sued, the plaintiff can arrange to serve the corporation by serving the Secretary of State. The Secretary of State receives the Summons and sends a copy by certified mail to the address that the Secretary of State has in its file for the corporation. If that address is wrong, outdated and old, the certified mail will be returned to the Secretary of State. The corporation may never know about the lawsuit and default. As a result, default judgments are entered because the corporation defaulted and did nothing about the lawsuit.

After a default judgment is entered, the plaintiff has the right to attach any assets it can locate. These assets include bank accounts, inventory, equipment, etc. Many times the corporation becomes aware of the default judgment after the assets have been restrained.

Courts are usually very liberal in vacating default judgments. However, recently the courts have been rendering decisions holding the corporation accountable for failing to advise the Secretary of State of its new address. This could have major ramifications if the lawsuit involves a negligence action because the insurance company could disclaim coverage. It could also impact the corporation where a contractor is suing for money it claims to be due and owing. If the default judgment is not vacated by the court, any defenses that the corporation may have are moot. It is vital, therefore, that you confirm your corporate information with the Secretary of State. You can call the Secretary of State or check online at www.dos.state.ny.us.

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By Don Pamplin

I saw a sign that said

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"Remember the 50-50-90 Rule for Firefighting Survival"

he sign was hanging at the front of a training classroom for candidates preparing to take a "Fire Department Officer's Examination" that would qualify them for active duty as a probationary Lieutenant in a fire station working with the shift Fire Captain to properly supervise and safely manage firefighters at a fire scene.

I was in that class and I never forgot the Training Officer's explanation of a rule that said, "Anytime you have a 50-50 chance of getting something right, you will make the wrong choice ninety percent of the time!" Some say the probability of getting it wrong is 80 percent. Think of flipping a coin where you think there is a 50-50 chance of correctly calling whether it will land heads or tails. Tests have proven that your call is wrong 80-90 percent of the time. Where that rule originated from is not known but the late Andv Roonev of 60 Minutes and Broadcaster Paul Harvey used it many times to emphasize a special point in stories they would tell. The Training Officer in our class was trying to make his special point that there is no room for that kind of decision making at a fire scene by the Incident Commander or by any fire officer who is responsible for the safety of their crew. There are many tragic examples on record every year where fire personnel die or are seriously injured because Fire Officers made bad decisions and wrongly put their fire crews in harm's way. That's one of the reasons why fire departments get sued. The cost of fire litigation today is over a billion dollars per year!

The problem is so bad, that on August 29, 2012, The U.S. Fire Administration (USFA) and the International Association of Fire Chiefs (IAFC) began a partnership initiative to identify and examine different types of individual and organizational behaviors that adversely impact firefighter health and safety and to develop sound strategies and programs based on the study's findings. The IAFC's Safety, Health and Survival (SHS) Section will help coordinate this effort. USFA Administrator Earnest Mitchell said, "The USFA is excited about this opportunity to work with the IAFC and its SHS Section on this research effort."

This project would assist in the support and advocacy for the need of a culture change in the fire service, incorporating organizational leadership and personal responsibility. IAFC President and Chairman of the Board Chief Hank Clemmensen said, "There's a fundamental need for this type of research that will promote positive behaviors and effectively lead to further reduction of firefighter fatalities and injuries. The IAFC is pleased to partner with the USFA in this effort."

In addition to all this happening, there has recently been a "Kill the Flashover (before it kills you)" Project taking place in North Carolina that has been promoted and organized by Joe M. Starnes, Fire Chief of the Oak Grove Volunteer Fire Department in Kings Mountain, North Carolina.

Read carefully what he has to say about the North American Fire Service's unnecessary risk taking:

"While studying flashover causes and occurrences, it became clear that some of our high-risk (and often unnecessary) fire suppression tactics border on the insane. We hold the "rescue" joker card in reserve if our actions border on stupid; so many firefighters have been injured and/ or killed during primary search when the only occupants in the structure were the firefighters. Not only do we take abnormally high risks, we often (in our urgency) perform these searches without hoselines, water or a crew (think lone cowboy). I think some of our motivation is similar to our choosing six lottery numbers each week (might get lucky this time). The difference is in the lottery we are betting \$1, not our life or the lives of our crews. Our service justifies these deaths and injuries with firehouse conversations that immortalize our risks and funerals.

>> CONTINUED ON PAGE 12



in Public Safety Award recipient, Don is recognized throughout North America as a fire sprinkler advocate.

As an NFSA Leadership

>> CONTINUED FROM PAGE 11

This legendary storytelling plays over and over in the mind of the young recruit or the new officer. We make it our mission to work on the edge of managed acceptable risk, while looking for the opportunity to jump to the other side. We rarely believe the fire will outperform our dedication, tools and skills. For goodness sake, only 100 firefighters die during millions of calls every year. Surely this is not the fire that will injure or kill me. The odds are one in a million. Yet about every month, we label one of our own a hero due to the fire outperforming the firefighter. This doesn't include all the causes of fatalities. Nor does this data say anything about the thousands of near misses that occur.

Kill the Flashover would not be a sincere effort to reduce firefighter injury and death from thermal insult without asking guestions that help define the "why" behind some of our risk-taking behavior."

You can get more information on the "Kill the Flashover" project from Chief Starnes at joe@joestarnes.com.

As an active and retired Metro Fire

Chief, I have been preaching the "gospel of fire sprinklers" for over 22 years. It all started when Ronny Coleman emphatically told me that "muscle and hose will never solve the residential fire death and injury problem in North America." As I have related many times, I was offended by his comments because I had been "programmed" for many years to believe that a fast-attack fire department, with appropriate manpower and equipment can save people in a residential fire setting.

"Total Intervention Time"

Nothing could be further from the truth because, according to current NFPA statistics, the average Total Intervention Time (TIT) of a responding fire department is more than ten minutes, which is well beyond the point of flashover in most fire structures. If you are not familiar with the terminology "Total Intervention Time," it is the total length of measured time from the point of fire ignition to when an extinguishing agent (usually water) is applied to the fire. Most fire departments in North

America arrive at the fire scene after flashover has occurred and then start to do the dumb things that get fire personnel killed or seriously injured. When you add in the huge risk factor of increased structure collapse and increased fire spread due to liahtweiaht roof and floor wood assemblies that homebuilders are now using in their homes, the fire department has the cards stacked against them. Too often they lose. and so do the people they are trying to protect and save. It's a situation that is a monumental tragedy, especially when you have Fire Chiefs and their administrations that still persist in using an operational model that does not work with a consistent level of success.

Yes there are occasional rescues that get sensational newspaper headlines and unfortunately that just continues the myth that all a homeowner has to do is call 9-1-1 and firefighters will immediately be there and will "walk on water" to solve the homeowner's fire problem. Tradically. it just isn't true. The majority of fire deaths and injuries happen before responding fire departments have even arrived. After "flashover," the responding fire department is fighting a defensive battle. That's why you continually hear the Incident Fire Commander say to the responding media. "It was fully involved when we arrived and unfortunately, we could not get them out alive."

The residential fire problem is dangerously weighted against residential occupants, while homebuilders across the country spread rhetoric that fire sprinklers are not necessary, that new homes are "fire-safe" and that smoke alarms are all that is needed for residential families to escape from a fire that probably will never occur. Over the last 50 years, there are millions and millions of new homes that have been built in suburban subdivisions in North America that don't have the benefit of quick response fire sprinkler protection that will start fighting the fire before flashover occurs and, in most situations, even before the fire department has been called to respond.

Knowledgeable and honest fire officers who understand the flashover residential problem often refer to these subdivisions as "residential fire death camps." They know their limitations as a responding fire department and the fact that they can't achieve what the homeowner unfortunately thinks they can. Chief Starnes is absolutely right - Kill the Flashover before it Kills You!

Don Pamplin is a former Metro Fire Chief (Vancouver, B.C.) and the former NFSA Regional Manager for the Pacific Northwest and can be reached with comments and suggestions at firecon@shaw. ca 🛈

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CEUs, CPDs and LUs, the Alphabet Soup of Professional Development

By James D. Lake



hen it comes to professional training and education, the most frequently asked questions revolve around how many CEUs

will a seminar be worth or alternatively, how many CPDs, and for registered architects, LUs.

CEUs

Continuing Education Units (CEUs) are basically a measurement of the time that a learner spends in contact with the content of the learning activity. This includes classroom, self-paced instruction, assignments or homework in support of a learning outcome.

Calculations for CEUs can vary from state to state. But there is also a standardized calculation process that NFSA follows. This process for calculating the CEUs for a learning event is in compliance with ANSI/ IACET 1-2007 Standard for Continuing Education and Training which is published by the International Association of Continuing Education & Training (IACET).

IACET is an organization that is dedicated to promoting and ensuring the presence of quality in the continuing education and training field. This field encompasses learning opportunities in the traditional classroom as well as the technology-supported virtual classroom in both the public and private sectors. The standard sets forth a quality learning process and an effective system for addressing continuing education needs. In the IACET calculation process one CEU = 10 hours of learner contact with the content of the learning activity, which as previously mentioned, includes classroom, self-paced instruction, assignments, or homework in support of a learning outcome.

To calculate this, NFSA staff develops documents that outline the content and time duration for a training event.

CEUs for classroom events are then computed by totaling up all of the minutes for all activities in a learning event and subtracting time spent on non-allowable activities such as introductions, breaks and lunch.

The resulting time (in minutes) is then divided by 60 (minutes), and divided again by 10 (hours), with the fraction for the last few minutes rounded off to the nearest tenth.

Calculations resulting in less than .5 are rounded down to the next lowest number and calculations resulting in greater than .5 are rounded up.

It gets a little more complicated for distance learning, self-paced, or individual work. The calculation process is the same however the number of CEUs needs to be corroborated by a pilot program and averaging the time required to complete the program or other reasonable method for computing hours for CEU application.

Calculations are reassessed when a major change to course content, method of delivery, change in equipment/software, or demographic audience occurs.

Taking as an example the NFSA 3-day Inspection and Testing for the Sprinkler Industry seminar, the calculation would look something like this.

Total Time:

3 x 480 minutes = 1440 minutes (three days @ 8 hours per day)

Total Non-Contact Time: Lunch - 3 x 60 minutes = 180 Breaks - 6 x 15 minute = 90

Total Contact Time with Material (Minutes) 1440 - 180 - 90 = 1170

Total Contact Time with Material (Hours) 1170/60 = 19.5 Hours

Total CEUs 19.5/10 = 1.95 or 1.9 CEUs

CPDs

Professionals that are certified by the National Institute for Certification in Engineering Technologies (NICET) report a different type of learning unit; the CPD.

>> CONTINUED ON PAGE 14



Vice President of Training and Communications

James D. Lake

>> CONTINUED FROM PAGE 13

For NICET certificants Continuing Professional Development (CPD) is required to maintain certification in Active Status beyond the expiration date of the certification. Recertification is achieved by accumulating a prescribed number of continuing professional development points within the certification period through professional development activities directly related to the following:

- A. Being an active practitioner in the certification practice area.
- B. Acquiring additional education pertinent to the certification practice area.
- C. Participating in activities which advance or broaden the body of knowledge for the certification practice area.
- D. Actively seeking to upgrade certification(s) held and/or actively seeking initial or upgrade certification in related practice areas.
- E. Successfully completing a special (certification maintenance) written examination.

For the purposes of this article the focus will be on Item B in this list.

NICET defines additional education as efforts undertaken to advance, broaden, and enhance the certificant's technical knowledge and job skills. These efforts may range from taking a college course for a grade to a less formal company sponsored in-house training session. It is important to note that NICET does not pre-approve courses, seminars or other training efforts for CPD points. It is the responsibility of the certificant to assure that such activities meet the NICET requirements. It is particularly that the learning event increases the certificant's knowledge, not merely cover what should already be known.

CPD points can be earned through college credit courses, offerings with preassigned CEUs or less formal offerings such as workshops, seminars, distance learning, technical presentations and training sessions.

NFSA offers many learning opportunities with pre-assigned CEUs, for these seminars



During a Fire Prevention event in Chicago, Illinois sponsored by the Northern Illinois Fire Sprinkler Advisory Board, NFSA Vice President of Training and Communications Jim Lake instructed an *NFPA 25 for the AHJ* class.

NICET calculates one CPD point per 0.1 CEU or 10 points per CEU. So using the example of the three-day IT seminar above 1.9 CEUs would equal 19 CPDs.

NFSA also offers less formal learning events such as workshops at annual or regional meetings, distance learning through NFSA.tv, technical presentations at related meetings and conferences such as SFPE or NFPA, and other training sessions such as presentations at local area interest meetings or state association meetings.

For these events one CPD point is awarded per each contact hour. A contact hour is defined as the 45 to 60-minute period devoted to the learning effort. Fractional points are not recognized and stand-alone 30-minute session has no point value, however a course of two 30-minute sessions (even if sessions are on different days) has a value of one point.

This means that each TechTuesday offering on NFSA.tv is good for one CPD point.

LUs

All AIA/CES (American Institute of Architects/Continuing Education System) courses, including distance education courses, must be at least one hour in length. AIA/ CES course participant credits are designated in Learning Unit (LU) hours. There are three types of AIA/CES provider course learning units:

- General LUs (abbreviated as -LU)
- Health, Safety, and Welfare (HSW) (abbreviated as -LU/HSW, since they qualify as LU and HSW)
- Sustainable Design (SD) (abbreviated as -LU/HSW/SD, since they qualify as LU, HSW and SD)

The minimum course length is one hour. and the minimum number of credits that can be awarded is one LU Hour. One contact hour or one hour of time spent directly on education is equal to one LU and should be written as one LU Hour. If a course is more than one hour in length, additional credit is given in 0.25-hour increments (Example: A 1 hour, 45 minute course = 1.75 LU Hours). The provider (NFSA) determines how many credits each course is worth. Breaks or nonworking lunches do not count as direct education, and providers must exclude time spent in breaks and nonworking lunches from the total number of LUs awarded. Participants must attend an entire session and participate to receive credit.

NFSA training and education seminars, webinars and courses all carry CEU and CPD designations. Many of our courses also carry LUs for architects. The list continues to grow. Information on the CEUs, CPDs and LUs available for these training sessions are available in the seminar descriptions in the training and education section at www.nfsa. org.



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DECEMBER 4, 2012

Hanging and Bracing of In-Rack Sprinkler Systems - INTERMEDIATE/ADVANCED TBD

In-rack sprinkler systems must be supported by the rack they are protecting. This support requirement applies to both gravitational and seismic loads. As the purpose of the racks is to store product, the physical space remaining inrack flue and face sprinklers to fit is limited. This can affect the type and location of hangers for the in-rack systems. The seismic protection, in addition to the limited physical space, also faces the challenge of the rack movement during a seismic event. The application of the seismic guidelines will also be examined.

DECEMBER 18, 2012

Tips for Better Storage Protection - BASIC Karl Wiegand, E.I.T.

Most people understand that the rules for proper protection of storage occupancies depend on the commodity being stored and the storage arrangement (palletized, shelf or rack) and that different chapters of NFPA 13 apply to different combinations of commodity and arrangement. But what many people fail to appreciate in NFPA 13 is that Chapter 12 is full of important criteria that apply to all storage occupancies. This seminar will focus on the little known portions of Chapter 12 that need to be followed for all storage situations. In many cases, these sections can help the user protect a storage occupancy with a lesser demand, which provides the customer with better fire protection at a lower cost.

JANUARY 8, 2013

Rules Governing Fire Sprinkler Installation - BASIC Jeff Hugo, CBO

NFPA 13 is the primary document to use for installing fire sprinkler systems. However, there are several other codes and standards involved when designing, installing, testing and inspecting sprinkler systems. Layout technicians, contractors, designers, suppliers, and AHJ's will all have a different responsibility, but all are using the same documents. This course will detail how these codes and standards are arranged, how they work together (and what to do when they don't), along with how chapters and sections are organized.

JANUARY 22, 2013

Basic Hydraulics - BASIC

TBD

The concepts of pressure and flow are vital to the performance of a sprinkler system. The relationship of these two variables can be expressed in a few equations that are the basis for hydraulic calculations and the demand of the sprinkler system. Static and residual pressures to water supplies will be discussed along with flow concepts. Formulas will be explained covering pressure loss as water flows between points as well as flow from an orifice.

FEBRUARY 5, 2013

Backflow Preventers and Sprinkler Systems - BASIC James D. Lake

Backflow is the process by which water from within a system that is connected to a potable water supply "flows backward" from the system into the water supply piping. Because sprinkler systems are typically connected to the municipal potable water supply there is concern on the part of the water purveyors regarding the potential for sprinkler system water to backflow into the potable system resulting in contamination. This seminar will explore the background of concerns on the part of water authorities; the subsequent impact of regulations on sprinkler system installations, and how the impact can be mitigated.

FEBRUARY 19, 2013

Supporting Sprinkler Pipe - BASIC

Victoria B. Valentine, P.E.

Supporting the sprinkler system piping is an important part of a quality installation. This program will review the types of hangers commonly used and their proper spacing. Trapeze hanger options will also be explored. In addition, other installation criteria, such as using the structure to directly support the sprinkler pipe will be covered.

MARCH 12, 2013

Spacing of Sprinklers - BASIC

TBD

The rules for determining acceptable spacing for spray sprinklers will be reviewed. This includes pendent, upright and sidewall styles. Maximum and minimum distances between sprinklers and those from sprinklers to walls will be covered along with the calculation of allowable coverage areas per sprinkler. Spacing the sprinklers will also incorporate identification of obstructions and the appropriate distances that need to be maintained.

MARCH 26, 2013

Selecting Sprinklers - BASIC

Jeff Hugo, CBO

Selecting fire sprinklers for a project can be a task even to the most experienced layout technician. This program details the types of available sprinklers, such as their positioning, placement, temperature ratings, response, K-factors, and unique listing characteristics to guide the user towards wise selections and cost efficient solutions. Discussion will also cover how the entire design team needs take an active role in the type of sprinkler chosen so that all of the benefits can be used.

APRIL 9, 2013

NFPA 13 Installation Criteria, 2013 Edition - INTERMEDIATE Karl Wiegand, E.I.T.

The new edition of NFPA 13 has brought about some significant changes to the installation requirements for sprinkler systems. These changes include allowable system sizes, the definition of a system, CPVC compatibility requirements, and many others. This presentation will cover all of the major changes to the installation requirements of NFPA 13, 2013 Edition including the changes to the hanging and bracing requirements.

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Sprinklers in Closets

By Kenneth E. Isman, P.E.



whether or not you need to put a sprinkler in a closet. That decision has been discussed in many other NFSA publications and will be covered in the future as well. Basically, we put sprinklers in almost all of the closets in buildings protected by NFPA 13 with the exception of some small hotel guest room closets and some small hospital patient room closets.

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be about the decision as to

Instead, this article will focus on answering the questions regarding the location of the sprinklers in the closet and the number of sprinklers that you need to protect a closet, given the potential obstructions that might exist near the top of the closet. This article will assume that the closet is a relatively small compartment (much less than 100 sq ft). This article will apply to all closets, including those closets that have small pieces of mechanical equipment or laundry machines.

How Many Sprinklers Are Needed?

Many closets have light fixtures near the top of the closet that potentially form obstructions to the sprinklers. Other closets have multiple elevations at the top so that a single sprinkler could not be installed at the top of the closet and spray under the change in elevation at the ceiling. There are also closets with wide shelves that take up a significant percentage of the area of the closet or closets where stacks of material on the shelves gets close to the elevation of the sprinkler deflector. All of these circumstances might lead a person to believe that you need multiple sprinklers at the top of the closet to provide adequate sprinkler protection, but that has never been the case with NFPA 13.

The writers of NFPA 13 have always been of the opinion that you only need one sprinkler near the top of a closet. The standard has never intended that the user would have to apply the sprinkler obstruction rules or the minimum clearance rules at the top of a closet. Due to the size of most closets, there is no way to position the sprinkler away from the potential obstructions and still keep the sprinkler inside the closet. Additional sprinklers generally won't work because the sprinklers can't be separated by the minimum distance of 6 ft required by NFPA 13, setting up a conflict of rules.

A typical follow-up question to the paragraphs above is, "Where does it say that in NFPA 13?" While this question is understandable given the legal climate and culture that has developed in the last 30 years or so, it is a bit frustrating for the committee responsible for this portion of NFPA 13 for two reasons:

 The committee can't hope to cover all of the special situations that occur in the tens of millions of sprinkler systems that will go into all of the buildings that will be constructed with each edition of NFPA 13. The standard is already more than 400 pages long (and people claim that it is too difficult to find what they need as it is). To cover every specific rule for every specific situation would take hundreds of more pages, and then the committee could not hope to get every situation. By attempting to address one special situation, the committee would be giving the impression that they really do want to put everything in the document, which is the opposite of what the committee really wants. The committee wants logic and common sense to dictate special situations that are not directly addressed in the standard.

2. If the committee were to address this directly, they would need to come up with measureable quantities to which the rule would apply. As soon as the committee comes up with measurable quantities where the obstruction rules would not apply, the implication would be that the rules have to apply to any larger closet. And that is not the intent of the committee. For example, if the committee decided that the obstruction rules could be ignored for closets >> CONTINUED ON PAGE 18



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up to 50 sq ft in area, then the user would have to pay attention to the obstruction rules for a closet with an area of 51 sq ft. This is not what the committee wants. Under the NFPA rules, no language can go into a standard until 67% of the committee agrees with the exact language. It has been very difficult to get the committee members to agree to the exact dimensions of closets that do not need to worry about obstructions because we all draw the line a slightly different numbers and we don't want to compromise because that will put someone in a position where they might need to add sprinklers to explicitly comply with the standard regardless of whether those sprinklers will actually help a situation and those sprinklers could end up violating another part of the standard anyway (like the minimum distance between sprinklers).

As stated earlier in this article the committee has not addressed this issue in previous editions of NFPA 13 because they were hoping that logic and common sense would prevail and that they would not need to address the subject directly. You can see this in the actions of the committee over the many different years of developing NFPA 13. For example, in the 1999 edition of NFPA 13, a person wrote to the committee and asked that an exception to the 18 inch clearance rule be written into the standard for closets and pantries so that additional sprinklers would not be required due to the obstruction of the closet shelf. This exception was rejected by the committee, but not because they thought that the 18 inch clearance rule should apply or because they thought that additional sprinklers were needed in closets. Instead, the committee rejected it because they did not think that the language needed to be in the standard. Specifically they said, "The Committee agrees sprinklers are not required below shelves in closets but do not believe shelves in closets present a sufficient problem to warrant adding this material to the standard." (See Proposal 13-72 on page 1088 of the Report on Proposals for the NFPA 1999 Spring Meeting in Baltimore, MD.)

In other words, the committee has established a threshold for material to get into NFPA 13. If the issue is not sufficiently above the threshold, the committee will not put the special requirement in the standard, even if the committee agrees with the conclusion on how to deal with the special situation. This is true for other issues besides closets, but these other issues will not be the subject of this article.

What About Obstructions Causing Delay in Sprinkler Response?

Typically, code enforcement officials are concerned with an obstruction near the top of the closet causing a delay in the response of the sprinkler. Even when they are shown the statement in NFPA 13 where the "three-times rule" only applies to structural members and not light fixtures, they still are concerned. In this case, with such a small compartment, there is no reason to be concerned. The heat from a fire will build up in such a small compartment and get around any obstruction near the sprinkler without difficulty. Research and real-world experience have shown this statement to be true.

In 2005, the National Fire Sprinkler Association performed a research project looking at the interaction between residential sprinklers and obstructions such as light fixtures and ceiling fans. The research, which included fire modeling in a compartment slightly larger than 1,000 cubic feet and full-scale fire tests in rooms slightly over 1,500 sq ft showed that the response time of the sprinkler was not adversely effected by the presence of a light fixture or ceiling fan, even when the sprinkler was on the opposite side of the obstruction from the fire and close to the obstruction. Heat from the fire bounced off of adjacent walls and other surfaces and got to the fire from all angles, negating any effect from the potential obstruction.

What About Obstructions Causing Interruptions to Sprinkler Discharge?

The next concern of code enforcement officials is that the obstructions near the ceiling will interrupt the sprinkler discharge and allow the fire to continue burning in the closet. This should also not be considered a problem. As noted above, NFPA 13 allows the user to ignore the obstruction rule known as the "three-times" rule for non-structural objects near the ceiling. In small, confined compartments, the situation is even less of an issue.

Water discharging from the sprinkler has to go somewhere; it does not just disappear once it leaves the sprinkler. In a small compartment like a closet, the water will bounce off of all of the walls and surfaces and maintain a wet atmosphere in the compartment. Water will not only bounce around and get to most surfaces in a closet, but it will also be entrained in the air going to the fire so that the fire will draw the water droplets towards itself as it draws in oxygen.

The discharge of water from a sprinkler in such a small compartment would be much greater than the minimum needed to control a fire. Typically, closets in residential occupancies would require a minimum 0.1 gpm per sq ft density while mechanical closets would require a minimum 0.2 gpm per sq ft density. But at a minimum pressure of 7 psi, a regular orifice sprinkler (k-5.6) will discharge so much water that the density will be over 0.5 gpm per sq ft in any reasonable size closet. Even a small orifice sprinkler (k-4.2) would discharge more than 11 gpm at 7 psi, which would create a discharge density of at least 0.45 gpm per sq ft in most closets. This type of discharge density is more associated with Extra Hazard occupancies rather than Light Hazard or Ordinary Hazard, which is appropriate since the definition of Extra Hazard Group 2 (section 5.4.2) states that this hazard classification is appropriate for, "occupancies where shielding of combustibles is extensive."

In other words, NFPA 13 has already acknowledged that an increase in discharge density can make up for the potential obstructions that might exist at the ceiling. The use of a single sprinkler at the top of the closet is an extension of this discussion.

How About Minimum Distances From Walls?

One thing to watch out for in closets is the minimum distance of a sprinkler from >> CONTINUED ON PAGE 19

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november - december 2012

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the wall. Section 8.6.3.3 of NFPA 13 states that the sprinkler needs to be at least 4 inches from the wall. Many people believe that this is due to some concern about the heat from a fire not getting into the corner close to the intersection of the wall and the ceiling. But this is not really a significant concern, especially in small compartments like closets where the heat gets to the sprinkler from many directions.

In reality, this section of NFPA 13 is more concerned with the practical matter of installing the sprinkler. The fitter that is going to screw the sprinkler into its fitting needs room for the sprinkler wrench to get around the sprinkler. We do not want people using channel locks and grabbing onto the sprinkler from only one side to screw the sprinkler into its fitting. Instead, the sprinkler wrench needs to be used correctly in order to distribute the force of the twisting motion evenly around the body of the sprinkler so that the parts of the sprinkler are not distorted during installation. The 4-inch minimum is intended to help create sufficient room to get the proper sprinkler wrench onto the sprinkler.

When installing sprinklers in closets, it may be difficult to get the sprinkler away from the obstruction and still keep the minimum distance from the wall. This is one of the reasons why the committee is less interested in keeping the sprinkler any specific dimension away from any potential obstructions at the ceiling. It is important that the sprinkler be installed correctly and not damaged during installation, even if it is close to an obstruction.

Will the 2013 Edition of NFPA 13 be the same on this Issue?

No. Due to the continued voicing of concerns by code enforcement officials on this issue, the committee has decided that it is going to add a section to the standard to address this issue explicitly. The concept of relying on common sense has not been effective, so the committee has added a new section into the 2013 edition as follows:

"8.5.5.4 Closets. In all closets and compartments, including those closets housing mechanical equipment, that are not larger than 400 ft3 (11.33m3) in size, a single sprinkler at the highest ceiling space shall be sufficient without regard to obstructions or minimum distance to the wall."

There are a number of items to note in this new section. First, the section is being placed in 8.5 of NFPA 13, which means that it applies to all sprinkler situations, not just one type of sprinkler or one type of orientation. Second, the section applies to all closets, even those housing mechanical equipment.

Third, the compartment size is limited by a volume in cubic feet rather than an area in square feet. Assuming a typical ceiling height of 8 ft, this would limit the closet size to one of 50 sq ft, however, a taller closet would need to be smaller in order to use this rule. It is also worth mentioning that larger closets may also fall into the situation where it is not important to worry about the obstruction rules. The committee worded the section in such a manner that closets up to 400 cubic feet are covered, but closets larger than 400 cubic feet are not automatically excluded either. These larger closets are still in the same situation as the smaller closets were in with previous editions.

Finally, the new rule allows the user to protect a closet with a single sprinkler regardless of the obstruction situation at the ceiling. At the same time, the new rule also allows the user to disregard the minimum 4-inch rule as long as the user is still careful to install the sprinkler with the proper equipment and not damage the sprinkler when screwing it into the fitting.

While this section is new to NFPA 13, it is not really a change in philosophy for the committee. As discussed before, NFPA 13 has never intended to apply the obstruction rules at the top of a closet.

SUMMARY

Regardless of the edition of NFPA 13 that you are using, the intent is to not apply the obstruction rules or sprinkler clearance rules at the top of the closet. A single sprinkler at the top of the closet is sufficient. For the 2013 edition of the standard, this will be explicitly stated, but it has always been the intent of NFPA 13.



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Caulking Fire Sprinklers for Energy Code Compliance

By Jeff Hugo, CBO



aulk. It ranks up near the universal triage practice of duct tape, tie wire and glue. Its use in the sprinkler business can be beneficial, but overzealousness with the caulk

gun can have deadly and costly results. Energy and Green codes are being developed and adopted at a guick pace. We are seeing energy conservation at new levels throughout the nation. With this rise, a lot of specialty products and contractors enter the scene with good intentions, but with practices that need to

be corrected. Energy codes go beyond prescribing minimum insulation R-values. The IECC (International Energy Conservation Code) addresses the entire building envelope. Part of achieving this minimum energy conservation is to control or stop air leakage through the air barrier or building envelope by penetrations. Sprinklers, especially pendent sprinklers, are being considered as penetrations through this air barrier, and are being caulked. Caulking is being installed where the cover plate contacts the ceiling material or in the gaps caused by the escutcheons in an attempt to meet air leakage requirements within the energy codes.

In our research of the IECC, we don't find that the practice of caulking around fire sprinklers is permissible. Section C402.4.2 of the 2012 IECC states that the penetrations in the air barrier shall be caulked, gasketed or otherwise sealed in a manner compatible with the construction materials and location. Caulking the sprinkler, escutcheon. or cover plate could delay, cease or interrupt the flow of the fire sprinkler. In cases when a concealed pendent fire sprinkler is used, the caulk may adhere the cover plate to the ceiling material and severely delay the fast response of the sprinkler

There are some sprinkler manufactur-

ers who have a seal or gasket installed on the cover plate or escutcheon for the installation of sprinklers in clean rooms. These same sprinklers may be of benefit to those trying to cut down or eliminate air leakage in the building envelope.

The same IECC section above, also states that the "sealing materials shall be appropriate to the construction materials being sealed." Caulk and other sealants are never compatible with sprinklers, escutcheons and cover plates. Building designers and contractors may consider sealing from the back side or beneath the escutcheon or cover plate as a solution. This practice would be very similar to how through-penetration firestops (filling the annular space) are installed, however keep in mind, these fire-rated penetration assemblies are tested and listed. To parallel this practice with a foreign sealant or caulk may sound reasonable but without knowledge of fire sprinklers, the on-site



application will cause the same delays and damages noted in this article. In fact, some caulks and sealants are chemically incompatible with certain piping and the pipe manufacturers should be consulted prior to applying any material.

The fire sprinkler, escutcheon and cover plate are designed to fit together without any adhesive. Escutcheons and cover plates can have gaps or spaces that are required to meet certain specification tolerances for activation of the sprinkler, but in most cases the escutcheons and >> CONTINUED ON PAGE 23



Jeff is NFSA's Manager of Codes

Jeff Hugo, CBO



The Fire Sprinkler Guide -2009 Codes Edition is Now Available!

RESOURCE CÉNTER

Produced by NFSA, this second edition of The Fire Sprinkler Guide defines those sections of the three model building codes, the Life Safety Code (NFPA 101) and International Building Code where fire sprinkler systems are required, including partial requirements and construction incentives. The guide includes comparison tables to clarify many of the code requirements. The guide is a valuable tool for architects and engineers, plan reviewers, fire and building inspectors, as well as sprinkler contractors, and serves well as a workbook for students at the NFSA's Design Advantage Seminar. With almost 400 pages of text, this book is a "<u>must have</u>" for anybody that performs hydraulic calculations of fire sprinkler systems or performs plan review and approval of hydraulic calculations.

Order your copy at www.nfsa.org at the Resource Center or fill out and return the order form below.

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cover plates should fit tightly to the wall or ceiling.

Furthermore, the intent of the IECC (Section C101.3) is not "intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances." When fire sprinklers are installed or required by other codes such as the IBC, they are installed according to those referenced standards. Fire sprinklers are installed by NFPA 13 (Standard for the Installation of Sprinkler Systems), NFPA 13R (Standard for the Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height) and NFPA 13D (Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes) along with IRC Section P2904.

These codes and standards require that all fire sprinklers, escutcheons and cover plates be listed and installed according to that listing. The testing and listing process (of fire sprinklers, escutcheons and cover plates) does not take into account any additional field applied materials on the sprinkler, escutcheon and cover plate, such as: paint, caulk, drywall compound, and other construction materials. This prohibition is not only reiterated, but is enforced by NFPA 13 and NFPA 25 (Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems) as both of these standards require full replacement of the affected components when found. When a fire sprinkler is properly installed, the escutcheon and/or cover plate should adequately seal the penetration.

While fire sprinkler contractors and AHJ's are well versed on these requirements, they should spread the word on their jobsites to avoid jeopardizing life safety systems. Energy codes are new in a lot of areas of the country, so be aware of the following:

- NFPA 13, Section 6.2.6.2.2 and 6.2.6.4.4 along with NFPA 25, Section 5.2.1 prohibit caulk on fire sprinklers and require replacement when coated.
- Energy codes may or may not be in effect at the time of construction, but is common practice to caulk all gaps in building materials.
- · Speak to the designers, architects,

specification writers, painters, building owners and building maintenance before, during and after the construction about caulking fire sprinklers, escutcheons and cover plates.

- Existing buildings where NFPA 25 inspections are being performed may be updated, renovated or repaired inbetween inspections to obtain energy credits. Be on the lookout for newly caulked sprinklers.
- · Speak with fire sprinkler manufactur-

ers. Many have solutions to comply with these energy code requirements.

- Install fire sprinklers so the escutcheons and cover plates fit correctly against the wall or ceiling. Leaving loose escutcheons and gaping cover plates will encourage caulking or adhesives after leaving the site.
- Consider sidewall sprinklers. Interior sidewalls are not part of the building envelope, therefore exempt from air sealing. Implication

Lubrizol



RESOURCE CÉNTER

NFSA's New Hydraulics Handbook is Here!

The National Fire Sprinkler Association is proud to announce the release of The Hydraulics Handbook, an overhaul and update of a publication originally put out in the early 1990's. This new updated edition is a comprehensive discussion of everything having to do with the hydraulic calculation of sprinkler systems. There are three distinct parts to the new Handbook:

 Excerpts from the NFSA textbook Layout, Detail, and Calculation of Fire Sprinkler Systems that deal with hydraulics. These comprehensive chapters cover the methods and concepts involved with calculating a fire sprinkler system by hand or with a computer program. Each chapter ends with a series of questions to make sure that the user understood the concepts in the chapter.

2. A brief discussion of conducting hydraulic calculations from the perspective of a code enforcement official. This discussion is helpful for the plan review of calculations that have been submitted. A sprinkler technician can also use this information in spot checking the output from a computer program.

3. Friction loss tables. There are many different types of pipe and tube used in sprinkler systems. For each type of pipe, this book has a page with the friction loss per foot of pipe at a variety of different flows. Each page also contains the equivalent length of the fittings (tees, elbows, control valves, and check valves). These pages substitute for performing the Hazen-Williams friction loss calculation on a calculator and save time for people performing hydraulic calculations by hand or for people wanting to spot check calculations performed by a computer.

With almost 400 pages of text, this book is a <u>"must have"</u> for anybody that performs hydraulic calculations of fire sprinkler systems or performs plan review and approval of hydraulic calculations. **Order your copy at www.nfsa.org at the Resource Center or fill out and return the order form below.**

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ONFSP

The Hydraulics Handbox

ONFSA

The Hydraulics Handbook

My NFSA

MEMBERSHI

By John Kauffman

Columnist's note: This issue, keeping with the true intent for the membership column, I am happy to turn it over to NFSA South Central Area Director John Kauffman. Please feel free to contact me should you wish to take advantage of this members only opportunity. –Joanne Genadio

arlier this month I was on a trip to White Plains New York. to participate in the National Fire Sprinkler Association Long Range Planning Meeting. Although I serve on the Board of Directors of this Association, as well as several on-going committees, I am not on the Long Range Planning Committee. I was chosen to add balance to this group - a wonderful approach. Dennis Coleman our Chair and Russ Fleming our President wanted to make sure that all areas of the country and all types of contractors, manufacturers and suppliers were represented. Fantastic! Can you imagine if this were the approach of your City or State Government, The Federal Government, or maybe even your company?

My much delayed flights from Houston to Chicago and Chicago to White Plains gave me a great opportunity to reflect on my four years of service on this board, as well as my 36 years in this industry. There has been tremendous growth in the Fire Sprinkler Industry in my time. These gains have been written about and chronicled many times. Although one who greatly prefers to focus on the positive, my mind kept drifting to the negative. That being the conflict that seems to exist within and without the NFSA between a few contractors that seem hell bent on continuing a battle between Union and Merit Shop contractors. I have a very different vision of the NFSA.

The NFSA currently is comprised of approximately 60 percent union contractors and 40 percent Merit Shop. Surprised?

Keep reading. We also represent manufacturers, suppliers, friends of the industry and subscribers. Not only do we represent union and merit shop contractors and suppliers and manufacturers, they all serve on our Board of Directors. We are the ONLY all-inclusive fire sprinkler association in the nation. I do believe that earns us the right to call ourselves The Voice of the Fire Sprinkler Industry.

It seems many outside our Association, and a few inside, want to hide this diversity with claims that; "It's unfair to Union contractors because they pay more to be a member" and "we will never be able to grow this Association as long as we represent members in their labor negotiations." There are many other misguided comments about there being both a "Union" and a "Merit Shop" contractors association. In reality, what our nation has is a merit shop sprinkler contractors association (AFSA) and a fire sprinkler industrywide association (NFSA). I do not believe in divisive rhetoric, I for one am proud to serve on the board of an association that welcomes all members. In the early 1980's I served on the formation committee and served as the first Treasurer of the Texas Fire Sprinkler Contractors Association. We have never been associated with being a Union or Merit Shop organization, and I trust we never will. To represent an industry you have to represent the entire industry.

Yes, NFSA does have a group that represents Union contractors in their negotiations with organized labor. I am damn proud of this group, having served one term on the negotiating committee for the 669 contract (in a past career). I can tell you that the job is thankless, and quite honestly, is like "poking spaghetti in a wildcats behind" to quote an old friend from West Texas. None of the "legal eagles" in this group sit on the Board, as they are employees of the NFSA. It is but one service we provide our members. Yes we have training for contractors, for AHJ's, for architects, for code officials, and for anyone else that needs a little guidance. The Expert of the Day (technical support available to our members) pays for the cost of membership ten-fold. The EOD responds to over 2,000 requests per year. We have used them to help resolve several thorny issues over the past two years alone. Would you like to have members of the NFPA 13 committee on your payroll? You do, if you are a member. Would you like to have members of the NFPA 25 committee teaching about ITM? You do if you take advantage of it. Would you like to have engineers like Russ Fleming and Ken Isman working for you? As an NFSA member, you do. Would you like to be a part of the only ALL INCLUSIVE Fire Sprinkler Association? You are if you are a member. 🛈



President, Kauffman Company

John H. Kauffman III

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LAS VEGAS

PRIL 4-6

NFSA Annual Seminar and North American Fire Sprinkler Expo



This in from Mid-Atlantic Regional Manager Ray Lonabaugh: "Jay Livingston of Livingstone Fire Protection, Inc. in Hyattsville, Maryland forwarded us this picture of a realtor's sign in McHenry, Maryland. Unfortunately the sign is missing another line, "and maybe you'll regret it later."

NFSA Associate Director of Regional Operations-South, Wayne Waggoner (center) joins Jimmy and Jerry Key (I-r) of Key Fire Protection in Jackson, Tennessee at the Tennessee Titan Pre-Season game against the St. Louis Cardinals.



NOTES FROM THE FIRE SCENE



Pictured is Congressional Fire Services Institute (CFSI) Executive Director Bill Webb, joining me prior to the Nationals vs. Cardinals game on September 2nd. NFSA was proud to sponsor the CFSI "Day at the Ballpark" which honors America's fire service and raises money for CFSI activities throughout the year.



Pictured is Chief Adolf Zubia addressing the BCC, and here's his size-up of the progress made...

Notes from the Fire Scene...

write this update following a Building Codes Council (BCC) meeting held on August 29, 2012 that saw progress made in life safety for the state of South Carolina. The National Fire Sprinkler Association (NFSA) has been involved in the South Carolina Fire Sprinkler Coalition since its inception and has been happy to assist the Coalition when needs present themselves. While the actions taken were not the "grand slam home run" of life safety, progress was made with the compromise reached among the stakeholders.

An example of how NFSA is able to assist in Coalition efforts occurred in recent months, following the departure of Chief Adolf Zubia as State Fire Marshal on July 31, 2012. The Coalition recognized that they needed the chief to remain involved in some capacity to see the adoption of the 2012 IRC through. Chief Zubia agreed to work with NFSA's Public Fire Protection team to ensure that the BCC understood the importance of the code adoption and also the compromise that had been reached by the stakeholder groups. With Chief Zubia's insight, leadership, and knowledge of the process, we were able to make this important step forward. So that we may all better understand. I have asked Chief Zubia to share his perspective of the events that led up to the code adoption, as well as the reasons compromise was needed in order to move forward:

To me, this is a great example of how NFSA is able to serve its members and support the fire service. We acknowledge that local and state code adoptions are

best led by those involved in the fire service, and we applaud the South Carolina Fire Sprinkler Coalition and all fire service groups who worked to make this happen in the Palmetto state! It's an honor for us to be able to offer our support and help with educational outreach and resources when needed. This is an example of teamwork in action, both for NFSA members and fire service leaders. We are hopeful that other states will follow in adopting the codes that provide the best protection for citizens. We believe that by working together we all win and most importantly, quality of life is improved for all. I am reminded of my hometown of Pleasant View, Tennessee and our proactive adoption of a fire sprinkler ordinance in 2001. As each community, each State makes the policy choices that determine the safety of the new buildings constructed, we must remember that a spirit of understanding and cooperation is always the most desired and the one that impacts the citizens is the most positive way.

"The South Carolina code compromise has made ONE big step forward!

During the South Carolina Building Codes Council (BCC) Aug. 29, 2012 meeting, a critical code adoption vote took place to unanimously approve the adoption of the 2012 International Codes. The action taken by the Council follows a hotly debated and contested issue that occurred during a prior BCC meeting held May 23, 2012 to approve the same code adoption process.

The main issue in contention, during the May meeting, concerned the 2012 International Residential Code's (IRC) fire sprinkler requirements in one and two family dwellings. As is nationally well known, residential occupancies are the number one occupancy groups that suffer a loss of life during a fire event. However, after the BCC meeting in May, the code adoption process for South Carolina stalled when the BCC members could not obtain the 2/3 majority vote required to move forward with the code adoption process for any of the 2012 codes. When the group met to reconsider this issue during the August meeting, it was expected that South Carolina was facing a strong likelihood that the code adoption process would be further delayed. It should be noted that the majority of the South Carolina is currently enforcing the 2006 ICC codes.

Prior to the August meeting, the South Carolina Fire Sprinkler Coalition (with significant representation from the fire service) coordinated with the homebuilders and state's building officials leadership to develop and support a code modification which would move forward the code adop-

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Director, Public Fire Protection

Vickie Pritchett

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tion. The proposed modification removes the sprinkler requirement for one- and two-family dwellings, but included townhomes. In addition, in lieu of a sprinkler system, townhomes have the option to provide a common two-hour fire-resistant wall assembly separation.

When this issue was brought before the BCC during the August meeting, it was unanimously approved (excluding the chairman who elected not to vote) and moves forward for final approval by the S.C. Legislature with a proposed implementation date of July 1, 2013.

How is this code compromise a step forward? There are four items to consider. First, understanding the current political and economical environment affecting the national and local levels, it was anticipated that the code adoption process would have been challenged legislatively and the BCC would have been directed by the South Carolina Legislature to reconsider the sprinkler requirement for one- and two-family dwellings. The other option, worse than reconsideration, was doing what many other states have experienced, that being the prohibition of fire sprinklers in one- and two-family dwellings.

Thus, a positive and proactive step was taken to provide a compromise which was ultimately approved by the BCC. Although the process still requires publication and approval by legislators, there is anticipated hope that the process is moving forward for a July 2013 implementation.

Secondly, the compromise allows the process to continue with the strong likelihood of the 2012 codes being adopted and reducing the likelihood that local jurisdictions are going to be negatively impacted in the near future by the Building Code Effectiveness Grading Schedule (BCEGS). The BCEGS assesses the building codes in effect to include the edition and how each jurisdiction enforces its codes. The idea is for each jurisdiction to adopt "up-to-date" codes. This allows a positive impact on insurance rates and to implement code provisions that provide enhanced protection from minimum damage.



Thirdly, the compromise allows all the parties impacted by the sprinkler requirements to address any issues needing further clarification. These include: addressing all issues impacting the water purveyors, sprinkler installer licensing and permitting requirements, specifically addressing the future role of plumbers, and allowing for the opportunity to get a "true" cost of installation based on a significant number of installations statewide.

Lastly, this modification allows additional time and opportunity to further educate and train stakeholders to include, sprinkler installers, residential builders, fire service and code members, and policy makers. As this process moves forward, in an effort to improve the safety of the citizens of South Carolina and emergency responders, stakeholders will continue to work together and continue to support the installation of sprinkler systems in townhomes.

Although not a complete victory, it is ONE big step in the right direction on the path to safer homes and a great start and significant step for the Palmetto State."

- Chief Adolf Zubia (retired) Former South Carolina State Fire Marshal

I also asked the current South Carolina State Fire Marshal Shane Ray to share with us his size-up of the events that occurred and what to expect next. You will remember that Chief Ray served as Director of Public Fire Protection for NFSA prior to moving to South Carolina in the Fall of 2011. Chief Ray's leadership helped to provide a seamless transition between him and Chief Zubia with a focus on the citizens of South Carolina and their safety.

"Our work now begins, that work being to partner with all stakeholders to improve fire and life safety across the state. What will the next step be? What will we improve for 2015, 2018? Simply conducting education isn't enough. We have to have dialogue with all involved in the process in order to improve it. This is not just an issue of discussion. Discussion occurs during the hearings, progress is made with dialogue and understanding, not discussion and debate alone. Partnerships are the key and we will enhance the ones established and create new ones with the intent being to find common ground that is in the best interest of those we serve, the citizens and visitors of this great state."

> - Chief Shane Ray South Carolina State Fire Marshal

Until next time, the Public Fire Protection team will be engaged and involved across the nation, providing assistance and creating educational & dialogue opportunities among the respective groups when needed. Remember, our work does make a difference. Lives are saved when we find ways to improve the safety of buildings constructed. Fire Sprinklers Save Lives!

NORTHEAST REGION

DOMINICK KASMAUSKAS Associate Director of Regional Operations - North



Sprinkler Save at Apartment Building in Orono, Maine The following was

submitted by Henry Vaughan, Fire Marshal for the Town of Orono, Maine:

Workers were soldering pipes in a 12unit three-floor apartment building when they unknowingly set a wall void on fire. After some time, a project supervisor heard water running and went to see what was going on. He found a single sprinkler had activated and extinguished the fire.

The apartment building is one of 20 being built in the same development, and it was still under construction. There was no power and the fire alarm was not in service yet. The building is valued at \$591,000 and thanks to the fire sprinkler system, only had \$800 in damage.

Sprinkler Save at Industrial Facility in Lebanon, New Hampshire

The following was sumitted by Jon Paul, Inspector for the Bureau of Fire Prevention and Life Safety in Lebanon, New Hampshire:

A single sprinkler extinguished a fire in the basement of a 60,000 square foot wood frameindustrial facility in Lebanon, New Hampshire. The cause of the fire was accidental. Welding operations ignited nearby combustible storage.

The fire department was alerted to the fire by transmission of the buildings fire alarm system. The building is protected by a sprinkler system that is monitored by a fire alarm system. Upon arrival, fire crews confirmed the fire had been extinguished by the sprinkler system. Total dollar loss is estimated at \$1,200.

Dominick Kasmauskas is the NFSA's Associate Director of Regional Operations-North and Regional Manager for the Northeast Region. He can be reached at Kasmauskas@nfsa.org or1436 Altamont Ave. Suite 147 Rotterdam, New York 12303, Phone 518.937.6589, Fax 518.836.0210.

MID-ATLANTIC

RAY LONABAUGH Regional Manager



New Jersey Fire Sprinkler Advisory Board Aids American Legion Post 136 in Lodi, New Jersey

An article in the Star Ledger Newspaper on August 20, 2012 described the problems the Joseph M. Lane American Legion Post 136 in Lodi, New Jersey is experiencing with an uncompleted automatic fire sprinkler system that is preventing the Post from receiving a certificate of occupancy.

The American Legion Post's original building was totally destroyed by fire on December 14, 2005. Since the fire, the group has been working to rebuild. Unfortunately, their insurance only covers about 50% of rebuilding costs. Their new building is complete except for the automatic fire sprinkler system. A final inspection of the sprinkler system found the installation was not completed. According to the newspaper article the final payment for the installation has been paid but the job is not finished, thus preventing the issuance of an occupancy certificate and leaving the building unprotected.

On August 29th members from the New Jersey Fire Sprinkler Advisory Board (NJFSAB) along with Sprinkler Fitters Local 696, Charlie Hamilton, President of Northeast Fire Protection and NJFSAB Executive Director Dave Kurasz, met with Legion Officers to see what can be done to resolve the fire sprinkler issue.

Dave Kurasz reported that Legion Post is out of funds with no way to proceed with the project. Dave said, "We are their last hope."

There are design problems with the system and many components are missing. Charlie Hamilton asked for, and was given, a copy of the original system plans and will be reviewing them to see what can be done to complete the system. Dave is working on setting up a meeting with the legion officers, Local 696 and Charlie

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Hamilton, along with the local fire subcode official in Lodi to assure proposed actions taken will meet their requirements. There are a lot of issues, including legal liabilities and current ownership of the uncompleted system, that need to be addressed.

Raymond W. Lonabaugh is the NFSA Regional Manager for the Mid Atlantic Region. He can be reached at: lonabaugh@ nfsa.org or P.O. Box 126, Ridley Park, Pennsylvania, 19078. Phone: 610.521.4768

SOUTHEAST REGION

WAYNE WAGGONER Associate Director of Regional Operations - South



Rutherford County, Tennessee Officials to Look at Need for

Fire Codes

Citing the lack of regulations in Rutherford County, members of the Public Safety Committee have decided to begin studying the need for adopting portions of the International Fire Code.

The codes will also help lower insurance premiums because new commercial and residential developments will have the proper infrastructure that is needed to combat fires, he said.

The regulations are a part of standards set by the International Code Council, a nonprofit that has long been the go-to organization for government bodies in the process of developing standards for workplace, school and residential safety guidelines.

If approved by the Rutherford County Commission, new developments and residential subdivisions would be required to have adequate water flow and pressure.

The idea to study fire code regulations comes only a few months after the Tennessee General Assembly passed a bill, co-sponsored by Republican Sen. Jim Tracy, of Shelbyville, that prohibits how local governments are allowed to pass requirements for residential sprinkler systems in new developments. Gov. Bill Haslam signed the bill into law before the 107th General Assembly adjourned in April, much to the chagrin of several public safety groups, including the Tennessee Fire Service Coalition.

Specifically, the law states governing bodies may only adopt mandatory sprinkler requirements for one-family and twofamily homes by ordinance or resolution upon a two-thirds vote after at least two readings at two separate meetings.

Wayne Waggoner is the NFSA Associate Director of Regional Operations - South. He can be reached at Waggoner@nfsa. org or PO Box 9, Andersonville, Tennessee 27705, Phone 865.755.2956, Fax 865.381.0597.

FLORIDA & PUERTO RICO LORRELL BUSH

Regional Manager



Sprinkler Save at Royal Palm Beach Restaurant A sprinkler sys-

tem extinguished

an early-morning blaze inside an Italian restaurant in Royal Palm Beach, Florida in September.

Firefighters said the flames set off an automatic sprinkler and alarm system. Investigators said the sprinkler system helped extinguish the fire and kept it from spreading throughout the restaurant and to nearby businesses.

The restaurant suffered moderate smoke damage throughout, firefighters said. No injuries were reported.

Great Reviews from the NICET Alternative Course and Test

The Florida Fire Sprinkler Association - a chapter of NFSA held the first NICET Alternative course for "Water-based In-spector I and II" in Boca Raton, Florida on August 28 - 30, 2012.

Participants responded to the new course with comments such as, "Best class I've ever attended for teaching how to navigate the standard!" Overwhelmingly, participants said they felt more knowledgeable after this course than any others previously taken.

On August 31, 2012, the Academy Exams administered the first "Inspector I and II" exams in the state of Florida.

Lorrell Bush is the NFSA Regional Manager for the Florida Region. She can be reached at bush@nfsa.org or 2025 Droylsden Lane, Eustis, FL 32726. Phone: 352.589.8402 Cell: 954.275.8487 Fax: 561.327.6366

GREAT LAKES REGION

RON BROWN Regional Manager



Kentucky Building Commission Acts on Code Adoption At the August 17th

meeting of the

Kentucky Housing, Building and Construction Commission the adoption of the Kentucky International Building Code (based upon the 2012 IBC) with all R 1-4 sprinkler provisions included was adopted. If the document remains on course the Rules will be filed on October 1 and then noticed for public comment in November. If all goes as scheduled, the code will go to the Legislative Review Committee in January and would likely be effective July 1, 2013. The Residential Code Committee recommended adoption of the IRC without the sprinkler requirements (as expected). The Kentucky Fire Service agreed to this arrangement as a compromise to get the full fire sprinkler provision in the Kentucky Building Code as mentioned above. The Residential Fire Sprinkler Task Group report now goes to the Residential Dwelling Committee (where it is sure to be approved) and then back to the Commission in November (where it is also sure to be approved). Once approved it will then be noticed for public comment and then to the Legislative Review Committee for consideration. This time table would likely mean the Residential Construction Code would most likely also be implemented sometime in the second guarter of 2013.

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West Virginia and Michigan Working on Commercial and Residential Code Adoptions

The West Virginia Fire Commission has adopted the 2012 IBC absent the energy code and it has re-adopted the 2009 IRC as the residential building codes for the state of West Virginia. The re-adoption of the 2009 IRC means the residential fire sprinkler requirement is back in the code for now. A public comment period for the codes has now passed and the code is now in the hands of the WV Legislature. The Homebuilders have indicated opposition to the residential fire sprinkler requirement and are likely working the Legislature to have it removed.

The state of Michigan has begun the committee review process for the adoption of the 2012 IBC and IRC. The state delayed action on the 2012 codes because the Code Commission was anticipating passage of Michigan HB 4561 which would have allowed the state to skip a code cycle as far as adoption is concerned. It now appears 4561 is dead and the Code Commission must now move forward with the 2012 review and adoption process.

Ron Brown is the NFSA Regional Manager for the Great Lakes Region. He can be reached at Brown@nfsa.org or 1615 Cypress Spring Drive, Fort Wayne, Indiana 46814, Phone 845.661.6534; Fax 260.625.4478.





Recent Fire in Illinois Shows Value of Home **Fire Sprinkler** Requirement A fire in a six

year-old Glen Ellyn, Illinois home proved the success of the community's home fire sprinkler ordinance passed for all new homes ten years ago. According to the Northern Illinois Fire Sprinkler Advisory Board (NIFSAB) the event marked the first home fire sprinkler activation within

Glen Ellyn since the provision was enacted in March 2002 to protect residents, their homes and the village's volunteer firefighters. At the time, Glen Ellyn was only the eleventh community in Illinois to adopt such an ordinance, providing a model for many other communities to follow. The village currently stands as one of 79 jurisdictions in Illinois that require residential fire sprinklers.

By contrast, media covered a June fire that gutted a single-family home in the same community. According to a news report, firefighters worked for three hours to extinguish the flames and the home had extensive damage. There were no fire sprinklers in the home.

Bob Kleinheinz is the NFSA Regional Manager for the North Central Region. He can be reached at Kleinheinz@nfsa.org or 509 Dawes Street, Libertyville, Illinois 60048, Phone 914.671.1975.

SOUTH CENTRAL REGION CHRIS GAUT

Regional Manager



Cedar Rapids Fire Department to Inform Public **About Fire** Sprinkler

Systems

The Cedar Rapids, Iowa Fire Department was awarded \$1,000 from the Home Fire Sprinkler Coalition (HFSC) to help dispel myths about home fire sprinkler technology. The stipend will be used toward placing HFSC public service announcements with local media.

The public service announcements will feature a burglar trying to clear a room full of people by setting off a fire sprinkler system. The burglar fails and finds that smoke will not set off a fire sprinkler and that only the fire sprinkler above a fire will activate, not the entire system. 80 percent of all fire deaths occur in the home, and the single most effective way to prevent fire-related deaths is the installation of residential fire sprinklers. Having smoke alarms and residential fire sprinklers cut





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the risk of dying in a home fire by 82 percent compared to having neither.

Funding through a Fire Prevention and Safety Grant, HFSC selected the Cedar Rapids Fire Department and 49 other fire departments nationwide that participate in the "Build for Life" fire department program to receive the stipend. "Build for Life" fire departments are "committed to making home fire sprinklers a focus of their public education efforts and advocacy."

Chris Gaut is the NFSA Regional Manager for the South Central Region. He can be reached at gaut@nfsa.org or NFSA Central Region Office, 237 E. Fifth St. #135, Eureka, MO 63025, Phone 636.692.8206, Fax 636.410.7700.

GREAT PLAINS REGION

TBA



Glenwood Springs, Colorado City Council Votes to Remove Home Sprinkler Requirement

In mid-October, the Glenwood Springs, Colorado City Council voted 4-3 to remove a section of the 2009 residential building code that would have required sprinkler systems for fire protection in new homes starting in 2013.

The city of Glenwood Springs initially adopted the requirement for home sprinkler systems in all newly constructed single-family and duplex units as part of the uniform 2009 International Residential Code (IRC). However, the requirement was not set to take effect until 2013. Cities and counties had until the end of the year to remove the provision before it automatically kicked in.

The requirement was supported by the Glenwood Springs Fire Department, as well as the city's appointed Building Board of Appeals.

Dominick Kasmauskas is the NFSA's As-

sociate Director of Regional Operations-North. He can be reached at Kasmauskas@nfsa.org or1436 Altamont Ave. Suite 147 Rotterdam, New York 12303, Phone 518.937.6589, Fax 518.836.0210.

SOUTHWEST REGION BRUCE LECAIR Regional Manager



Arizona Fire Services Institute Officially Announces opposition to HB 2153.

HB 2153 prohibits a city, town or county from adopting an ordinance that mandates the installation of fire sprinklers in single family homes.

Arizona Fire Services Institute (AFSI) serves the State's five fire service organizations by providing one voice for Arizona's fire services, including the Arizona Fire Chiefs Association, and as a forum to improve the fire and emergency services throughout the State of Arizona.

Following is a letter AFSI sent to their local representatives:

Dear Representative,

The Arizona Fire Service Institute (AFSI) serves the State's five fire service organizations by providing one voice for Arizona's fire services and as a forum to improve the fire and emergency services throughout the State of Arizona. We are expressing our deep concerns and solid opposition to the measures outlined in HB 2153.

Arizona fire service organizations have a genuine and vested interest in saving the public's lives, property and firefighter lives as well. We have worked diligently for years with numerous local, national and international groups to develop and make recommendations to local and national model codes that will provide increased opportunities to protect our community's valuable assets. A major challenge has been to effectively address the numerous changes in lightweight construction techniques and the challenges of faster and hotter fires resulting from the increased fire loads that are common in today's commercial and single-family residential structures.

These types of important safety and policy decisions are best made at a local community level with additional debates occurring through the national consensus process. Our membership believes that it is dangerous for the legislature to attempt to undo the national consensus code development process which is factbased and data-driven to best protect our citizens and their property.

FUTURE NFSA ANNUAL SEMINAR SCHEDULE

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Caesar's Palace Las Vegas, Nevada April 4 - 6, 2013 NFSA Annual Seminar Atlantis, Bahamas May 8 - 10, 2014



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Hilton Bonnet Creek Resort Orlando, Florida April 30 -May 2, 2015

This bill will severely interfere with the ability of local jurisdictions to adopt updated codes and standards appropriate to providing the highest probabilities that endangered occupants can best escape death from smoke and fire. Municipalities and rural communities both would be hurt by this legislation in providing public safety needs to the citizens we serve.

The AFSI strongly urges swift action to remove this potentially dangerous legislation from consideration. This is a major issue and concern for our members and we would embrace the opportunity to meet with any legislative member on the substantial life safety benefits that fire protection systems provide for our citizens, firefighters and communities.

> Sincerely, Jeff Piechura Tim Hill Co-Chairs Arizona Fire Service Institute

Bruce Lecair is the NFSA Regional Manager for the Southwest Region. He can be reached at lecair@nfsa.org or Phone: 951.277.3517, Fax: 951.277.3199.

NORTHWEST REGION

SUZANNE MAYR

Regional Manager



Sprinkler Keeps Fire from Spreading at Senior Living Facility A fire in a clothes

dryer at a senior living facility north of Lynnwood, Washington caused minimal damage thanks to a sprinkler that kept flames in check until firefighters arrived. The fire was reported at 3:25 a.m. in the basement of the four-story, 147-unit Chateau Pacific Senior Living community. Dispatchers received notification of the fire from the facility's automatic alarm system.

Firefighters from Snohomish County Fire District 1 responded and found a haze of smoke in the laundry room. One sprinkler had been activated above a smoldering gas-operated commercial clothes dryer. Firefighters were able to use a fire extinguisher to douse the small amount of fire that remained.

"A fire like this at a time of the morning when most residents are sleeping could have resulted in tragedy, but one sprinkler was able to keep the fire contained to the clothes dryer," said Leslie Hynes, public information officer for Snohomish County Fire District 1. "This is an excellent example of how sprinklers can react quickly to save lives and reduce property damage."

Fire and water damage is estimated at \$6,000. No one was injured. An investigator from the Snohomish County Fire Marshal's Office determined the fire was most likely started by a plastic item that melted and ignited inside the dryer after accidentally getting mixed in with a load of napkins.

Sprinkler Limits Apartment Fire Damage

Thanks to a sprinkler, a cooking fire at an apartment south of Everett, Washington was extinguished before it could cause major damage. One sprinkler in the kitchen activated and quickly extinguished the fire. Damage is estimated at \$5,000.

Snohomish County Fire District 1 crews responded and made sure there were no hidden hot spots in the apartment. Firefighters also evaluated one resident, who was exposed to smoke. He did not require medical treatment and there were no injuries. The Snohomish County Fire Marshal's Office investigated the fire and determined it was started by grease that ignited in a pan on the stovetop.

"This is an excellent example of how sprinklers can reduce property damage from fires and save lives. The sprinkler system reacted so quickly, it dramatically reduced the heat, flames, and smoke," said Leslie Hynes, public information officer for Snohomish County Fire District 1.

Source: Snohomish Fire District 1 Suzanne Mayr is the NFSA Regional Manager for the Northwest Region. She can be contacted at mayr@nfsa.org or 3411 North 19th St. Tacoma, Washington 98466, phone: 253.208.8467. **①**

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HO NEWS

SQ 2012 Buyers Guide Wins MarCom Gold Award for Excellence

For three years running, SQ magazine's Buyers Guide has been awarded the MarCom Gold Award for Excellence by the Association of Marketing and



Communications Professionals. In being named a 2012 Gold Award winner, SQ's Buyers Guide was judged to exceed the high standards of the communications industry in terms

of creativity and talent. Only 18% of entrants are named Gold Award winners. We wish to congratulate all who contribute, edit, proofread, advertise, design and print SQ. We are proud of all your hard work and the excellent results you obtain issue after issue. Thanks to you all!

2013 Buyer's Guide Information Forms need to be Filled Out by SAM & Professional Members!

This year, SAM and Professional Members must fill out and submit the 2013 Buyer's Guide info form online. The forms are accessible only after the member logs into their account at the NFSA website, www.nfsa.org. Once logged in, click on the "advertise" link to the right. Please be sure to select the proper form for your membership type. Our Buyer's Guide issue this year is March/April so <u>please get</u> <u>those forms completed by December 31,</u> 2012.



NFSA is pleased to announce that **Mohanna Sales Associates** of Plano, Texas will be taking over advertising sales for the Association.

The more non-dues revenue we generate, the more we can do for our members. We know that Mohanna will help us reach this goal.

Please take a look at the 2013 NFSA media kit, at: http://bit.ly/nfsamk13

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NFSA'S ANNUAL SEMINAR AND NORTH AMERICAN FIRE SPRINKLER EXPO[™] - CAESAR'S PALACE, LAS VEGAS



2013 REGISTRATION WILL BE CONDUCTED ONLINE AT WWW.NFSA.ORG

DON'T MISS THE OPPORTUNITY TO LISTEN TO AN INDUSTRY EXPERT IN FIRE PROTECTION INDUSTRY METRICS.

Greg Coggiano is no stranger to the fire sprinkler industry. In 2008 and 2009 he presented workshops at NFSA's annual seminars on the topic of how a fire sprinkler contractor business is valuated. Then in 2011 at NFSA's Annual Seminar in Baltimore, Maryland, he provided a fire sprinkler industry-targeted economic address.

In the September/October 2012 issue of **SQ**, he contributed an article entitled, "Apparent Recessionary Bottom Reached in 2011; Expectations for 2012 and 2013".

As an expert in fire protection industry metrics, he is uniquely qualified to deliver next year's Economic Outlook. It's a presentation that every single fire sprinkler contractor can't afford to miss!



"Hello, I'm Greg Coggiano. If you are a fire sprinkler contractor, you won't want to miss my presentation at NFSA's Annual Seminar and North American Fire Sprinkler Expo[™] in Las Vegas. I look forward to seeing you there."

A NOTE ABOUT THE AUTHOR:

Greg Coggiano is Managing Director, CB Partners LLC. CB Partners LLC represents buyers and sellers of businesses, performs market analysis and market studies, and values businesses in the Fire Protection Contracting industry and others. He is familiar with the focus and objectives of most of the companies and institutions that have interest in buying Fire Protection Contractors. Recently, he has completed business sales and valuations, market research, seminars and workshops related to Fire Protection Contractor business sales and valuation for members of the National Fire Sprinkler Association. Fire Protection Contracting has been a focus since early 2006. CB Partners LLC is a member of the NFSA.

PEOPLE

NFPA Appoints Gary Honold as Northwest Regional Director

The National Fire Protection Association (NFPA) has named **Gary Honold** as the regional director for the northwest region. Honold will focus on improving fire, building, and life safety in his region by working with state and local authorities, to promote NFPA services and the adoption of NFPA codes and standards in nine states: Alaska, Idaho, Montana, Nebraska, N. Dakota, Oregon, S. Dakota, Washington, and Wyoming.

In addition, he will also support research and public education, and participate in other activities related to fire safety that affect his region. Honold brings more than 20 years of fire service experience to NFPA. Prior to joining NFPA in this role, he recently retired as captain of the Missoula Fire Department in Montana where he rose through the ranks. He had also been working as an NFPA public education advisor since the beginning of 2012. A graduate of the South Carolina Fire Fighting Academy, Honold continued his training and education on fire-service related topics by completing several courses at the National Fire Academy. He is a Certified Fire Protection Specialist and an Emergency Medical Technician.

SPRINKLING OF NEWS

Viking Introduces New Flexible Sprinkler Connections

Viking Corporation is pleased to introduce a new cULus Listed flexible sprinkler connection. The new Model FSC-25U is a complete assembly that provides a faster, easier installation of sprinklers in suspended tile ceilings, when compared to hard-piped sprinkler drops. Viking's Model FSC-25U also offers generous amounts of lateral and vertical adjustment for precisely locating sprinklers in "center-oftile" installations.

The new flexible sprinkler connection features a redesigned, factory-assembled attachment bracket that is ready to install out of the box, without additional loose parts. The product's innovative "collar-style" center bracket locates and secures the sprinkler in the required position within the ceiling grid, while also providing ample vertical adjustment to accommodate flush, semi-recessed, and concealed-style sprinklers. The Model FSC-25U uses a corrugated, stainless steel flexible hose (unbraided) and is rated to a maximum working pressure of 200 psi (14 bar).

Viking's new flexible sprinkler connections, which are packaged five (5) per box, are available in standard lengths of $39^{-3}/_{8}$ " (1000mm) and 59" (1500mm) with either a $1/_{2}$ " or $3/_{4}$ " NPT sprinkler connection. To support the launch of this

exciting new product, Viking has created a 3D installation animation and dedicated mobile web site. The new site, along with the animation, can be accessed by visiting the following URL: http://vikinggroup. mobi/p/101119 or by scanning the QR code below.



Potter Electric Expands Social Media to Increase Product Awareness

Potter Electric Signal Company, LLC announces an expansion of its social media reach with a strong presence in Facebook, Twitter, LinkedIn, Google+, and YouTube.

With the addition of social media to Potter's marketing efforts, they will exponentially increase and build upon their solid customer base.

Potter plans to continue to evolve its digital media presence through additional options for customers to stay updated on the latest news from the company as well as continued updates to its website allowing for easier access to the content that matters mos

Tyco Introduces New Model Esfr-17 Dry-Type Pendent Sprinkler

Tyco Fire Protection Products intro-

duces the new Model ESFR-17 Dry-Type Pendent Sprinkler for box-in-box cold storage facilities. The Model ESFR-17 Dry-Type Sprinkler brings Early Suppression Fast Response (ESFR) fire protection performance to box-in-box cold storage, protecting from class I commodities to cartoned unexpanded plastic in rack storage arrangements with ceiling heights up to and including 40 ft (12,2 m), all with the assurance of a 10 year limited warranty.

In many instances, warehouse managers and owners are faced with the prospect of installing a double interlock pre-action system with in-rack sprinklers and or anti-freeze systems to protect boxin-box cold storage facilities. Box-in-box freezers are often built from insulated panels assembled together, which provide little or no structural support for system piping, making it even more challenging to design a fire sprinkler system to protect these facilities.

The Model ESFR-17 Dry-Type Sprinkler has a K-Factor of 16.8 (242) with a minimum required pressure 30% lower than a sprinkler with a K-Factor of 14.0 (200). The lower pressure allows system designers the possibility to downsize the pipe sizes and fire pump, delivering even more savings in material and labor compared to other ESFR dry pendent sprinklers on the market today. To learn more about the Model ESFR-17 Dry-Type Pendent Sprinkler, go to www. Tyco-Fire.com.

Anvil[®] International Launches Cost-Saving, Single-Solution HVAC Hook-Up Kits

Anvil International announced a new offering of an innovative package system for HVAC hook-ups. Gruvlok[®] KNX series Hydronic Hook-Up Kits integrate the typical 54 components required to connect piping to hydronic heating or chiller system equipment into one pre-engineered, pre-assembled and pre-tested kit of only four components – saving up to 80% on labor compared to traditional connection methods.

Gruvlok KNX series Hydronic Hook-Up Kits offer contractors the ability to use one job-specific kit instead of purchasing various parts from different suppliers, resulting in less labor and less risk of using the wrong product on the job. These kits ensure the correct components are installed at the correct location in the system. On average, each kit saves 3.5 hours of labor, which equates to approximately \$200 in cost savings per kit. The kits provide contactors with better options for controlling the cost on the job and virtually eliminate engineering / compatibility verification effort and issues.

The kits are available in connection sizes from 1/2" to 2" and are configured to the system designer's specifications, streamlining the ordering process for contractors. Each kit is tested, bagged, tagged, boxed and labeled at the Anvil International facility prior to shipment. Anvil is an industry leader in "bag and tag" delivery services, which allow for better management of labor and equipment on job sites.

Gruvlok KNX series Hydronic Hook-Up Kits can integrate into a wide variety of projects, including welded systems.

For more information about the Gruvlok

KNX series Hydronic Hook-Up Kits, please contact Anvil International.

Potter Electric Streamlines Productivity with New ERP System

Potter Electric Signal Company, LLC of St. Louis, Missouri, announces the implementation of a new ERP software system called Epicor. With the integration of Epicor at Potter, they now have the flexibility of a more robust system that will help maintain and grow their business. The possibilities for endless customizations will allow Potter to adapt to current and future customer needs.

Epicor utilizes SOA or Service Oriented Architecture as "an approach to developing enterprise software applications in such a way that software processes are broken down into services which are then made available and discoverable on a network." This feature alone will save Potter precious time and money with future customizations and upgrades.



Zahr winknis ine protection product package provides the building ownet with complete fire protection solutions. Our backflow prevention products assure consistent test results due to our fully approved, technologically advanced compound checks[®] designed to deliver lower overall pressure loss/drop without sacrificing Zurn Wilkins industry leading lowest life-cycle costs. Our Pressure-Tru[™] Automatic Control Valve and Fire Valve line controls pressure to ensure compliance to fire sprinkler code requirements. The new Stainess Steel bodied Double Check Backflow Preventer is designed for years of trouble-free performance. When you absolutely need first-pass performance to fire sprinkler codes and annual testing, there's only one name to consider. Zurn Wilkins. For your fire protection needs, give us a call. We'll listen. Lives depend upon it.



RESOURCE CÉNTER

2nd Edition of Layout, Detailing and Calculation of Fire Sprinkler Systems



The NFSA announces the publication of the 2nd Edition of its popular textbook, Layout, Detailing and Calculation of Fire Sprinkler Systems. This newly revised hardcover textbook has been updated to reference the 2007 and 2010 editions of NFPA 13 with more examples and student exercises and new chapters on contract issues and stocklisting. This text remains the most complete book ever written for the fire sprinkler engineering technician and it's available now!

Written by the NFSA Engineering Department staff and edited by Kenneth E. Isman, P.E., Vice President of Engineering, this text covers every aspect of determining the necessary details for a fire sprinkler system including: hazard classifications, sprinkler spacing, hanger and brace requirements, hydraulic calculations, water supplies, pumps and tanks. The text also contains a review of basic math and physical science that is helpful in understanding the scientific principles behind the requirements that need to be followed.

This text makes an excellent self-study guide for the NICET Automatic Sprinkler Layout and Detail certification program and covers all of the work elements necessary to achieve Level 2 certification and many of the elements needed to achieve Level 3 and Level 4 certification. Even if you are not studying for a NICET exam, this text makes an excellent self-study guide for anyone wanting to know more about fire sprinkler systems.

The text retails for \$95 (plus S&H) to members of the NFSA and \$145 for nonmembers (plus S&H). However, as an extra added bonus, to reward the people that purchased the first edition of the book, if you clip Ken Isman's picture out of the 1st Edition back cover flap and send it back to us with your order (mail orders only, no fax orders for this offer), then you can take another \$10 off the price of a single book (\$70 + S&H for members and \$120 for non-members). To get your book, fill out the following form and return it with your payment.

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