



SQ



2013 MarCom Gold Award Winner



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- Residential Backflow Prevention for One- and Two-Family Dwellings, pg. 45
- Separating Accessory Occupancies of NFPA 13R within the IBC, pg. 21
- State of the Art Technology, pg. 15

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ON THE COVER

NFSA's own Buddy Dewar receives the 2015 Golden Sprinkler Award from Chair Larry Thau.



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SQ (ISSN 1050-4958) (USPS 524-010) is published six times a year (February - April - June - August - October - December) by the National Fire Sprinkler Association, Inc., 40 Jon Barrett Road, Patterson, NY 12563.

Telephone: (845) 878-4200. Subscription free to all NFSA members and member companies.

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Second-Class postage paid at Mahopac, NY.

POSTMASTER: Send address changes to:
NFSA, 40 Jon Barrett Road, Patterson, NY 12563



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Obstructions to Standard Spray and
Extended Coverage Sprinklers
ONLINE

August 26, 2015

Pumps for Fire Protection
BURBANK, CALIFORNIA

August 27, 2015

Rough & Final Inspections of Fire Sprinkler
Systems
BURBANK, CALIFORNIA

September 9, 2015

Rough & Final Inspections of Fire Sprinkler
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IOWA CITY, IOWA

September 10, 2015

Rough & Final Inspections of Fire Sprinkler
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CONCORD, NEW HAMPSHIRE

September 15, 2015

NFPA 13, 13R, 13D & 14 Update 2013
EL CERRITO, CALIFORNIA

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Obstructions to Residential Sprinklers
ONLINE

September 15-16, 2015

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Systems
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September 17, 2015

Advanced Hydraulics
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September 22-23, 2015

Sprinkler System Plan Review
READING, PENNSYLVANIA

September 24, 2015

Rough & Final Inspections of Fire Sprinkler
Systems
READING, PENNSYLVANIA

September 23-24, 2015

ITM: Navigating through the Liability
Minefield
NASHUA, NEW HAMPSHIRE

September 30, 2015

Rough & Final Inspections of Fire Sprinkler
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Fire Service Mains & Their Appurtenances
WILLOUGHBY, OHIO

October 20, 2015

Obstructions to ESFR and CMSA Sprinklers
ONLINE

October 20-21, 2015

Sprinkler System Plan Review
BREA, CALIFORNIA

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Systems
BILLERICA, MASSACHUSETTS

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Systems
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November 3, 2015

Understanding, Applying and Enforcing
NFPA 25
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Pumps for Fire Protection
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Kent Mezaros NFSA Vice Chair, Shane Ray NFSA President and Larry Thau, NFSA Chairman of the Board

Moving Forward Together

Shane Ray



It is very humbling to be your NFSA President and I am very grateful for the opportunity to serve and lead such a great association with such a rich history.

I use a daily devotional by John Maxwell titled, A Leader's Heart. The headline on the day I gave my acceptance speech at the North American Fire Sprinkler Expo® in Orlando, Florida focused on the point that to communicate we must listen! The question for the day was, How well do you listen to others? This question resonated with me and I pledge to listen and be responsive! I want you to know that I seek your input and insights. I value YOU and I want you to value your NFSA membership and all the value it has brought, should bring and will bring.

John D. Rockefeller Jr. said, *"I believe that every right implies a responsibility; every opportunity an obligation; every possession, a duty."*

It is our duty to serve in a proactive, yet responsive manner. It is our duty to lead progressively with the vision of fire sprinkler systems that are properly designed, installed, inspected, and maintained from homes to high-rises! The fulfillment of our mission, *"To protect lives and property from fire through the widespread acceptance of the fire sprinkler concept,"* will not only save lives and property, it will be profitable for all those we serve!

To measure this and ensure we show you value, we will produce measures that matter and we will have data from which to make decisions! We want to create a more fire safe world and in doing that you will ship more fire sprinklers, increase installation hours, and increase overall sales or supplies and services.

At the direction of our Chair and Board of Directors we will work to heighten the awareness of the importance of fire sprinkler

systems from homes to high-rise and all occupancies in between, and we will work diligently to convert our adversaries into our allies. I believe that for every day we miss the mark at gaining the widespread acceptance of the fire sprinkler concept, we delay implementation by two days, especially in these particular social, political and economic times. Together we can and we will make a difference and we will increase implementation times so that we have a positive impact in everyone's lives. So, let's get to work and lead!

We can and we will become the most effective and efficient association we can be! I have spent my entire working life fighting fires. With your continued support and the good Lord's help, I will keep doing that by being part of the team that is promoting the widespread acceptance of the fire sprinkler concept and by supporting you as members, who take it from concept to reality!

The NFSA is an inclusive organization made up of dedicated and committed members of a progressive life-saving industry. This industry manufactures, designs, supplies, installs, inspects, and services the world's most effective system in saving lives and property from uncontrolled structural fires. This is the fire sprinkler industry and we are the National Fire Sprinkler Association. It's time to be proud of all that has occurred to bring us here today. It's time to be positive and move forward with vision.

In service,

A handwritten signature in black ink that reads "Shane Ray". The signature is fluid and cursive, with a large initial "S" and "R".

Shane Ray, President

Area	States	Regional Manager	Area Director
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Tennessee	Tennessee		
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North Central	Minnesota	Tom Brace, NFSA 1433 Idaho Ave West St. Paul, Minnesota 55108 (651) 644-7800 FAX (651) 603-8827	Gregg Huennekens United States Alliance Fire Protection 28427 North Ballard – Unit H Lake Forest, Illinois 60045 (847) 736-3496 FAX (847) 816-0098
	Wisconsin	Marty King 3317 South 113th Street West Allis, WI 53227 (414) 531-9542 king@nfsa.org	
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Central	Iowa, Kansas, Missouri	TBA	Dennis C. Coleman Engineered Fire Protection, Inc. 1615 South Kings Highway St. Louis, Missouri 63110 (314) 771-0033 FAX (314) 664-1619
South Central	Arkansas, Louisiana, Oklahoma, Texas	Cynthia Giedraitis NFSA 2013 Oakwood Trail College Station, Texas 77845 (979) 324-8934	John Kauffman III Kauffman Company 13225 FM529 – Suite A Houston, Texas 77041 (713) 937-4144 FAX (713) 937-4149
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Southwest	Arizona, Nevada, New Mexico,	Associate Director of Regional Operations - West Bruce Lecair, NFSA 25417 West Hyacinth Street Corona, California 92883 (951) 277-3517 FAX (951) 277-3199	Aaron Bennett RCI Systems, Inc. 1220 West Geneva Drive Tempe, Arizona 85282 (480) 894-8711 FAX (480) 894-8740
West	California, Hawaii		Jack Thacker Allan Automatic Sprinkler Corporation 3233 Enterprise St. Brea, California 92821 (714) 993-9500 FAX (714) 993-5708
Northwest	Alaska, Idaho, Montana, Oregon, Washington	Suzanne Mayr, NFSA P.O. Box 7328 Tacoma, WA 98417 (253) 208-8467	James Boulanger Patriot Fire Protection, Inc. 2707 70th Avenue East Tacoma, Washington 98424 (253) 926-2290 FAX (253) 922-6150
		Vice President Field Operations James Lake 12 Clearwater Drive Plymouth, MA 02360 (617) 372-6214 lake@nfsa.org	DIRECTOR AT LARGE Clark Gey Wayne Automatic Fire Sprinkler 222 Capitol Court Ocoee, Florida 34761 (407) 877-5564

Changing How You Perceive the Role of Your Investment Advisor

by Jeff Bucher

On the surface, when people think of an investment advisor, financial planner or retirement planner, what they think of is someone that's going to assist them with making the selections of their stocks, bonds and mutual funds. As you transition into the retirement stage there are many other important areas of retirement that also need to be considered. Selecting the right retirement guide that will be able to help in all of these areas is crucial for you to have a fulfilling retirement.

We call ourselves many different things, Financial Planners, Investment Advisors, or maybe even Retirement Planners. Regardless of the title, you probably go to us all for the same thing - to use our knowledge and expertise regarding the financial markets to invest your funds for you. On the surface, this describes the role of the advisor. However, we feel that this limited role of the advisor specifically covers one period of your investment lifetime, the accumulation period, when you are trying to build and grow your wealth. As you transition into retirement (the portfolio distribution phase), it's important that the advisor begin to take on a larger role when it comes to your financial well-being. As an advisor that specializes in the distribution phase, the investment selection must be complimented by a strategy of when best to file for Social Security Benefits, a plan to minimize the amount of taxes that will be due, and a sustainable withdrawal strategy to ensure that your needs will be met for the remainder of your lifetime.

Fiduciary vs. Suitability

When it comes to the investment selection, it's very important to understand what type of advisor with whom you're working. There are two different types of advisors that plan within two different sets of rules. There's the investment advi-

sor, who is held to a fiduciary standard, and then there is the registered representative, or an insurance professional, who is held to a suitability standard. Understanding what standards that they're held to and how they're compensated is part of the investment selection process that, as the consumer, you need to be aware of. The differences are crucial.

A fiduciary standard is a legal obligation where the advisor must act in the best interest of their client and puts the client's best interest ahead of their own. It is the highest standard of care available under law. Fiduciary advisors can be regulated by the SEC or state regulators. An example to explain this standard is an advisor with two identical products that have different fees, who must recommend the one that is lower in cost. They can't recommend the product that makes more money for them or their company. A fiduciary advisor is often paid by a quarterly fee that is calculated as a percentage of assets.

According to the FIRNA Industry Professionals manual, the suitability standard requires that a registered representative or insurance professional must have a reasonable basis to believe that a recommended transaction or investment strat-

egy involving a security or securities is suitable for the customer. This is based primarily on financial objectives, current income level and age, in order to complete a commissionable sale of a financial product. There is no requirement to find the best investment for you, only ones that are seemingly suitable for you. They offer a range of products for sale carried by the company he or she represents. The way that someone with a suitability standard gets paid is by commissions calculated as a percentage of money invested into the product.

Which type of advisor would you like to work with after hearing the differences between the two?

>> CONTINUED ON PAGE 11

Seneca | SCHOOL OF
FIRE PROTECTION

Congratulations to Seneca Alumnus Steve Frederick

Steve won the 2015 Top Tech Competition and is now ranked the best Fire Sprinkler Technician among peers from the U.S. and Canada.

Steve works for R M Arsenault Engineering Inc. and is a graduate of Seneca's Fire Protection Technician program.

For more information about Seneca's fire programs, visit: senecacollege.ca/fire

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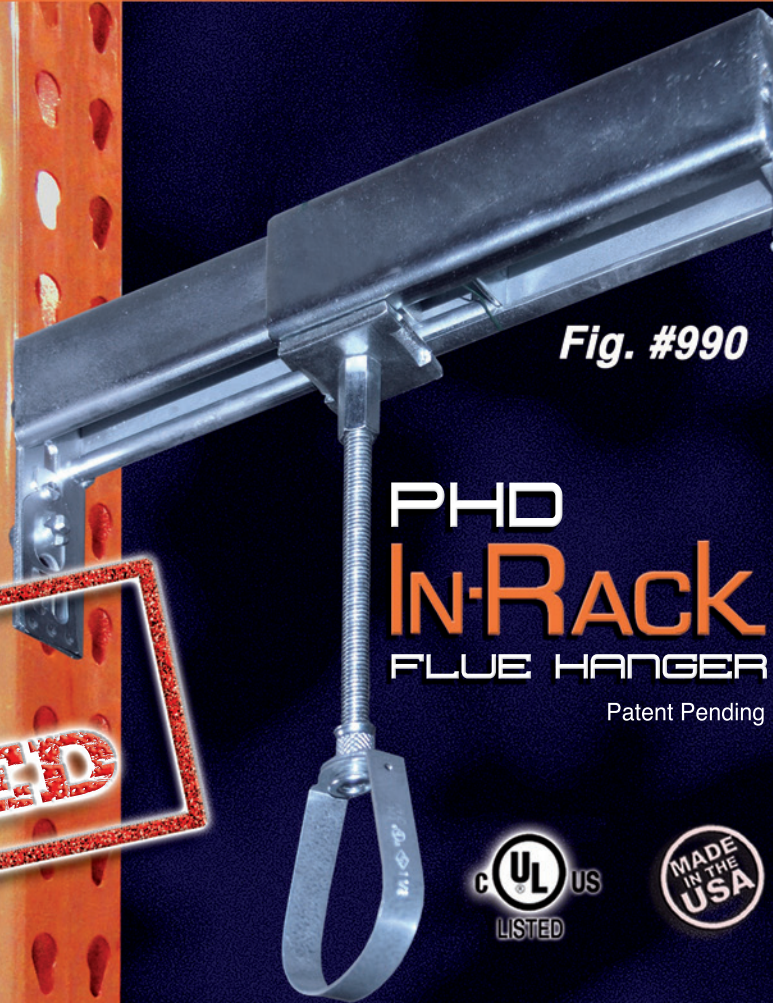
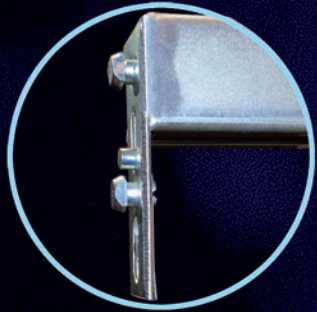


Fig. #990

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>>CONTINUED FROM PAGE 9

What to expect from a retirement planner

As we transition into retirement, the investment selection is still part of the process, but there's more to expect from a retirement planner.

Important questions we need to ask include:


- How are we going to create an income/distribution plan of these assets that's going to be reliable and sustainable for as long as you live?
- How do we select a social security filing strategy that will best meet our needs it?
- How are we going to protect your standard of living from inflation?
- How are we going to reduce your tax obligations?
- How are we going to position these assets in a way that you still have the liquidity that you need for all kinds of emergencies and related discretionary spending?
- How can we position things in such a way that you have the income stream you need and, at the same time, have the flexibility to handle life's unknowns?
- How can we help protect you from the risks of a long term illness?
- How do we select the right health care plan to best meet your needs and resources?
- How do we protect the legacy that you want to leave behind for your heirs?

Transitioning into Retirement

Again, as we transition into this retirement phase, investment selection is part of the process. But now we need to focus more on an income plan, which encompasses social security planning, tax planning, planning against inflation and health care planning - all of these things are added into the picture. So, during this transition, the perception that you have of your investment advisor needs to take on a new role. Often, with new clients, we find that there hasn't been a transition, which means the client is being greatly underserved.

At Citizen Advisory Group, (www.citizenadvisory.com), our program offers a much more comprehensive approach to the retirement planning side of things. We pull in the investment selection with an income/distribution plan that includes planning for social security, longevity and taxes. We unify all of these different pieces to create a very well-rounded plan. This allows people the safety and security to go out and enjoy their retirement lifestyle and spend their money without the fear associated with running out of money during their lifetimes. 

ABOUT JEFF BUCHER

Jeff Bucher is president of Citizen Advisory Group, (www.citizenadvisory.com), and is an Investment Advisor Representative of Alpha-Star Capital Management, an SEC Registered Investment Advisor. He has a life and health insurance license with the state of Ohio. His membership affiliations include the exclusive Ed Slott's Master Elite IRA Advisor Group™, National Association of Insurance and Financial Advisors (NAIFA), the National Association of Fixed Annuities (NAFA) and the Forum 400. He has earned Top of the Table honors through the Million Dollar Round Table (MDRT). Jeff has been featured on the Toledo, Ohio television affiliates for NBC, CBS, FOX, and ABC. Bucher is a former standout wrestler at The Ohio State University, where he earned an athletic scholarship and honed his leadership skills en route to earning four varsity letters. 



FUTURE NFSA ANNUAL SEMINAR SCHEDULE

May 4-6, 2016

**NFSA Annual Seminar
Laguna Cliffs Resort & Spa
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MAY 3-6, 2017

**NFSA Annual Seminar
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next issue

SQ

**SEPTEMBER/
OCTOBER**

**Don't miss the next
issue of SQ as we
explore everything ITM!**



July 21, 2015

Backflow Prevention and Fire Sprinkler Systems

ROLAND ASP, CET

The NFPA installation standards (NFPA 13, NFPA 13R and NFPA 13D) do not require the installation of backflow prevention devices; however, there are times when these devices are required by building codes, plumbing codes, and health codes. The most common reason backflow devices may be required is based upon the cross-connection guidelines of the water purveyors. A particular point of contention between the fire protection industry and the water supply industry revolves around residential sprinkler systems. These devices create an added expense and also cause pressure loss that must be accounted for in the hydraulic calculations. Although these devices do not serve a specific fire protection purpose, they do serve a purpose. This seminar will include discussion on the variables of a fire protection system that may necessitate the inclusion of a backflow prevention device, along with the types of backflow devices and their installation.

August 18, 2015

Obstructions to Standard Spray and Extended Coverage Sprinklers

ROBERT UPSON

Spray sprinklers are the oldest type of sprinkler in regular use today and still the most versatile. NFPA 13 contains general obstruction requirements for all sprinklers as well as specific requirements for each specific type. Fixtures, structural members, and more, may or may not be considered obstructions to sprinkler discharge. Different obstruction rules vary with the characteristics of the obstruction. This seminar will explore the rules governing clearance to both standard spray sprinklers and extended coverage spray sprinklers and demonstrate the impact of the rules on sprinkler spacing.

September 15, 2015

Obstructions to Residential Sprinklers

LOUIS GUERRAZZI, EIT

Residential sprinklers have been on the market for over three decades. These sprinklers are listed to a separate product standard by the laboratories than spray sprinklers and have unique installation criteria. The three different installation standards, NFPA 13, NFPA 13R and NFPA 13D all maintain position requirements for residential sprinklers. Fixtures, structural members, and more, may or may not be considered obstructions to sprinkler discharge. Different obstruction rules vary with the characteristics of the obstruction. This seminar will explore the rules governing clearance to residential sprinklers through all three installation standards and demonstrate the impact of the rules on residential sprinkler spacing.

October 20, 2015

Obstructions to ESFR and CMSA Sprinklers

VICTORIA B VALENTINE, PE

Early suppression fast response sprinklers (ESFR) and control mode specific application (CMSA) sprinklers are commonly used in protecting storage scenarios. These sprinklers undergo different product testing in order to achieve their listing. With the large volume of water that comes from each of these sprinklers, they are extremely sensitive to obstructions. Fixtures, structural members, and more, may or may not be considered obstructions to sprinkler discharge. This seminar will explore the rules for positioning ESFR and CMSA sprinklers when obstructions are present.

November 17, 2015

Implementing New ITM Procedures from the 2014 Edition of NFPA 25

JASON WEBB

The 2014 edition of NFPA 25 is currently only adopted by a handful of jurisdictions as the process of updating codes and standards can take a few years or more. With that in mind you can expect that many states and local AHJs will soon begin enforcing the requirements of the current edition of the standard. To comply with the 2014 edition of NFPA 25, changes in the process of inspecting and testing will need to take place. Whether it is as simple as conducting a valve status test instead of a main drain test, or the totally new practice of testing diesel fuel quality for fire pumps, everything from contract terms and conditions to how long an inspector should plan to be onsite will be effected. In this seminar, we will discuss some of the more significant of those changes and how to prepare for them.

December 15, 2015

Updating ICC Codes – Moving from the 2009 to the 2015 Edition

JEFFREY M HUGO, CBO

National code development often outpaces the actual code adoption in many jurisdictions. It is not uncommon for a community to be two or three editions behind the latest published edition. When it comes time to update, many questions arise about the new requirements. This course is designed to provide answers to those questions on what is new in the code. This course will also address those communities that have the older editions of the ICC codes and what to expect in the 2015 edition. There are many updates on fire sprinkler requirements, fire pump installation, fire department connections, and much more. The 2009 and 2012 edition codes to the 2015 edition will be reviewed while providing many visual representations, handouts and discussion to assist the fire sprinkler contractor and code official on the updates.

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Field Operations Combines Regional Ops and Training

By James D. Lake

A

As part of the NFSA's Transition Management Plan, the Regional Operations and Training Departments have been combined into Field Operations. The combination is a recognition of the close relationship these two departments share in meeting the goals and objectives of NFSA in meeting our mission and serving our members.

NFSA's Regional Managers have always worked closely with the Training Department to schedule, promote and implement training programs for NFSA members, Authorities Having Jurisdiction and other participants.

This has resulted in a robust and growing training schedule that provides a means for members to stay up-to-date with changes in technology, codes and standards, as well as an opportunity for contractor members and AHJs to "hear the same message" and start a dialogue about common conflicts or misunderstandings.

Training also provides a vehicle to attract new members and a way to reach underserved or new areas and provide financial support for NFSA.

Because the Regional Managers are the local point of contact, they are in the best position to determine the training needs for each region and the training requirements for each area, including continuing education requirements of the state. Regional Managers are constantly dialogu-

ing with members and AHJs regarding their training needs and utilizing the on-line and hard copy training catalogues to pique interest in available trainings. Tailored seminars are a hallmark of NFSA training and have been developed and delivered in coordination with the Training Department.

Regional Managers have constantly

by such an outstanding crew of Regional Managers tasked with promoting the fire sprinkler industry.


Over the past few years, NFSA training has experienced steady growth. It is because of the dedication and close relation between Regional Operations and Training. Combining these two departments into Field Operations will increase the

"Over the past few years NFSA training has experienced steady growth because of the dedication and close relation between Regional Operations and Training."

communicated with the training and engineering staff members to see what training is crucial and timely to offer, and what topics are particularly well received.

Additionally, Regional Managers are crucial to the siting of NFSA training locations. Regional Managers are responsible for selecting a location with consideration given to group size, access, AV capabilities and other costs. Most of these variables can be provided by training facilities at local fire departments. Here again is where the relationships that have been nurtured by Regional Managers can contribute to the affordability of NFSA seminars and the goodwill that comes with them.

No other organization has the capabilities of providing such tailored training because no other organization is served

efficiency of the operations that develop, deliver and administer NFSA Training and will benefit the entire organization. 



Vice President
of Field Operations

James D. Lake

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State of the Technology

By Victoria B. Valentine, P.E.

NFSA is in its 110th year and just celebrated the 2nd North American Fire Sprinkler Expo. In those 110 years, some items have only changed minimally, while others have seen dramatic differences. There are still similar devices being used in fire sprinkler systems, but technology continues to evolve. This article will highlight some of the modifications and updates with fire sprinkler system technology.

Last year it was noted that more than 1 Billion sprinklers had been shipped since 1980. Figure 1 shows the change in the number of sprinklers shipped on an annual basis over that time. The good news is that the industry is in a growth period. The last 4 years show a steady growth, which should continue. Along with new installations, the next step is to make sure that the systems are maintained so that the good reputation and prosperity can continue.

NFSA exerts much effort to maintain the codes and standards that impact the fire sprinkler industry. However, it is crucial to recognize that NFSA members and allies play a significant role in accomplishing this task. This is no small feat. There are more than 100 documents written by over 90 committees that impact the fire sprinkler industry. Many of these are NFPA codes and standards such as the common ones of NFPA 13, NFPA 14, NFPA 20, etc. discussed regularly. Yet a tremendous amount of effort also exists in working with ASSE (American Society of

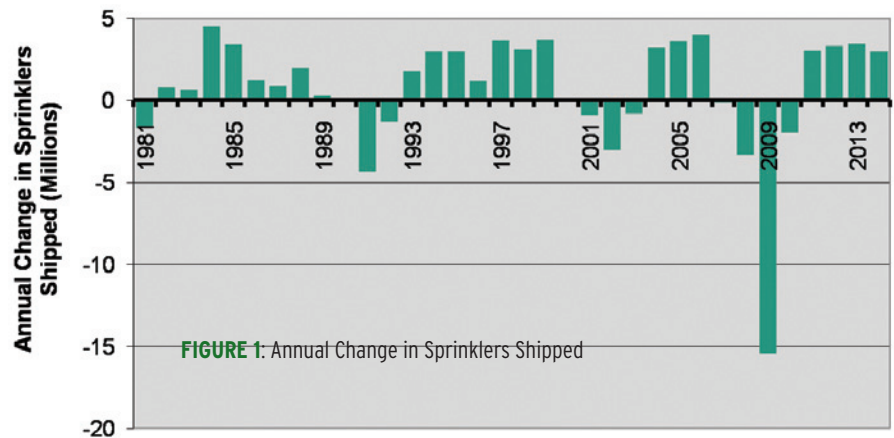


FIGURE 1: Annual Change in Sprinklers Shipped

Sanitary Engineering), ASME (American Society of Mechanical Engineers), ASCE (American Society of Civil Engineers), AWWA (American Water Works Association), ICC (International Code Council), FM (FM Approvals), UL (Underwriters Laboratories), ISO (International Standards Organization) and the list continues, even from there. In order to achieve this reach, there are more than 150 representatives comprised of staff and NFSA members. Many of the NFSA volunteers dedicate their time to help cover the documents relating to the industry. Together these representatives assist in carrying the voice of the fire sprinkler industry to all the committees in an effort to have quality fire sprinkler systems installed.

NFPA 13 - The Next Edition

The next edition of NFPA 13 is wrapping

up its cycle. The 2016 edition will be on the streets this fall. However, before it gets there, the NFPA technical session will happen in June so that the membership can hear any of the certified amending motions (CAMs) that are available at www.nfpa.org for all of the documents being voted on at that time.

This cycle also has the twist of there being a handful of Tentative Interim Amendments (TIAs) issued on the document before it is published. There are six to

>> CONTINUED ON PAGE 17



NFSA's Director of Engineering

Victoria B. Valentine, P.E.

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date. Two of them are already approved, and four more are in the hopper being processed by the committees. The benefit of these early additions and corrections to the document is that they will actually be printed in the published version.

TIA 1124 has passed ballot and is an editorial correction to Figure 17.2.1.4(f) as published in the 2013 edition. The in-rack sprinklers were supposed to be indicated in every other flue space, which is the advantage of using a higher ceiling density when selecting that figure. It was not picked up appropriately in the 2016 revision cycle so the TIA clarifies it and allows it to be published correctly.

TIA 1165 has also passed ballot and deals with exposed expanded plastics. There were additional tests from the Fire Protection Research Foundation (FPRF) for exposed expanded plastics under 30 ft high ceilings which allowed for lower pressures for ESFR sprinklers at this lower ceiling height compared with other testing done under a 40 ft high ceiling. The TIA will allow this information to be incorporated into the 2016 edition.

TIA 1180 is in the process of being balloted (at the time this article was written). This lengthy TIA amends the information in NFPA 13 related to concrete anchors used in areas subject to seismic forces. It will correlate the information in NFPA 13 with ASCE/SEI 7, Minimum Design Loads for Buildings and Other Structures, which is the governing standard referenced by the model building codes for addressing earthquake forces. Since sprinklers are a life safety system it is important to make sure their concrete anchors are accounted for appropriately. The committee has met on this matter a couple of times and the TIA will most likely pass.

TIA 1183 and TIA 1184 are in the process of being balloted (at the time this article was written). These both deal with commodity classification sections, one for the body of the standard and the other for the annex. These TIAs correct figures that are supposed to parallel the text of the standard along with their accompanying language when describing how much plastic is permitted within Class III and Class IV commodities. It also clarifies situations for plastic materials when they are cartoned and when they are exposed. The

changes are not considered technical but instead editorial coordination to remedy inconsistencies based on revisions during the 2016 cycle. It is anticipated that these TIAs will also pass.

Lastly, TIA 1185 is in the process of being balloted (at the time this article was written). It deals with pipe stands. Pipe stand information was incorporated into NFPA 13 during the 2016 revision cycle. There are some concerns with someone being able to extend the criteria beyond what was intended by the committee based on the wording of the section. The correction would be to limit the heights of the pipe stands such that this worst case application is handled, even though that is not the common use for pipe stands within fire sprinkler systems. This TIA is estimated to have only a 50 percent chance of passing the committee ballots. All will have to wait and see what the committee decision will be for this TIA.

One area that should be highlighted from the 2016 revision cycle is the addition of criteria on exposed expanded plastics. The Fire Protection Research Foundation (FPRF) conducted testing that has led to standardized criteria for the storage of exposed expanded plastics in NFPA 13. ESFR K-25 pendent sprinklers can be used to protect storage up to 35 ft high under a 40 ft ceiling. The aisles do have to be maintained at least 8 ft wide and vertical barriers are also used in the protection scheme. Even though every configuration will not be covered by the requirements, NFPA 13 will no longer state that protection of exposed expanded plastics is beyond the scope of the criteria.

NFPA 20 - The Next Edition

NFPA 20 is in the same revision cycle as NFPA 13. Similarly, NFPA 20's second draft will be reviewed by the membership in June at the NFPA meeting and then published this fall. A few of the highlights for the revision cycle follow here.

Multi-stage and multi-port pumps are an option in place of using multiple fire pumps. Although they have been used periodically through the years, they are now incorporated into the standard clearly providing another option for users.

Next, pumps are permitted to be in sep-

arate pump rooms when in series under five conditions that all have to be met. All pumps rooms have to be capable of starting and stopping each pump, displaying the suction and discharge pressures from each pump and alarms and signals will have to be annunciated for each pump. The interconnect control wiring between the pump rooms and pump room communication systems have to comply with the other applicable sections of NFPA 20. Again, this is providing options to the users for arranging pump rooms as needed throughout the building.

Also, the fire pump acceptance form has been updated. Even though the form is in the annex of the standard, the modifications will help communicate the necessary information for a fire pump when it is accepted into service, which will then be used for comparisons throughout its lifespan.

NFPA 25 - In Progress

The NFPA standard for inspection, testing and maintenance is also in its revision cycle. The First Draft has been published and was available for public comments through May 15th. Some comments have been developed by the NFSA Engineering and Standards Committee at their April meeting. Following are a few of the items the NFPA 25 Committee was discussing in their development of the first draft.

Starting with compliance times, currently, there is no information in the document on how long an owner has to correct deficiencies or impairments. This was discussed last cycle too and limits were supported by the membership at the NFPA technical session, but did not make it into the 2014 Edition. Limits have still not received the support of the committee in the first draft but the discussions are continuing.

Next, tagging the system status with color coded tags has been put into Annex G. This will be a new annex that will assist with achieving consistency in the process for tagging and coordinating on a larger level opposed to each jurisdiction creating its own program.

Standardized reports for those who perform the ITM services is another item

the NFPA 25 committee is working on. Currently, there is no required document to collect the data. This will be annex guidance to create a standardized reporting method. In the future, it may be possible to move this into the body of the standard. This will help to improve the application and enforcement of NFPA 25.

Briefly, the chapter on fire pumps is being modified. It will be refocused on the fire pump starting and meeting the water supply needs of the system it supports. The concept is to get back to functionality of the equipment related to the system it is supporting.

ICC

The 2015 Edition of the ICC code family was published last summer. It is available and being reviewed as states and jurisdictions proceed through their adoption processes.

The 2018 Edition of the ICC code family have begun preparations. The Group A hearings took place in April. Approximately 1000 code proposals were submitted for the IBC, IPC, IEBC, and IRC Plumbing. NFSA had an interest in about 200 of those proposals, and Jeff Hugo, Manager of Codes, testified on more than 30 of the proposals. Many of the anti-sprinkler proposals are being defeated as many of our allies are helping to support sprinkler installation.

The sprinkler certification exams are now available. NFSA served as subject matter experts throughout their development. They were initially requested by the fire service. Although they have been completed for some months now, their use to date has been minimal, but they are available.

Next, it is important to be aware that the entire code development process for ICC is electronic and online. NFSA has been working on ways to educate ICC governmental members on enrolling, designating, and voting in the process. The cdpACCESS is the official name for what gets referred to as "online" voting. Everyone is encouraged to reach out to AHJs that they know and work with them so that educated voters are participating in the process. NFSA's TechNotes recently contained information that could assist

allies with their position on a few of the items being balloted.

NFPA 101 & NFPA 5000

The Life Safety Code™, NFPA 101, and NFPA's building code, NFPA 5000, were published last fall as 2015 Editions. Yet their revision cycle is again rapidly approaching. July 6th is the deadline for public input. Then the committees will review the input and begin to revise the codes.

Research: Sloped Ceiling & Storage

Having storage under a sloped ceiling (more than 2 in 12) is questioned regularly. Even in the 2016 edition of NFPA 13, there will still be no criteria for this situation. At last year's annual seminar, the modeling that was being done for NFSA was highlighted. Now, the Fire Protection Research Foundation has moved forward with a project to carry it further. That program is early in its phase, but they have conducted a survey that is being used to gather information on current storage practices under sloped ceilings. Hopefully, this program will lead to developing standardized criteria for the protection of storage under sloped ceilings.

Research: Water Flow Data Adjustments

NFPA 13 did not accept the proposal to adjust water flow test data by 5% during the revision cycle. However, NFPA 13R and NFPA 24 did accept the proposal. The Correlating Committee voted to wait for further information on this subject since the FPRF had an ongoing project on this topic. Therefore, the proposal was reversed for NFPA 13R and NFPA 24, and no modification to that text will appear in their 2016 editions.

The report being awaited is "Quantification of Water Flow Data Adjustments for Sprinkler System Design." It is in its draft form right now and should be published mid-year. This will be the completion of Phase 2 for this project. This was an analysis of water estimation methods, which includes simple calculations, water forecasting models and water distribution system models. There has been a

focus on the distribution models and their ability to predict future demands. At this point a few of the recommendations are: (1) coordinate with water utilities by forming AWWA and NFPA task groups, (2) determining water supply degradation parameters, and (3) standardized water flow test procedures - this will harmonize the information in NFPA 291 and AWWA M17.

A survey was answered by various water supply utilities in order to gather the information that was analyzed. NFPA 13 already includes many safety factors for water supply. Therefore, the committee is proceeding cautiously. They do not want to penalize already conservative approaches, yet they want to make sure the situation is adequately addressed.

Research: Resiliency

The FPRF report on this subject became available this past November. NFPA has a long history with fire protection. However, the discussion of resiliency has been more recent with its development of the NFPA 5000 building code. Now, multiple emergency situations, natural and man-made, have to be addressed including fire protection amongst the others. The focus was not only being able to contend with the event and have the building survive, but to make recovery easier.

In the process of the project team's discussion, NFPA 13 was held in high regard for being proactive in dealing with seismic protection. In general, sprinkler systems do not have to contend with many natural disaster events as the building envelope protects them, but seismic can still impact the system. The efforts made to address this have been noticed outside the sprinkler community.

Meet the Technical Team

Have you been curious as to who is behind the NFSA's great reach into the technical arenas? Although staff regularly presents the industry technical updates, there are many other representatives. Hopefully, the staff team is already familiar: Victoria Valentine, Director of Engineering; Jeff Hugo, Manager of Codes; Roland Asp, Manager of Technical Services; Robert Upson, Manager of Installation Standards;



FIGURE 2: NFSA Engineering and Standards Committee in Orlando, FL.


Louis Guerrazzi, Manager of Product Standards; Jason Webb, Director of Inspection, Testing and Maintenance; James Lake, Vice President of Training, and, last but not least, John Corso, Manager of Training.

The other major component in the technical team is the NFSA Engineering and Standards Committee (see Figure 2). This group helps to steer the technical functions of the NFSA. It is made up of contractors, manufacturers, SAM, and at-large members. The commitment of this group is so strong that not only principal

committee members, but most of their alternates attend all meetings, which is typically two in-person meetings per year plus conference calls as needed. The discussions assist all present in interpreting the codes and standards as well as addressing items that need solutions and clarification. Thank you to the members who serve in these roles.

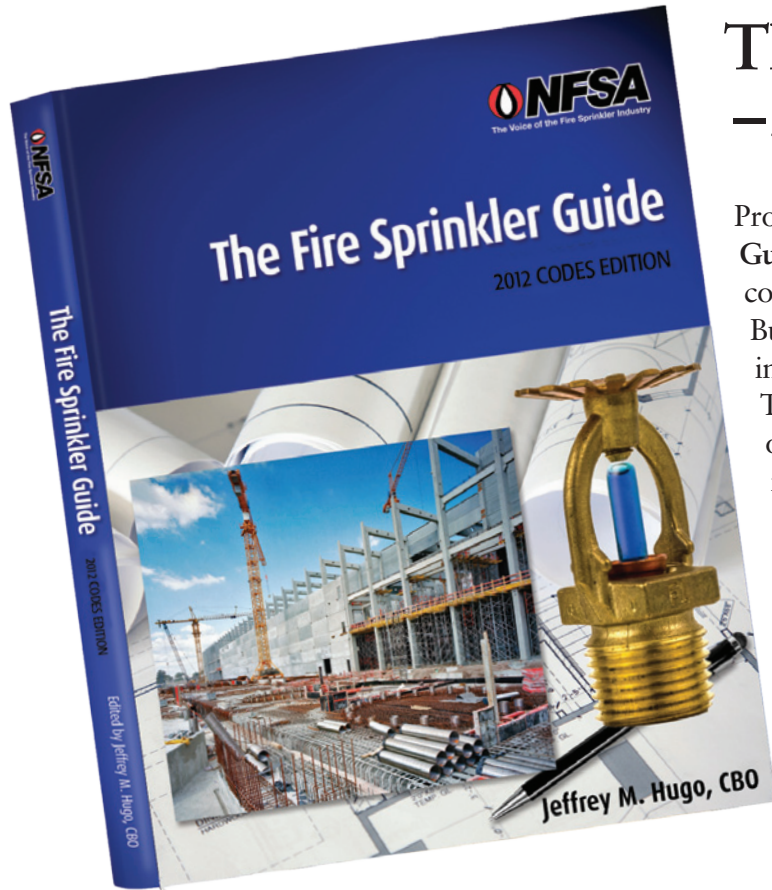
The NFSA technical team is the best around because of the varied backgrounds of its members along with the common goal of good quality fire sprinkler systems.

Summary

There are pieces of the technology that have been used that are decades old or more. Yet there are also pieces that are new. If the products have not changed, well, it is possible that their application has. This article has briefly reviewed the highlights from the last year. Stay up-to-date with the many publications from NFSA. If you need to get on the distribution lists, just log into the member portion of the website, www.nfsa.org. 



The Fire Sprinkler Guide –2012 Codes Edition



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. This book is a "must have" for anybody that performs hydraulic calculations of fire sprinkler systems or performs plan review and approval of hydraulic calculations.

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Separating Accessory Occupancies of NFPA 13R within the IBC

By Jeff Hugo, CBO

NFPA 13R is used to protect residential occupancies up to four stories and 60' in height above grade plane. The residential occupancies protected by the NFPA 13R standard are typically R-1 (hotels and motels) and R-2 (apartments), but can also be used for R-3 (boarding and congregate), R-4 (custodial care) and I-1 (board and care) occupancies. The scope of NFPA 13R specifically states, "...protection against fire hazards in residential occupancies..." This standard has criteria for the residential spaces as well as the other occupied areas of the building that are ancillary to residential users of the building. All residential occupancies have accessory occupancies, such as laundry facilities, gift shops, assembly spaces, exercise rooms, and other related occupancies. The scope, as mentioned above, also covers the ancillary occupancies of the residential occupancy with appropriate protection for the anticipated hazard.

There are four important sections in the 2013 edition of NFPA 13R that address accessory occupancies. They are Section 1.1 (A.1.1) 6.2.2, 6.4.7, and 7.2. It is critical to first understand the scope of NFPA 13R in Section 1.1 and the in-depth explanation of the scope in the Annex of Section 1.1. Next, the first technical section to note is Section 6.4.7. This section specifically names several areas of the building that are considered residential accessory areas. These areas are: lobbies, foyers, corridors, halls, lounges, areas classified

as ordinary hazard, garages connected to a single dwelling unit and other areas that have fire loading similar to the residential occupancy. While areas outside dwelling units are required to be protected with quick response sprinklers, NFPA 13R permits these specific areas to be protected by residential sprinklers, which are also a type of fast response sprinkler. Lobbies in hotels and motels with the fire hazards associated with cooking or warming of food cannot be protected by residential sprinklers unless NFPA 13 design and discharge criteria are used. However, NFPA 13R has an exception for residential sprinkler uses in ordinary hazard areas when a list of five conditions are met in Section 6.2.2.4, they are:

1. Up to 500-square foot compartments with 30-minute fire-rated construction.
2. Sprinkler spacing at 130-square foot per sprinkler.
3. Each opening has at least an 8-inch lintel.
4. The total area of openings in the compartment cannot exceed 50 square feet, excluding garage doors.
5. Ordinary hazard discharge densities per NFPA 13. Note, this condition does not trigger NFPA 13 to be installed throughout.

As mentioned above, NFPA 13R (in Section 7.2) requires the areas outside the dwelling units, such as accessory areas, to be sprinklered with quick response sprin-

klers using the design area and discharge densities from NFPA 13. However, in small compartmented areas, NFPA 13R permits the quick response sprinkler rules to remain within NFPA 13R. Below is a list for use when quick response sprinklers within the NFPA 13R standard are used:

1. The design area is the actual number of sprinklers or up to four, whichever is greater.
2. Up to 500-square foot compartments with 30-minute fire-rated construction.
3. Sprinkler spacing is per the listing, or at 130-square foot per sprinkler for ordinary hazard, or up to 225-square foot for light hazard.
4. Each opening has at least an 8 inch lintel.
5. The total area of openings in the compartment cannot exceed 50 square feet, excluding garage doors.
6. Ordinary hazard discharge densities need to be per NFPA 13. Note, this condition does not trigger NFPA 13 to be installed throughout.

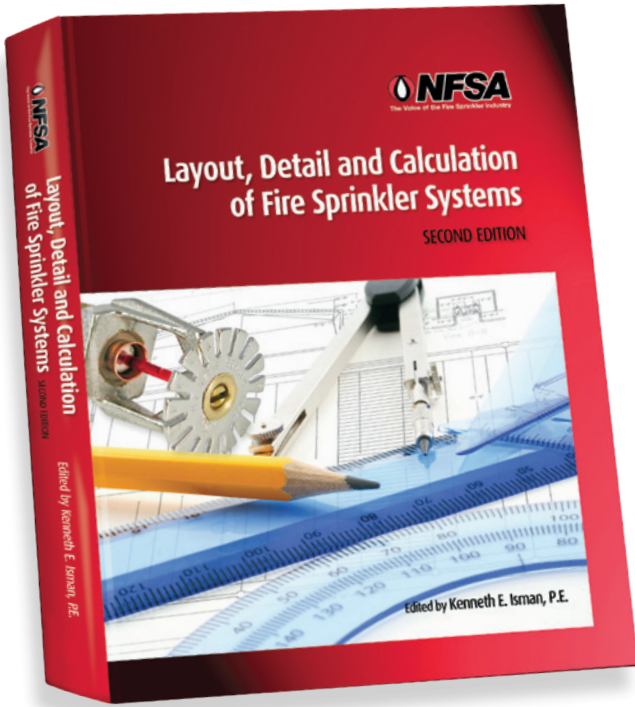
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NFSA's Manager
of Codes

Jeff Hugo, CBO

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



The NFSA announces the publication of the 2nd Edition of its popular textbook, *Layout, Detail 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 non-members (plus S&H). To get your book, fill out the following form and return it with your payment.

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The International Building Code (IBC) recognizes that accessory occupancies exist and provides designers liberal options to arrange them within a floor of a story. Many primary occupancies have accessory occupancies, for example, a mercantile building may have a coffee bar and a business office may have a commercial shipper located within the main occupancy. The IBC would permit these small accessory uses in Section 508.2. Residential occupancies, protected by NFPA 13R as explained above, have accessory occupancies also, such as laundry facilities and gift shops that serve the occupants of the structure. Section 508.2.3 permits accessory occupancies to occupy 10 percent of the floor area of each story. This allowance has been in the IBC since the 2000 edition. Furthermore, the IBC has never required the accessory occupancy to be separated from the main occupancy by fire barriers, when under 10 percent, with a few exceptions, one of which is specific to R-1, R-2, R-3 and I-1 occupancies. For example, a 4-story mercantile building with 12,000 square feet on each floor would be allowed up to 1,200 square feet of accessory occupancies on each floor with no fire separation. A four story hotel or apartment building with 12,000 square feet on each floor would also be allowed up to 1,200 square feet of accessory occupancies. However, the hotel and apartment (R-1, R-2, R-3 and I-1) accessory occupancies would have a mandatory fire rated separation required in IBC Section 508.2.4 Exception 2, which states, “dwelling and sleeping units shall be separated from accessory occupancies that are contiguous to them.” The user is then sent to Section 420, which refers to Section 708 for fire partitions (walls) and Section 711 for horizontal assemblies (floor/ceiling). The fire resistance rating of dwelling and sleeping unit walls or ceilings will be either thirty minutes or one hour, but in no case, even with sprinklers, is the fire-rating less than thirty minutes. When the accessory occupancies are contiguous with the dwelling and sleeping units, the thirty minute or one hour fire partition separations would apply. Even if the accessory occupancies are not considered contiguous, R and I occupan-

cies are highly compartmented by nature and the requirements for the type of construction add to the accessory occupancy separation which means the majority of the walls, floors and ceilings have a fire rating. While Section 508.2.4 appears to have a broad brush of no separation of accessory occupancies, it goes beyond for the noted residential (R-1, R-2, R-3 and I-1) occupancies.

The IBC permits unseparated accessory occupancies, unsprinklered, up to 10 percent of the floor area, but holds the same limitation for a fully sprinklered (NFPA 13 or NFPA 13R) residential (R-1, R-2, R-3 and I-1) occupancy and mandates (at least) thirty minute fire partitions for the same accessory occupancy. If an unsprinklered mercantile occupancy can have a coffee shop with no separation, why would the same coffee shop in a sprinklered residential occupancy be required to have a fire

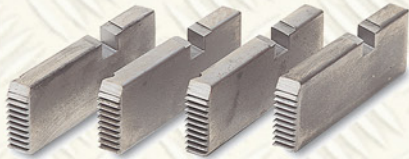
“NFPA 13R has developed the design criteria for protection of accessory occupancies to complement and correlate to the IBC accessory occupancies over the past several cycles.”

partition in the surrounding walls and ceiling? If the argument is held to just NFPA 13R, which does not have area increases in the IBC, then the unsprinklered building actually has less of a burden. This philosophy is flawed and unjust. An increase to the percentage of accessory occupancies protected by NFPA 13R (and naturally NFPA 13) for residential (R-1, R-2, R-3 and I-1) occupancies is warranted.

NFPA 13R has developed the design criteria for protection of accessory occupancies to complement and correlate to the IBC accessory occupancies over the past several cycles. Accessory occupancies in the IBC are treated as areas outside the dwelling units in NFPA 13R. Many accessory areas are light hazard with fire loading similar to light hazard in NFPA 13 and are referred to NFPA 13 by NFPA 13R for design discharge (minimum of 0.1 gpm/sq.ft. but up to 0.2 gpm/sq.ft. or higher for

ordinary hazard occupancies) and design area criteria. Where residential sprinklers are used in lieu of quick response sprinklers in an accessory area, NFPA 13R has increased the design density and limits the area in size to 500 square feet with thirty minute fire rated walls, or in IBC terms, thirty minute fire partitions. In short, the accessory areas in the IBC for R occupancies have the same flow and spacing as they would under NFPA 13.

It is clear that R occupancies and their accessory occupancies have more separation requirements and a higher sprinkler density than an unsprinklered accessory occupancy. Does this warrant a higher percentage in the allowable area per floor in IBC Section 508.2.3? Many R-1 and R-2 occupancies are predominately residential as explained in NFPA 13R Section A.1.1. Hotel and apartment accessory occupancies have residential atmospheres with similar fire loading as the dwelling units. If the dwelling units are not limited in area and have a lower sprinkler density in NFPA 13R, why would the accessory occupancy with a higher sprinkler density and closer sprinkler spacing be limited to 10 percent per floor? Would it be acceptable if the first floor was 50 percent of the floor area with a lounge, gift shop, lobby and exercise area separated by (at least) thirty minute walls and ceilings with NFPA 13 criteria? If not, these areas over 10 percent are required by the IBC to be looked at further and either treated as unseparated occupancies or separated occupancies with two hour fire barriers. Separating a fully sprinklered building that has the same area limits as an unsprinklered building that is already highly compartmented with two hour fire barriers is certainly not justified. Installing a two hour fire barrier to separate residential style fire loading is more restrictive than the one hour fire barrier for stairs or horizontal exits in the means of egress path. The IBC needs to follow up with changes to permit increased accessory sizes to match the needs of the architectural industry and building owners' wants. The fire reports and statistics do not show any negative aspects of allowing increased nonseparated accessory areas for residential buildings. ①



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Building on Traditions in the Present, Working to Secure the Future

By Joanne Genadio



110 years have gone by since the formation of the National Fire Sprinkler Association. In those 110 years, NFSA has had the honor of being led by the most respected and distinguished fire sprinkler industry leaders on its Board. Today, as a shining example of this high caliber leadership, we at NFSA are thrilled to have the first father-son team, John and Conor Kauffman, serving on our Board at the same time. We hope that this becomes a tradition as well, ensuring not only the quality of the members that choose to lead, but a future that secures the integrity and strength of the Association as well.

Tradition is obviously important to the Kauffman family. In 1947, John "Bud" Kauffman, John's father, became an apprentice sprinkler fitter for Automatic Sprinkler of America. In 1976, John Kauffman III started in the fire sprinkler industry working at the same company. In 1977 he moved to Houston, Texas and has been in the fire sprinkler business ever since. He and his son Conor decided to open their new firm, The Kauffman Company, in 2006. With almost 70 years in the fire sprinkler industry, the Kauffman's take seriously the idea that giving back to the industry that your livelihood depends on is not only common sense, but makes good business sense as well.

John and Conor took the time to sit down and answer a few questions about what they feel their roles and responsibilities as NFSA members entail.

JOHN KAUFFMAN

John, as an NFSA Area Director, in your opinion, what is the most important role an Area Director plays?

I think the most important function of the Area Director is really twofold. To empower, support and direct the Regional Manager and to rally the troops (i.e. the area members). The front person should be the RM.

Being on the Board of Directors, how does your work as a fire sprinkler contractor help provide useful input as to how NFSA is governed?

Fire Sprinkler Contractors are really the front end of the entire industry. We generate the business for the manufacturers and suppliers. What we see is somewhat different than what they see. We are the boots on the ground. Changes that are happening in the industry are usually noticed first by the Contractors.

Your son Conor, as the first Chair of the Future Leadership Committee, also has a seat on the Board. As such, you are the first father and son to serve on the NFSA Board at the same time. Thoughts?

I am honored and humbled by this. The fire sprinkler industry has put food on the Kauffman family table since 1947 when my father started as an apprentice with Automatic Sprinkler out of Youngstown, Ohio. He then opened a door for my uncle to become a designer for Automatic. Forming this business with my son in

2006 has been a daily blessing. Seeing him grow into a leadership role in this industry leads me to believe I have done something right.

Any personal thoughts or comments you'd like to add?

This honorable industry faces a future of continuous change and challenge. The one thing that will not change is that it is all about hanging pipe. If the pipe does not get in the air... none of us have a job!

CONOR KAUFFMAN

As Chair of the Future Leadership Committee (FLC), what do you hope to accomplish?

There are many things that I hope to accomplish with the FLC. As the inaugural chair, I hope that many of my ideas continue to thrive and flourish with this group. Naturally, most of the great ideas that the committee currently has in mind are not my own. We have come a long way in building a group of active members that are passionate about the fire sprinkler

>> CONTINUED ON PAGE 26



NFSA's Marketing
Manager

Joanne Genadio

>> CONTINUED FROM PAGE 25

concept, and the role that NFSA plays in promoting it.

We hope to continue to grow this group from the national level all the way to grass roots groups, learning how NFSA can better serve members (especially up and coming ones) across the country. I hope to create new relationships between contractors, manufacturers, suppliers, professional members and AHJs.

I hope that this group can continue to assist and guide NFSA in its transformation. I hope to encourage more people to become passionate about their industry, and to have a voice. I hope that they find their voice and use it, through NFSA. I hope to get more people involved in molding the industry and the NFSA into what we need and want it to be. I hope to have measurable success in increasing membership by showing contractors what is so often referred to as "tangible value" that the NFSA can offer. Some may disagree with my vision, but I also hope to bring the NFSA and AFSA closer together, albeit through "baby steps." That may be a far-fetched idea, but to me, it makes sense.

I hope to assist NFSA in creating opportunities for individuals and businesses to grow their knowledge and their bottom lines, respectively. I hope to build a group of leaders, to learn from current leadership, and to continue the rewarding work of the NFSA.

What would you like to say to others who are considering joining the Committee?

I would tell them to get involved. I believe that every person has a responsibility, no matter what industry they are in, to give some of their time back to the industry that takes care of themselves



John (left) and Conor Kauffman attend an NFSA Board Meeting on the Queen Mary.

and their families.

How has your father's dedication to NFSA influenced your involvement with the Association?


Being a third generation sprinkler contractor, I have worked for many sprinkler companies, most of which have been NFSA members. For the longest time, all that meant was a plaque on the wall that everybody walked by twice a day. We never really used the tools that were available to us. When my father decided to get more involved, I didn't really understand why. I

did, however, see a few things in my father that influenced my involvement. He was more knowledgeable regarding the state of the industry than anybody I had met locally. He was also proud to represent our area that has been historically under-represented in the NFSA. As I started to progress quickly in my career, I began to yearn for something "more," as so many do. I wanted to be a part of something bigger than myself, and he showed me that there was a way to do that and promote our business at the same time.

Any personal thoughts or comments you'd like to add...

I often comment that we, as a company, wouldn't deal with the turmoil and struggle of the construction industry if we weren't saving lives and property. I am passionate about this business and this industry because of the lives and property that we save. We are not firefighters; but the work that we do matters, and it is dignified. I am honored to be a part of the NFSA, and hope to continue to serve the true "Voice of the [Fire] Sprinkler Industry."

NFSA South Central Regional Manager Cindy Giedraitis considers herself lucky to be able to work with both John and Conor and states that they truly exemplify the meaning of a Father-Son Team. "John and Conor are a true Texas Team," says Cindy, "John brings traditional fire sprinkler knowledge, leadership and experience to their business, while Conor brings cutting-edge technology, innovations and new ideas."

Commenting on her interactions with John as her Area Director, Cindy added "John is a wise, kind and fun-loving mentor to all who serve in the fire sprinkler industry, especially for Conor, myself, and the entire staff of The Kauffman Company." 

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By Allison Corbett

Teaching the Next Generation of Fire Protection Engineers

A year ago, Ken Isman, then NFSA's Vice President of Engineering, announced that he was leaving the NFSA after 28 years to take a position as a Clinical Professor in the Fire Protection Engineering Department at the University of Maryland. Here's why that was a good decision for the NFSA and the sprinkler industry.

As the design of fire protection systems becomes more complex and performance-based, sprinkler contractors are going to either need to hire fire protection engineers or develop closer relationships with the specifying engineers involved in sprinkler design. Either way, the sprinkler industry will benefit tremendously from fire protection engineers that know what they are doing and have a practical and in-depth knowledge of the design of fire protection systems.

The University of Maryland has made a commitment to preparing the next generation of fire protection engineers by hiring a new professor with practical knowledge of the design of fire protection systems. In most schools, this position would carry the title of Professor of Practice, but at the University of Maryland, this position is known as a Clinical Professor.

Ken Isman was hired to teach the classes in fire protection systems design, life safety analysis and performance-based codes and standards. During each of these classes, Ken's students work with realistic building plans to design complete fire protection systems for wood product assembly buildings, hotels, and aircraft hangars. These real-world examples provide valuable experience for the students, preparing them for productive internships while they are still students and allowing

them to make a difference as soon as they graduate and start their careers.

In his first year, Ken taught two classes on fire protection system design, a class on life safety analysis, a class on fire alarm system design and a class on performance-based codes. For his second year, Ken is developing a new fire protection system design class so that the students can develop a deeper understanding of water-based fire protection systems. Ken is also hoping to develop a class that will be offered to fire protection



and architecture students on the use of building codes and fire codes as a start of a cooperative agreement between the School of Engineering and the School of Architecture.

In addition to being a top-notch educational institution, the University of Maryland is one of the best research institutions in the country. Having Ken on the faculty of the University helps the fire sprinkler industry. Ken will be making sure that the research efforts have practical applications in solving the questions that need to be answered to improve the fire sprinkler industry. Already Ken has made contributions to an FPRF (Fire Protection Research Foundation) research program to develop sprinkler discharge criteria for storage occupancies with sloped ceilings.

Ken's appointment was made possible

by the formation of the FPE's Legacy Campaign for a Professor of the Practice (known as the Legacy Campaign for short). Launched in 2012 by a group of FPE alumni and the University of Maryland, the campaign has raised over \$1.5 million toward its \$2.5 million goal. Special thanks to NFSA members Tyco (through both Tyco Fire Protection Products and SimplexGrinnell) and Reliable for their support of the campaign. Additional financial support from the Dean of the Engineering School enabled the University to hire Ken in August 2014, while the campaign was still ongoing.

Unfortunately, the support from the Dean for Ken's position ends in the spring of 2016. If the Legacy Campaign does not reach its \$2.5 million goal by that time, Ken's position may be eliminated. The fire sprinkler industry will benefit tremendously in the future from having a Clinical Professor like Ken at the University of Maryland. Help support the position by making a contribution to the Legacy Campaign. A contribution today is an investment in the fire sprinkler industry of tomorrow.

To learn more about the history and goals of the Legacy Campaign, and how you can contribute to its success, visit fpe.umd.edu/legacy-campaign or contact:

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NFSA ANNUAL SEMINAR AND 2ND NORTH AMERICAN FIRE SPRINKLER CONFERENCE HIGHLIGHTS

The 2015 NFSA Annual Seminar and 2nd North American Fire Sprinkler Expo marked 110 years of service to the Industry by our Association. The event was witness to many great moments; a sold out Expo, a rousing and unforgettable Top Tech Competition, Buddy Dewar receiving the Golden Sprinkler Award, Russ Fleming passing the presidential baton to Shane Ray and many more. "Camaraderie" and "networking" were the buzzwords of the hour, with new friends and old interacting in a spectacular Florida setting at an event filled with the latest need-to-know info provided by top Fire Sprinkler Industry leaders. Here's to the next 110 years!



NFSA Chair of the Board, Larry Thau, opens the conference with welcoming remarks

SEMINAR HIGHLIGHT

The Opening Session on April 30th brought NFSA Chair Larry Thau to the podium to rally the troops and welcome all to the event.



Buck Buchanan, Awards Committee Chair, announces this year's Fire Sprinkler Hall of Fame inductees



NFSA President, Russell Fleming, delivers the State of the Industry address



Author, musician and consumer advocate, Dave Carroll, delivers an entertaining keynote address

NFSA

The Voice of the Fire Sprinkler Industry

Annual Seminar



This year's Golden Sprinkler Award recipient, Buddy Dewar, makes his acceptance remarks

SEMINAR HIGHLIGHTS:

- *Some attendees were lucky enough to attend a guided tour of Kennedy Space Center at Cape Canaveral. From the photos that were uploaded to our event app, it looked like all had a fantastic time!*
- *Florida's own Buddy Dewar, NFSA's long-time Vice-President of Regional Operations was both honored and overjoyed to receive this year's Golden Sprinkler Award.*

SEMINAR HIGHLIGHT

Some attendees were lucky enough to attend a guided tour of Kennedy Space Center at Cape Canaveral. From the photos that were uploaded to our event app, it looked like all had a fantastic time!

NFSA President, Russell Fleming, gestures to Chair of the Board, Larry Thau, to stand clear of the giant ribbon cutting scissors being wielded by CASA President, John Galt. The group officially opened the 2nd North American Fire Sprinkler Expo®.





SEMINAR HIGHLIGHT

The North American Fire Sprinkler Expo drew members from near and far. Our SAM members showed their usual unflinching support by completely selling out the Expo. There was not a booth to be had. Contractor and Subscriber members strolled the Expo searching out the latest and greatest of what our industry had to offer.

Large crowds attend the 2nd North American Fire Sprinkler Expo®



Bob "The Courier" Upson delivers Top Tech Competition questions under the watchful eye of Special Agent Jim Lake.



Always a crowd favorite, the Top Tech Competition doesn't disappoint



Top Tech Competition hosts Roland Asp and Victoria Valentine with runner-up Fred Blanchard (left) and champion Steve Frederick (right)





Having served many years with Russ Fleming, it was only fitting that former Vice President of Engineering, Ken Isman, make this year's Technical Service Award presentation to Russ, this year's recipient. Ken announced that going forward the award will be known as the Russell P. Fleming Technical Service Award.

SEMINAR HIGHLIGHT

More than one milestone for NFSA's Russ Fleming as he stepped down from the NFSA Presidency on the 2nd day of the event, passing the baton to Executive Vice President Shane Ray. He was also named this year's recipient of the Russell P. Fleming Technical Service Award.



Putting faces to names, here's NFSA's engineering department: Louis Guerrazzi, Bob Upson, Jeff Hugo, Roland Asp and Victoria Valentine.



Serving as Chair of the Day for the second plenary session, Vice Chair of the Board, Kent Mezaros, introduces Victoria Valentine who delivered the State of the Technology address.



Coffee breaks between the filled to capacity workshop sessions provided attendees with networking opportunities.

NFSA Vice President of Field Operations, Jim Lake, moderates a panel discussion on sprinkler retrofit in North America. Panelists are Buddy Dewar, NFSA; John Galt, CASA and Carlos Morrett, AMRACI



SEMINAR HIGHLIGHTS

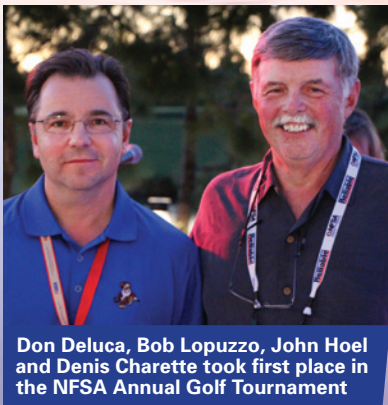
- Gail Minger, founder of the Michael H. Minger Foundation was awarded with the Leadership in Public Safety Award.
- An NFSA first, the presentation of the President's Award, honored two recipients this year; Mr. Sam Davis of Island Harbor Construction and Mr. George Bogris of Whitney & Bogris LLP



The U.S. Team won the Clark Cup back from the Canadian Team and CASA President John Galt makes the ceremonious presentation to newly appointed NFSA President Shane Ray.

SEMINAR HIGHLIGHT

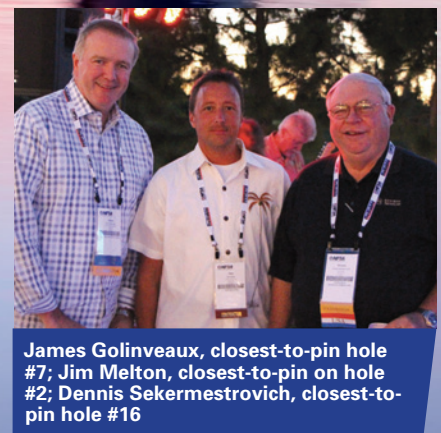
Through a close victory the NFSA golf team upset the CASA team and the Clark Cup made its way back to the US... until we meet again.



Don Deluca, Bob Lopuzzo, John Hoel and Denis Charette took first place in the NFSA Annual Golf Tournament



Second place went to the foursome of Scott Monroe, John LaVenture, Dale Findlay and Wally Miller



James Golinveaux, closest-to-pin hole #7; Jim Melton, closest-to-pin on hole #2; Dennis Sekermestrovich, closest-to-pin hole #16



Area 1 Director, Don Deluca, with his team from SRI Fire Sprinkler



Newly appointed President of NFSA, Shane Ray, with his mother Donna and daughter Anna Lee



Joanne Genadio, Michael Repko, Theresa Scalone, Carla Gunther and Judy McNulty of the NFSA staff



Vicky Valentine, Chuck Kitts, John Kauffman and Jane Fayland



NFSA President Shane Ray with Carlos Morrett from Mexico and Alex Rodriguez Aparicio from Colombia



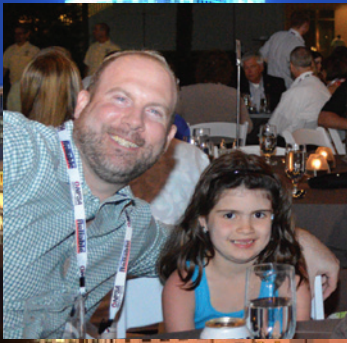
Landon, Jennifer, Emmie, Michele, Cliftene, MacKenzie and Ellison having fun during the closing banquet



Golden Sprinkler Award recipient Buddy Dewar, wife Adele and their extended family



Camaraderie, fellowship and laughter among family and friends were common themes throughout the conference and exhibition

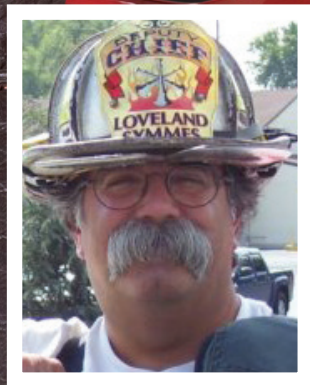


Be sure to join NFSA May 4 - 6, 2016 when the NFSA Business & Leadership Conference goes to Laguna Cliffs Marriott in Dana Point, California





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— Deputy Chief Billy Goldfeder,
Loveland-Symmes FD, Ohio

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Director of Public Fire Protection Vickie Pritchett
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Notes from the Fire Scene

The Value of Relationships is key to us as we work to share our story of having a fire safety game plan with the world. We've had lots of great examples of our relationships in action lately, and the best example of all was at our North American Fire Sprinkler Expo® (NAFSE) in Orlando, Florida. Relationships are needed both internally for us as an Association team which includes our staff, Board, and members as well as externally with allied organizations.

One of the staff opportunities that I have been given is to work with the Future Leadership Committee and this group is full of energy, ideas, and momentum! What fun to see many of their ideas come to life at NAFSE and to watch the positive outcomes that occur when the ideas of this group are given the chance to take flight. Their opening "Happy Hour Reception" was a great way for us to kick off our time together, and the side by side burn demonstration also turned out to be a highlight. Creative ideas were everywhere with this group, including one that featured a one of a kind NFSA customized fishing lure with the tagline of "Let us Lure you to Join NFSA" - the challenge set forth by the FLC was for those of us gathered in Orlando to go home and recruit additional NFSA members so that our team could grow.

Another highlight for us at NAFSE was our opening keynote speaker – Dave Carroll. With humor and a wonderful ability to share a story, Dave brought to life his unfortunate customer service experience



Pam Elliott, Shane Ray, Gail Minger, Vickie Pritchett following Gail's award presentation.

with United Airlines in a way that we could all relate to. An added bonus was his debut of the song "The Fallen and the Brave" which was written in tribute to firefighters who have died in the line of duty. Following the song's official unveiling, Dave initiated the #FallenandtheBrave challenge which is now working it's way across the fire service social media markets. If you would like to make a donation and support the National Fallen Firefighters Foundation, visit www.firehero.org and find out all the details!

Additional highlights for me included seeing Chief Shane Ray assume the Presidency of our National Fire Sprinkler Association

and seeing Gail Minger receive the Leadership in Public Safety award. As one who has been able to be on Chief Ray's team at the local, state and now national level I can share my insight regarding his

>> CONTINUED ON PAGE 39



Director of Public Fire Protection

Vickie Pritchett

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>> CONTINUED FROM PAGE 37

track record. Promoting fire sprinklers is not just part of a “job” for Chief Ray, it’s part of who he is. With leadership and vision he will be one that sets the bar high and it’s exciting to be a part of the team that works with a focus on service to our members and beyond. Working with Gail as a founding member of Common Voices has been so rewarding, and there is no one more deserving of this award that un-

derscores the important advocacy work Gail has lead with the Michael Minger Foundation and other national groups.

These are exciting times for our NFSA team, and as we work hard to serve and motivate with our examples of #fastest-water in action, we ask you to help us expand our relationships that matter. Our focus, our spirit, our vision.... all factor into our game plan. Are we prevention focused? Are we working to spotlight the

role that fire sprinklers play in preventing flashover like our side by side burns so graphically underscore?

It’s time for us to build upon our relationships, share the stories that help others understand who we are, and save lives in the process! Remember, we all have something to add to the team. Let’s grow strong together! ①

*Until next time, Stay Safe,
Vickie*



Side by Side in action!

Dave Carroll, Vickie Pritchett, Shane Ray on the show floor after his standing ovation “United Breaks Guitars” and “Fallen and the Brave” debut



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NFPA 25 Compliance

By Jason Webb

The role that the different stakeholders play in the ITM process is often debated. But when the focus turns to compliance with NFPA 25, those roles are clearer than with some of the other parts of the process. Only one person, the owner, can comply with the standard and only the AHJ can enforce it. In this case, the contractor's role is to provide a means for the owner to fulfill their responsibilities. Sometimes AHJs, and even owners, may assume or urge contractors to play a more active role in compliance, but NFPA 25 wasn't designed with that in mind. There are tools though, both inside and outside of the standard, that the contractor can be a part of to help owners achieve, and AHJs verify, compliance.

NFPA 25 Compliance Tools

Recent editions of NFPA 25 include things to assist with compliance that did not exist in the past. Defining the terms that describe conditions found is one of those. Now the term "impairment" specifically refers to a condition that renders the system or a part of the system inoperable. A "deficiency" on the other hand, has the potential to impact the performance of the system, but does not rise to the level of an impairment. Deficiencies are further expected to be categorized into critical or non-critical depending on whether they will or won't have a "material effect" on system performance. By helping owners prioritize repair or replacement programs, these definitions can lead to increased

compliance.

Another tool related to defining conditions is the annex language for deficiency, or annex A.3.3.7 (in the 2014 edition). This table provides guidance regarding recommended classifications of the conditions identified during inspection or testing. While only explanatory in nature, and not part of the requirements of the standard, this table serves as a tool to bring consistency to the process of classifying issues found.

After performing the required inspections and tests, the simple act of classifying corrections or repairs is a natural next step. When these steps are combined with some of the tools outside the standard, improved compliance can be achieved and verified.

Compliance Tools Outside of NFPA 25

In most cases, deficiencies and impairments are documented on a report, and NFPA 25 requires that the owner make these reports available to the AHJ upon their request. Although NFPA 25 establishes the minimum information that must be contained in ITM reports, no particular form is required. To help bring consistency to this process, some jurisdictions require that ITM activities be reported on a specific form. Needed corrections or repairs can then be found in a common location on all reports. This aids the owner in quickly identifying what issues need attention and allows the AHJ the same benefit.

Another tool used in some jurisdictions to help bring awareness to owners and as-

sist AHJ's with identifying systems where corrections or repairs are needed is the use of color-coded system status tags. Often these tagging requirements combine condition classification with reporting to help visually identify systems that have deficiencies or impairments.

As with mandated reporting forms, tagging requirements are currently not addressed in NFPA 25. At the time of this writing, there are proposals being debated by the technical committee dealing with both subjects. Depending on the outcome of those proposals, these issues may ultimately be addressed by the standard, which may help further their effect on compliance.

There are many other tools and best-practices to help improve compliance with NFPA 25 than can be covered in this short article. Not all will work in every situation. Of course, nothing lends itself to increased compliance more than educated, engaged owners and AHJs. To help with this critical effort, NFSA has seminars, brochures, online training, ITM forms and other tools available. Information on each of these can be found on our website at www.nfsa.org.



Director of
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Jason Webb

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Future Leadership Committee Provides Energy & “Future-Forward” Focus

The National Fire Sprinkler Association has long understood the importance of succession planning and involvement of all members, including those who are and who will be assuming leadership roles. As a result of this, the Board of Directors formed the Future Leadership Committee in 2013. Two years later, the results of its formation are being realized and it's exciting.

The Future Leadership Committee played a big role in the recent North American Fire Sprinkler Expo® held in Orlando, Florida, providing a great opening “Happy Hour Reception” by the pool. It provided a great opportunity for NFSA members to network prior to the official opening on Thursday, April 30th. The theme included customized fishing lures with the NFSA logo, along with a hang card that encouraged everyone to recruit more members to NFSA – using the “lure” to realize NFSA member benefits.

“The fishing lures with our message proved to be a big hit,” said Conor Kauffman, Future Leadership Committee Chair. “We are realizing the ways that we can provide input that makes a difference in our Association, and it's great to see our ideas incorporated into key events. Our time at UL Laboratories in February was also a highlight for us to be involved in national research and have that access.”

“The visionary leaders who created the Future Leadership Committee and the dedicated members who make up this group inspire us all,” adds NFSA President



Larry Thau, Conor Kauffman, Shane Ray and Rich Ackley at the Happy Hour Reception

Shane Ray. “It has been an honor for me to be involved. This is what high performance organizations are focused on and I look forward to serving, working, and growing together with this group and our leaders.”

With the Committee currently exploring ways to expand and involve even more up-and-coming fire sprinkler advocates, the report of additional exciting news is inevitable. In the meantime, have a fire safe summer. ☺

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By Roland Asp

Residential Backflow Prevention for One- and Two-Family Dwellings

Residential fire sprinkler systems installed in accordance with NFPA 13D are undoubtedly the single most effective method of preventing the loss of lives from fire in the place that we spend most of our time, our homes. One of the basic tenets of these systems is to keep the installation cost affordable; if people cannot afford to install these life safety systems, the life safety benefits of these proven systems will remain unrealized.

The committee responsible for the NFPA 13D installation standard understands that cost is a major factor and the standard includes concessions to this cost issue while still maintaining a high standard of life safety. The primary purpose of the standard is to protect us from injury and death from fire in our homes and the standard achieves this in an affordable, cost-conscious manner.

That being said, not all costs associated with these systems can be avoided. As with all water-based sprinkler systems, these systems need a supply of water and often the most effective and affordable source of water is the municipal water supply. This municipal water supply is under the control of the water purveyors, who have their own responsibilities regarding public safety. Their mandate is the protection of the public water supply.

The question now becomes “does a residential sprinkler system connected to the public water supply require a backflow prevention device?”

The answer to this question is simply

“ask the water purveyor.” I understand that this answer is unsatisfying, especially for those of us in fire protection whose work is primarily code and standard based. We are accustomed to the codes and standards specifically calling out the requirements. Unfortunately, the answer to whether or not a backflow prevention device is required for a NFPA 13D system is not always found in the building codes, plumbing codes or the installation standards. As recognized by NFPA 13D in annex section A.6.2, connections to city water mains for fire protection are often subject to local regulation for backflow prevention requirements. The protection of the public water system is often the responsibility of the health departments and/or the water purveyor. As such, they become the source of the local regulation to which this annex section refers.

If a backflow prevention device is mandated on these residential sprinkler systems, there is a detrimental effect on the sprinkler system. One is increased cost. There is a cost to purchase and to install the device. If annual testing of backflow device is required there is also an associated cost in maintaining the device. Another issue associated with these devices is pressure loss. The addition of a backflow device may force the system to be installed with larger pipes, smaller sprinkler spacing or even the addition of a fire pump. This also results in increase costs and these costs will be ultimately borne by the home owners. As backflow prevention does not serve a fire protec-

tion purpose and it is important to control the costs associated with NFPA 13D systems both for the homeowner’s benefit and for the overall acceptance of the residential fire sprinkler system concept, it is important to understand why and under what circumstances these devices may be required.

Just as “America Burning” highlighted the residential fire issues in this country, began the development of residential sprinklers and in effect gave the fire protection industry the mandate to protect the public from residential fires, the “Clean Water Act” gives the water purveyors the responsibility of protecting the public safety by maintaining a clean and safe public water supply. Both industries serve an important public safety role and it is important to note that the protection from fire that the fire protection industry promotes does not need to be in conflict with the water utilities’ role to protect the public water supply. Both roles are important and the importance of one does not trump or supersede the importance of the other. Common ground can be found; even through as fire protection industry

>> CONTINUED ON PAGE 46



Manager of
Technical Services

Roland Asp

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participants we are tempted to point out that thousands of people are still dying each year from unsuppressed fires.

This issue becomes even more unclear as many of today's NFPA 13D systems are piped in materials that are suitable for potable water use. These materials include CPVC, PEX and copper piping. There have been many studies that indicate that the water in dwelling sprinkler systems that are piped with these materials do not pose a health hazard, even if the water in

the system is stagnant or aged. A further complication to this subject is the different configurations of NFPA 13D type systems. There are stand-alone systems, multipurpose systems, and passive purge systems. Each of these systems has different issues when it comes to cross connections and must be addressed separately.

This article will not discuss the technical need for cross-connection or backflow prevention in NFPA 13D systems but will rather concentrate on the actual requirements that we may be subject to when

installing a NFPA 13D system.

Many states and water purveyors throughout the country have implemented a "Cross-Connection Program" in their jurisdiction. At its core, this program requires the supplier of water to protect the public water system by containing potential contamination within the premises of the user. If a potential for contamination exists, this containment is often achieved by the use of a backflow prevention device.

In order to understand the issues of cross-connection, a few concepts must be discussed:

The US EPA defines cross-connections as "actual or potential connections between a potable water supply and a non-potable source, where it is possible for a contaminant to enter the drinking water supply." The American Waterworks Association (AWWA), in the third edition of M14 Backflow Prevention and Cross-Connection Control, expands on this definition and states that a "cross-connection is an actual or potential connection between any part of a potable water system and an environment that would allow substances to enter the potable water system." These substances could include water from other sources (potable or nonpotable) and would include any material that may change the color or taste of the water or that may add odor to the water.

The last sentence of the previous paragraph is important. A potential for a health hazard being introduced into the public water system is not the only concern. Cross-connection is also aimed at preventing anything that may smell, look or taste bad from entering the public water regardless of whether it poses a health hazard. This is often misunderstood by those of us in the fire protection community. The confusion may stem from the mistaken belief that backflow preventers are recommended only for possible health hazards. This is not true, cross-connection is also recommended if the water is considered aesthetically objectionable.

Although there are many considerations in determining the risk of cross-contamination from a residential fire sprinkler system to the public water supplies: one of the main issues is the potential degree



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of hazard. Would a backflow event pose a health (high) hazard or a non-health (low) hazard?

To make this determination, many water suppliers rely on the recommendations of outside associations such as the AWWA or the Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR).

The remainder of this article will discuss the current recommendations of these two organizations.

American Water Works Association:

AWWA's M14 Backflow Prevention and Cross-Connection Control is a recommended practice that provides guidance to the water suppliers in establishing backflow prevention and cross-connection control policies. This document is the resource that many water purveyors rely on to determine if a particular process, including residential sprinkler systems, would need a backflow preventer. As this document is a recommended practice and not a code, it is used as guidance only and a specific water supplier may have requirements that are less or more stringent.

M14 addresses residential sprinkler systems for one- and two-family residences in chapter 6 of the third edition in a specific section titled "Fire-Sprinkler Systems, One- and Two-Family Residential." This section recognizes that these systems have various configurations that may require a different level of protection. The AWWA recommended backflow protection for residential sprinkler systems in one- and two-family homes is as follows:

Multi-purpose Systems: No additional backflow prevention protection other than what is required on the domestic system.

Passive Purge Systems: No addition backflow prevention protection as long as the piping is approved for potable use. M14 recognizes that a residential sprinkler system that is piped with material that is approved for potable use and is flow-through does not require backflow prevention. Passive purge systems include

a toilet on the system that will prevent the water in the system from becoming stagnant.

Stand-Alone Systems: The recommended backflow prevention for stand-alone systems is based upon the system hazard. A reduced pressure backflow prevention assembly is recommended for systems deemed to be a high hazard and a double check valve assembly is recommended for systems that are classified as low hazard. If a system contains an antifreeze solution, it would likely be classified as a high hazard system and a reduce pressure assembly would be required. Most other systems would be thought of as a low hazard and a double check valve assembly is recommended.

In order to understand the reasoning behind these recommendations it is important to understand the hazard classifications used by AWWA. A health hazard is easy to understand. It is something that may cause illness or death. However, what constitutes aesthetically objectionable water is less understood by the fire protection community. The AWWA definition of a non-health or low hazard is:

"Any substance that generally would not be a health hazard but would constitute a nuisance or be aesthetically objectionable if introduced into the potable water supply"

This definition is why AWWA recommends that stand-alone systems be provided with backflow prevention. It is not to always to prevent a potential health risk but also to ensure that the water coming out of our homes' faucets tastes, looks and smells appealing.

Foundation for Cross-Connection Control and Hydraulic Research:

FCCCHR publishes the Manual of Cross-Connection Control which water purveyors also use as a resource to determine the level of backflow prevention recommended for various systems. The 10th edition of this manual provides similar recommendations as does M14. The FCCCHR does use different terminology than does AWWA but in the end, the guidance is similar.

A health hazard is referred to as "contaminants" and a non-health hazard is a "pollutant." FCCCHR does not have specific requirements for residential fire sprinkler systems but the manual uses the same process to classify potential cross-connections whether in a residence or in a factory. The recommended level of protection is based upon the degree of hazard.

A residential sprinkler system that is considered a health hazard (contaminant) would be recommended to be protected with a reduced pressure backflow device or an air gap. A system that includes an antifreeze solution would be an example of a health hazard and a reduced pressure backflow assembly would likely be recommended. Water in stand-alone systems, where the water is stagnant, would be considered a pollutant (even if piping is considered potable) and the minimum level of backflow protection that would be recommended is a double check valve assembly. A pollutant is defined in the 10th edition of the FCCCHR Manual of Cross-Connection Control as:

"An impairment of the quality of the water to a degree which does not create a hazard to public health but which does adversely and unreasonably affect the aesthetic qualities of such waters for domestic use."

Based upon FCCCHR guidelines, a residential sprinkler system that uses potable water piping and is a flow-through (passive purge or multi-purpose) system, never allows the water to become stagnant and so there is no degree of hazard. As there is no degree of hazard, no backflow protection is recommended.

Summary:

As residential fire sprinkler systems in one- and two family dwellings become more prevalent in this country, these 13D systems are going to be required to meet the cross-connection requirements of the water supplier. In many cases, these systems may be required to include a backflow prevention device.

Although studies have shown that as long as the system uses piping and other materials that are appropriate for potable use, the water in a stand-alone system

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does not pose a health hazard, this does not necessarily mean that no backflow prevention device will be required. The fact is that backflow prevention devices are often required to isolate the public water supply from aesthetically objectionable water, even if this water does not pose any health concerns.

The addition of a backflow prevention device does have a detrimental effect on these life safety systems. One is increased cost. There is a cost to purchase and

install the device. In some cases, there is also a cost to have the device tested on an annual basis. The second problem with these devices is pressure loss. The addition of a backflow device may force the system to be installed with larger pipes, smaller sprinkler spacing or even the addition of a fire pump.

As indicated in this article, it is common that these backflow requirements will come from the water purveyors who, in turn, often use the recommendations of AWWA and/or FCCCHR to determine if a

backflow device is warranted on the NFPA 13D type sprinkler system. Based upon both the referenced documents, multi-purpose and passive purge systems piped with potable material do not require any level of backflow prevention. Based upon the same two documents, the stagnant water in standalone systems, even one with potable piping, may be recommended to be equipped with a double check valve assembly. If the system contains an antifreeze solution, then a reduced pressure backflow prevention assembly would be recommended.

It may certainly be economically advantageous to connect a single toilet to a stand-alone sprinkler system, converting it to a passive purge system, in order to avoid the need to install a backflow device.

It must be remembered that AWWA and FCCCHR documents are recommended practices and not codes or standards. The water purveyor can decide what is best for their system and may choose to ignore the recommendations of the AWWA and FCCCHR manuals. In some cases the water purveyor will not require any form of backflow protection or be satisfied with a dual check valve. Other jurisdictions may go overboard and require RPZ backflow devices. Faced with the recommendations of both FCCCHR and AWWA, however, this stance would be difficult to justify. The National Fire Sprinkler Association is always prepared to fight against unreasonably severe backflow protection requirements. ①

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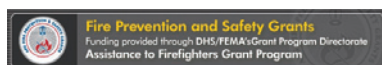
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The Home Fire Sprinkler Coalition has a new free video to help building officials understand the important role fire sprinklers play in new construction. The video includes interviews with experts from the National Institute of Standards and Technology (NIST) and Underwriters Laboratories (UL). They've conducted fire tests and research showing why fires in new single-family homes are more dangerous and how fire sprinklers protect occupants and firefighters.



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FREE RESOURCES To Help You Protect Your Community

The nonprofit Home Fire Sprinkler Coalition (HFSC) is the leading resource for independent information about home fire sprinklers. HFSC develops a wide range of fire safety educational materials that are provided at no charge and can be downloaded or ordered on HFSC's website, **HomeFireSprinkler.org**.

Raising Awareness with Direct Outreach to Nation's Fire Service

Our NFSA team is excited about the first two ads that have appeared in Firehouse Magazine, which are target specific to our nation's fire service, encouraging them to get involved in the national codes process. We know that fire service involvement is key to our success as we work to keep fire sprinklers in the national building codes and also to support their adoptions across the nation.


Thanks to the NFSA Sprinkler Manu-

facturers Council, funding is helping us engage with the Firehouse readership of 77,000+, which includes most all of the 33,000+ fire departments across the United States.

The first ad focuses on getting the fire service involved in the process and the second applauds efforts of a fire service icon, Chief Billy Goldfeder.

These ads are available electronically if you know of a local fire department

or state fire marshals office that would like to include in their newsletters and outreach.

Our consistent messaging is attempting to get the fire service to reach out to NFSA so we can help with getting them involved in the codes process and to help them lead by example, making sure they live in a home with fire sprinklers. 



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Proactive leadership includes fire sprinklers. Proactive fire service leadership includes code involvement. Get involved in the process, visit www.nfsa.org to learn more about being involved in the code process. Join the National Fire Sprinkler Association and receive a free gift.

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— Deputy Chief Billy Goldfeder, Loveland-Symmes FID, Ohio
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NEW ENGLAND REGION



DAVE LAFOND
Regional Manager

CONNECTICUT, MAINE, MASSACHUSETTS,
NEW HAMPSHIRE, RHODE ISLAND, VERMONT

The Massachusetts, Maine and Connecticut fire sprinkler coalitions have each been awarded grants in the amounts of \$10,000, \$10,000 and \$5,000 respectively by the NFPA through the *Bringing Safety Home* Grant program.

These grants come at a time when fire continues to wreak havoc at home. In 2014 for instance, there were 3,240 fire deaths. As of this date there have been 1,203 deaths by fire in the United States. Most of these deaths occurred in the home. Fire sprinklers would have made the difference with these staggering statistics.

The grants will help further efforts in 2015 to advance acceptance and use of home fire sprinklers and lead to increased sprinkler requirements in new one- and two-family homes.

As of June 3, 2015 the State of New Hampshire has become the newest fire sprinkler coalition in the Country. Activities are being planned for a kick off coalition event most likely late September 2015. The coalition members are discussing hosting a fire sprinkler forum including a live side-by-side educational burn demonstration. ☎

Dave LaFond

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NEW YORK REGION



DOMINICK KASMAUSKAS
Regional Manager

NEW YORK

On Friday, August 7, 2015 the NFSA Empire and Connecticut Chapters are host-

ing its first annual golf tournament. With proceeds to benefit Phoenix Society Burn Foundation, the event is being held at Casperkill Golf Club in Poughkeepsie, New York. Included in the registration fee of \$100 per player are breakfast, lunch and prizes.

For more information on how to register, contact Drew Slocum at dslocum@sup-
plynet.com or call 917.502.6574. ☎

Dominick Kasmauskas

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MID-ATLANTIC REGION



RAYMOND W. LONABAUGH
Regional Manager

DELAWARE, MARYLAND, NEW JERSEY,
PENNSYLVANIA, VIRGINIA, WASHINGTON D.C.

The Area II Seminar was held at the Princess Royale in Ocean City, Maryland, July 15-19. The program included:

- NFPA 13, 13D, 13R-What's New That You Need to Know? by Matt Klaus, Principal Fire Protection Engineer, NFPA
- An Inside Look at the Annapolis Mansion Fire by Brian S. Geraci, Maryland State Fire Marshal
- Large Loss Fire Investigations by John H. Lightbody, Fire Investigator, James F. Valentine and Associates
- Water-Based Kitchen Hood Protection and New Developments that Could Tie into Your Sprinkler System by Russell P. Fleming P.E., Sr. Advisor to the President, NFSA
- NFPA 25-Classifying Deficiencies by Terry Victor, National Manager of Sprinkler Business Processes, SimplexGrinnell

The event included a welcoming cocktail reception and vendor displays, Friday

morning breakfast for participants and families, volleyball tournament, sand castle contest, "Hall of Fame Ceremony" closing dinner honoring this year's Area II Hall of Fame Inductees, William Barnard, John "Jay" Livingston and Ray Lonabaugh. Free time allowed participants to enjoy the beach and attractions in Ocean City. ☎

Raymond W. Lonabaugh

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SOUTHEAST REGION



WAYNE WAGGONER
Associate Director of Regional
Operations - East

ALABAMA, GEORGIA, MISSISSIPPI,
NORTH CAROLINA, SOUTH CAROLINA,
TENNESSEE

The Tennessee Fire Sprinkler Contractors Association (TFSCA) held their 17th Annual Association Members Appreciation Cookout in Madison, TN. Over 90 Contractors, Associate Members and AHJs attended the outdoor event at which Richard Smith and Eric Briley cooked up some catfish, hushpuppies and barbeque. Several special guests attended including Deputy Commissioner of Commerce and Insurance, Gary West and Representative Kelly Keisling representing the 38 District of Tennessee.



Along with Representative Keisling are TFSCA President Ken Brinkley, TFSCA Vice President Bill Jones and representative Keisling's aid. ☎

Wayne Waggoner

*NFSA's Associate Director of
Regional Operations - East*

>> CONTINUED ON PAGE 54

REGIONAL ROUNDUP

>> **SOUTHEAST REGION** - CONTINUED FROM PAGE 53

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FLORIDA & PUERTO RICO



LORRELL BUSH
Regional Manager

FLORIDA, PUERTO RICO

The 2015 Florida legislative session will be marked as a "can't believe it happened" session. Briefly, there is a huge divide between the Republican led Senate and the Republican led House over how Florida manages Medicare funding. The Senate's position is that additional Federal funding should be sought to offset Florida's Low Income People (LIP) Medicare benefits while the House has a position of revisiting LIP espousing concerns about Federal funding ending and Florida being stuck with hundreds of millions of dollars in LIP Medicare funding.

Typically when there is a conflict on an issue the Senate and the House focus on priority bills as a tradeoff - you support my bill on whatever subject and I will support your LIP funding bill. But this Medicare LIP funding divide is so deep there were no negotiations.

The House, aware that an agreement on Medicare LIP funding in the budget would not be reached before the May 1st end of the regular session, chose to leave early. Both the Senate and the House understand that a Special Session would be called to address budget issues including Medicare LIP Funding.

So what does this bizarre end to session mean for the fire sprinkler industry and remaining legislative priorities? Well, any bill that had not already passed in the House, ready to be taken up by the Senate and in a format agreeable to the Senate, was dead for this session. The few remaining bills that passed the House criteria were taken up by the Senate. For the most part, our hard work for the last couple months died when the House

abruptly ended early. To read more detail on the legislative update, visit www.floridafiresprinkler.com. ☎

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GREAT LAKES REGION

TBA

Regional Manager

INDIANA, MICHIGAN, OHIO,
WEST VIRGINIA, KENTUCKY

Sprinkler Save at Standard Register in Dayton, Ohio

According to Dayton District Chief Joe Meyers, bystanders saw smoke coming from the Standard Register Company complex and alerted authorities.

Crews forced their way inside Building No. 2 and found fire on the second floor in a graphic arts storage area where papers, ink products and other items were burning. The Chief stated that the sprinkler system suppressed the fire and did most of the work for fire crews and kept the damage to a minimum.

There were no injuries. ☎

ILLINOIS REGION



BOB TINUCCI
Regional Manager

ILLINOIS

The NFSA Illinois Chapter ITM Committee held an open forum panel discussion on the features of 3rd Party Reporting. The discussion covered the various advantages to assist in record keeping, routine inspections and to maintain NFPA 25 compliance for water-based fire protection systems. The panel was comprised of the following representatives:

Rich Ray

CYBOR FIRE PROTECTION

Mark Agostinho

UNITED STATES ALLIANCE FIRE PROTECTION

Matt Rice

BRYCER

Jill Cotton

IROL

Division Chief Ben DeAnda,

DOWNERS GROVE FIRE DEPARTMENT

Ashley Olenick,

DOWNERS GROVE FIRE DEPARTMENT

Heidi Arndorfer

LOMBARD FIRE DEPARTMENT

Bob Tinucci

NFSA's Regional Manager / Illinois

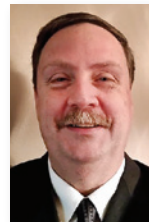
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WISCONSIN REGION



MARTY KING
State Coordinator

WISCONSIN

The state of Wisconsin legislators are in action with a budget bill and other bills for the spring 2015 Session. Some of the bills have implications to the fire sprinkler industry and fire safety in general. NFSA-Wisconsin Chapter lobbyist Martin Schreiber & Associates have been doing a great job dogging the in-committee and behind the doors activities that affect their varied clients.

The state Budget Bill is always a place to hide lobbyists' special interests and this spring's bill is no different. For instance, the apartment owners lobby attempted to get rid of any local community's requirement to retrofit fire sprinklers to the original apartment building when adding a percentage of new units for those buildings of twenty units or less. NFSA's lobbyist was able to get that language out of the budget bill. But the group has been persistent as they are working to get it through with a separate bill. The Chapter

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is working with fire service groups to fight this and any other non-fire safety initiatives. It appears to be another shot against fire protection as additional fallout to Act 270, which was passed two years ago. 📞

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NFSA's State Coordinator

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MINNESOTA REGION



TOM BRACE
Regional Manager

MINNESOTA

Sprinkler Save at Mall of America

The Bloomington Fire Department responded to a fire at Radisson Blu Mall of America. A fire inside a room on the 12th floor of the hotel had been contained by the building's sprinkler system. Firefighters worked for about an hour removing smoke and water from the 12th floor. No injuries were reported. 📞

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CENTRAL REGION

TBA

Regional Manager

IOWA, KANSAS, MISSOURI

Sprinkler Save in Webb City, Missouri

A sprinkler system controlled the spread of a fire in a Webb City, Missouri apartment building. Crews with the Webb City Fire Department responded to a fire alarm that was traced to a single apartment on the first floor, where firemen searched for occupants. They found the woman had left the apartment when she was awakened by the alarm and was safe in the lobby of the building. Firemen were able

to stop the fire quickly because the sprinkler system had prevented the blaze from spreading beyond the single apartment. The source of the blaze was found to be in the area of a medical oxygen concentrator. No injuries were reported.

SOUTH CENTRAL REGION



CYNTHIA GIEDRAITIS
Regional Manager

ARKANSAS, LOUISIANA,
OKLAHOMA, TEXAS

NFSA North Texas Chapter Board Members accepted their official NFSA Chapter Designation certificate from NFSA Vice President of Field Operations, **Jim Lake**, on May 20, 2015. Pictured are:



Chair **David Welcher**, Vice Chair **John Pecot**, Secretary **Dale Payne**, Board Officers at-Large **Jon Lopez**, & **Daniel Merritt** (Not Shown) Past Chair **Ricky Jackson** & Treasurer **Tate Hitzeman**

The next Chapter Meeting will be October 15 and will feature NFSA President Chief Shane Ray.

Cindy Giedraitis

NFSA's Regional Manager / South Central

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GREAT PLAINS REGION



ERIC GLEASON
Regional Manager

Colorado, Nebraska, North Dakota,
South Dakota, Utah, Wyoming

City of Centennial Adopts Requirement for Fire Sprinklers in Townhouses

With the support and hard work of the following individuals, the City of Centennial,

Colorado will now require fire sprinklers in townhouses and builders shall offer the systems in single family homes. Thanks to all who worked to educate and inform city officials as to the life- and property-saving attributes of fire sprinkler systems.

South Metro Fire Rescue Authority

Deputy Chief **Dell'Orfano**,

Fire Marshal **Valdez**,

Cunningham Fire District Chief Rhodes

and Fire Marshal **Everitt**...

and testifying on behalf of NFSA,

Regional Manager **Eric Gleason**.

Eric Gleason

NFSA's Regional Manager / Great Plains

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phone: 720.470.4894

SOUTHWEST REGION



BRUCE LECAIR

Associate Director of Regional
Operations - WEST

CALIFORNIA, HAWAII, NEW MEXICO, NEVADA,
ARIZONA

Sprinklers Help Contain Blaze At San Diego Senior Residential High-Rise

A fire erupted in a San Diego City Heights senior housing high-rise. The blaze began spreading on the seventh floor of the 10-story building according to the San Diego Fire-Rescue Department.

It took crews about 30 minutes to extinguish the flames, which appeared to have originated on or near an outdoor deck. The fire sprinkler system helped keep the blaze from rapidly spreading prior to the arrival of emergency personnel.

With the aid of the fire sprinkler system, firefighters were able to contain the fire to the unit where it originated.

No injuries were reported. 📞

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NORTHWEST REGION



SUZANNE MAYR
Regional Manager

ALASKA, IDAHO, MONTANA, OREGON,
WASHINGTON

Sprinklers Limit Impact of Fire at Western Oregon Mill

A flash fire broke out after hot metal fragments ignited wood dust at the West Oregon Wood Products mill in Columbia City on May 23, but there was no serious structural damage or injuries. Columbia River Fire & Rescue reported the fire was “largely controlled” by workers at the mill and the fire sprinklers. The mill returned to operations the following day.

Fire Sprinklers Extinguish Senior High Rise in Auburn, Washington

A fire on the sixth floor of a senior living apartment complex in Auburn the morning of May 21 was extinguished by the fire sprinkler system. The resulting smoke prompted officials to evacuate residents who were mobile, or “shelter in place” those with mobility issues. The cause of the fire is not yet known.

Fire Sprinklers Make “All The Difference” at Yakima, Washington Apartment Complex Fire

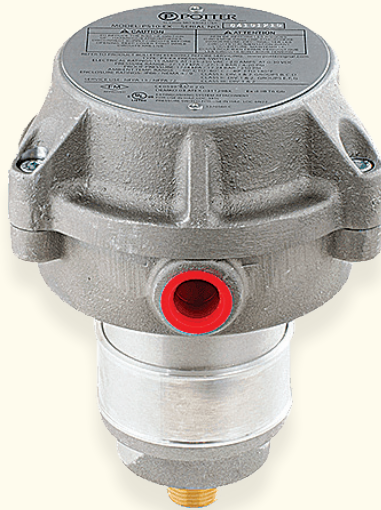
When firefighters responded to a May 12 apartment fire caused by a pan left unattended on the stove, they found water running off the building from an apartment window on the third floor. Smoke detectors alerted residents, who were able to safely evacuate. Firefighters told local media the fire “could have gone a lot differently, had there not been working smoke detectors and sprinklers.”

Suzanne Mayr

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Potter's PS-EX Series Explosion Proof Pressure Switches

The Potter PS40-EX Supervisory Pressure Actuated Switch is designed primarily to detect an increase and/or decrease from normal system pressure in automatic fire sprinkler systems located in hazardous locations classified as shown above. Typical applications are: Dry pipe systems, pre-action air/nitrogen supervision, pressure tanks, air supplies, and water supplies. The PS40-EX switch is factory set for 40 PSI (2,8 BAR) normal system pressure.



The switch marked with the word LOW is set to operate at a pressure decrease of 10 PSI (7 BAR) at 30 PSI (2,1 BAR). The switch marked with the word HIGH is set to operate at a pressure increase of 10 PSI (7 BAR) at 50 PSI (3,5 BAR).

The Potter PS10-EX Pressure Actuated Switch is designed for the detection of a waterflow condition in automatic fire sprinkler systems located in hazardous locations classified as shown above. Typical applications are: Wet pipe systems with alarm check valves, dry pipe, preaction, or deluge valves. The PS10-EX is also suitable to provide a low pressure supervisory signal; adjustable between 4 and 20 psi (0,27 and 1,3 BAR).

UNIQUE FEATURES

- Independent switch adjustment allows for the adjustment of one switch with-

out affecting the other

- Pressure adjustments are accessible without removing explosion proof cover

CODES AND APPROVALS

- UL, cUL, FM, CSFM, NYMEA, CENELEC, ATEX
- Class I Division 1 & 2 Groups B, C, D. Class II Division 1 & 2 Groups E, F, G. Class III Division 1 & 2
- NEMA 4 Weatherproof enclosure
- Complies with all applicable service requirements of NFPA 13, 72

ENGINEERING SPECIFICATIONS

Waterflow Alarm Pressure Switch For Use In Hazardous Locations: UL Listed/FM Approved Waterflow alarm pressure switch shall be furnished and installed at each sprinkler system connection to the dry pipe alarm port where indicated on the drawings, and as required by NFPA Standards. Waterflow pressure switch shall be capable of operation in system pressures up to 250 PSI, and shall operate on increasing pressure at the alarm port to 6 PSI. Switch configuration shall consist of two sets of single pole double throw (S.P.D.T.) Form C synchronized sets of contacts rated at 15A, 125 VAC and 2A, 24 VDC. The switch shall employ independent pressure elements for each switch. Switch enclosure shall be suitable for use in Class I Division 1 & 2 Groups B, C, D, Class II Division 1 & 2 Groups E, F, G, Class III Division 1 & 2 and the cover shall be held captive by tamper resistant screws or supervised for removal by a cover tamper switch. Pressure connection to the system shall be via 1/2 inch male NPT. All in line valves shall be electrically supervised for their fully open position. Waterflow alarm pressure switch shall be Model PS10-EX manufactured by Potter Electric Signal Company.

For additional questions, contact customer service: sales@pottersignal.com, or tech support: tech@pottersignal.com

Combustible Concealed Space Protection

The Newly Listed Model CC3 Combustible Concealed Space Sprinkler
4.2 and 5.6 K-factor, Specific Application, Upright

For the First Time
6" to 60" Depth
Protection Available

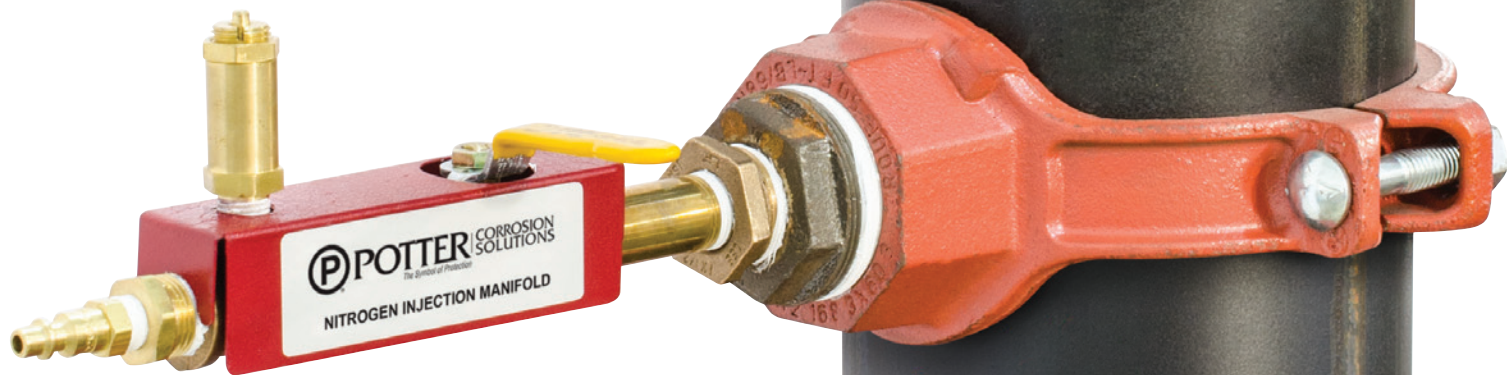
Industry Leading
16' x 16' Spacing
For All Depths and
Construction Types

Now Allowing
the Use of CPVC in
Combustible Concealed
Spaces **Up to 60"** Depth



Contact your local Tyco Fire Protection Products representative
to request additional product information.

The benefits of **Potter Nitrogen** now for **Wet Systems**



Reduce costly corrosion and extend the life of your fire protection system!

The Potter AquaN2 Kit is designed to quickly remove oxygen from your wet-pipe system while replacing it with high purity nitrogen in order to reduce corrosion. Using Potter Nitrogen products, you can expand your services to protect both dry **and wet systems** from harmful corrosion.

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