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The Flagship Publication of The National Fire Sprinkler Association

November – December 2019
No. 217

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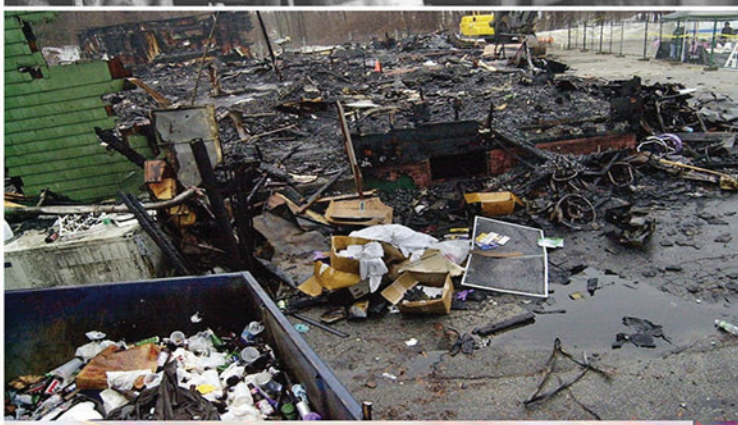

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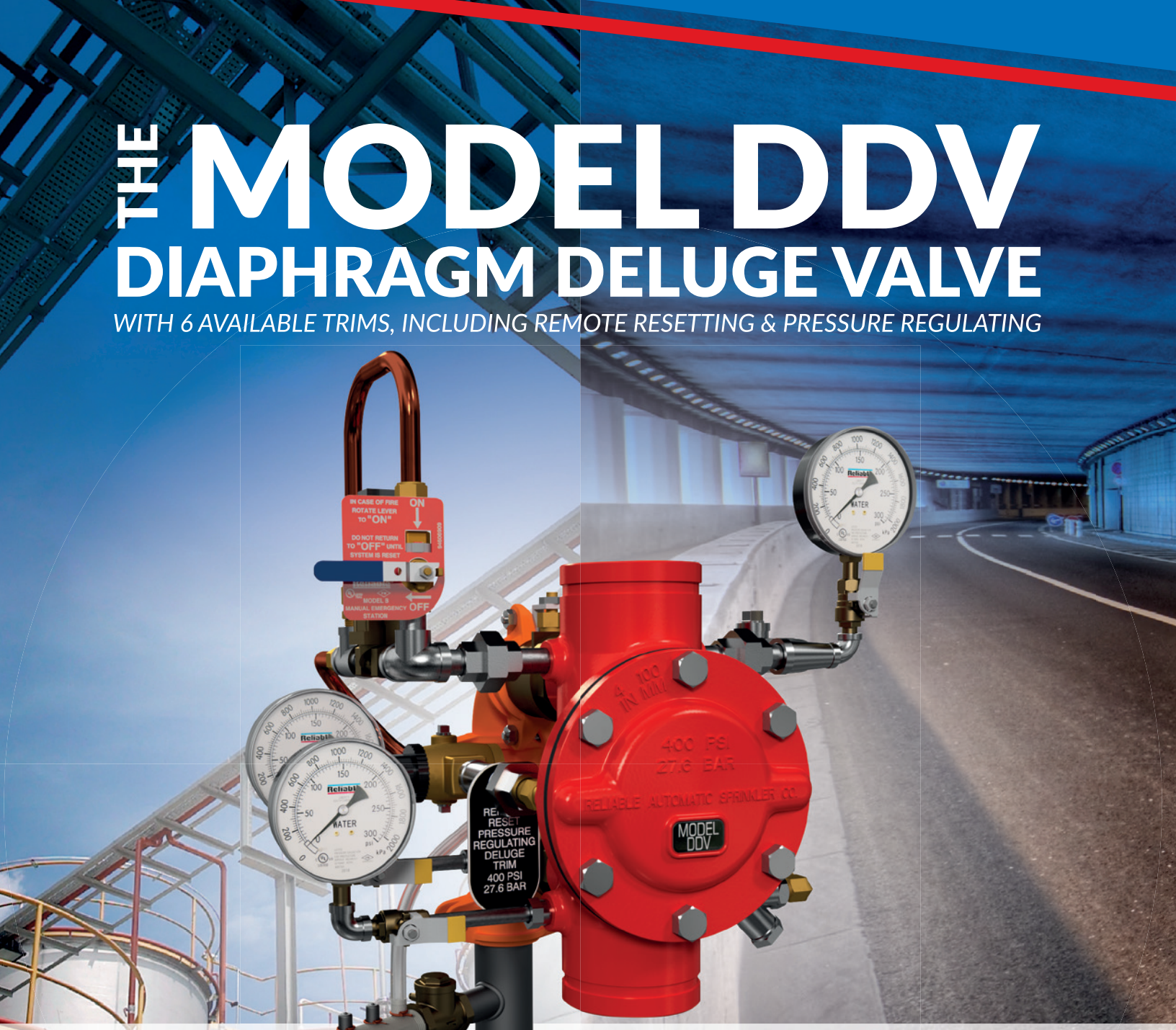

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ON THE COVER

As 2019 ends, NFSA looks back with pride on its 124-year mission to protect lives and property from fire through the wide-spread acceptance of the fire sprinkler concept. We've come a long way, and there's still a way to go. We've got work to do. Here's to 2020 and beyond!

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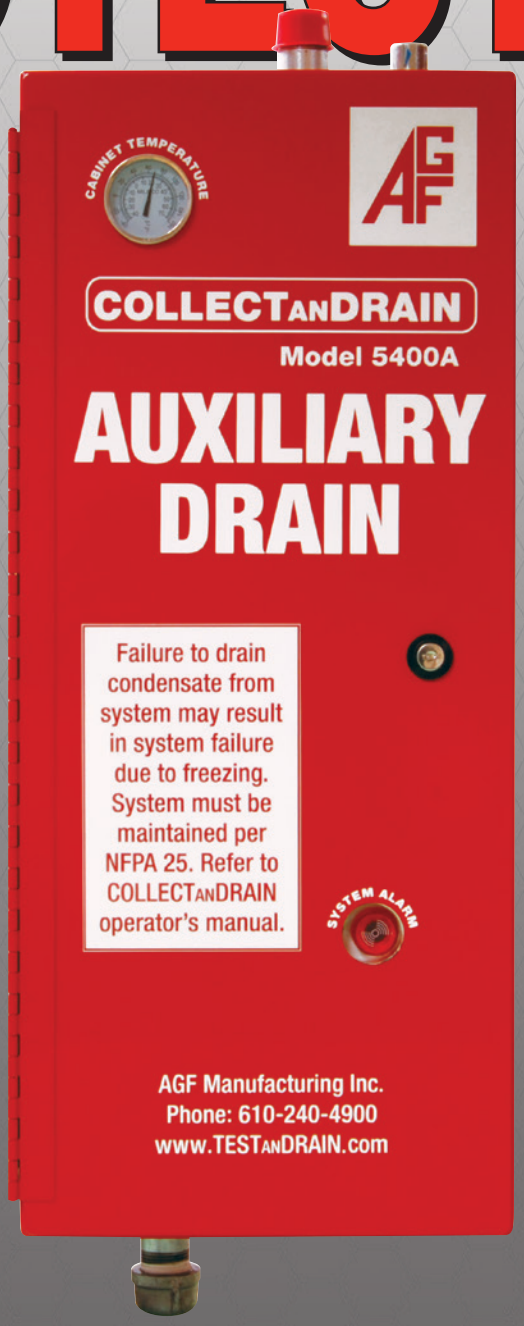

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A Glance Back, A Look Forward

I recently celebrated five years of being back with NFSA, and we recently completed the meeting of the Executive and Finance Committee in preparing the 2020 budget/operations plan. I can't help but pause to reflect on those five years and the progress we've made. The progress was possible because of the past and the present, all driven by a strong Board of Directors. I am blessed to work with Board Members who dedicate and commit so much time and resources to the fire sprinkler industry. Thank you to those who serve our great Association and thank you to the Board for your continued support of me and our team.

In the past five years, we have had a successful and positive transfer of roles, as you recently read of the progress with IFSA from Russ Fleming in the Member Takeover edition. I appreciate Russ Fleming for his continued support of this industry and me. I'm happy to say that Russ is still an active part of our team here at NFSA. Many of you have probably enjoyed an EOD answered by Russ or Ken Isman. We are so glad to have both of them helping us with that member service.

As I look forward for our Association and the fire sprinkler industry as a whole, I realize the years of laying a good foundation has positioned us to do even bigger things. The past five years has brought many new teammates and programs. 2020 will see more new team members and enhanced programs as we work to continue defending and promoting the industry while improving our member services. We are excited about new training programs, expanding Fire Team NFSA to more states, and a new membership database and association management system.

"Thank you to those who serve our great Association and thank you to the Board for your continued support of me and our team."

Our marketing campaign is in full swing and we will continue to expand on it with a new commercial and continued placements of *"What Used To Be."* We are going to be at the International Builders Show (IBS) for the first time on our own, thanks to the vision of Chair Kent Mezaros, who attended the IBS in 2019. This engagement is occurring on a regional level with the Atlantic Builders Convention, the Southeastern Builders Convention, which our Florida Chapter attended for the first time in 2019 and will continue, as well as the Pacific Coast Builders Convention, which includes some of the largest builders in the country. This will help us build relationships with builders, as Common Voices reminds us of the importance of "non-traditional partners." This is also building on and continuing the vision of our past Chair of the Board, Larry Thau, and his push to "turn adversaries to allies." We have worked extremely hard and made progress on this with BOMA (Building Owners and Managers Association) in our high-rise retrofit efforts with tax incentives.

Most of all, we want to celebrate you, our members. It has been an honor to visit our Chapters and our IP (Industry Promotion) Committees across the country. As I learn more about you and your companies, the more I love our industry and the great people who give so much to it. I will continue promoting this industry with all the passion and commitment within me and I look forward to visiting all NFSA members over the course of time.

I hope that this holiday season allows you time with family and friends and lots of good times together. As an association, know that we are focused on creating greater member value and more member engagement.

If you have an idea to share, or a need — please reach out to me or our Board Chair, who really does mean it when he says we want to hear from members! •

Shane Ray, *President*

From the Chairman's Desk
Kent Mezaros

'Tis the Season

Yes, it's true, the holiday season is upon us. If you close your eyes you can smell the turkey in the oven. Ah, football playing on the TV in the background, overindulging on everything placed in front of, or strategically placed around us, and maybe a nice glass of vino (or a Miller Lite?) to bring the whole thing together. Just waiting for the tryptophan induced coma that will soon follow. Surrounded by family and friends - Thanksgiving is a wonderful way to get the holiday season started.

For those of us living in parts of the country subject to freezing temperatures it is also that dreaded time of the year that we all start thinking of…freeze-ups. Okay, I'm not trying to be an alarmist here, and maybe when you're done reading this article you should rip it out and eat it so it never slips into some evil hands only to be used against us in the future. This is just a public service announcement from yours truly because we all know there's nothing worse than to get that beautiful holiday afternoon, or some badly needed REM sleep interrupted by the dreaded emergency freeze-up call.

So, what can we, as contractors, do to help make sure that we can keep those calls to a minimum this holiday season? Well first things first, it helps to make sure that all of those dry systems we are installing are pitched properly, correct? I know the audience reading this employs good quality sprinkler fitters and equips each and every one of them with a working level, and maybe even instructs them on how to work and read that level, but I figured I'd start out with the easy stuff. A good practice would also be to have a project manager or some other upper level management check on these systems at time of install to make sure the work was done properly. Any drum-drips that were added should be clearly marked on a set of plans and given to the building owner with instructions on what their maintenance people are responsible for in taking care of these systems.

Speaking of drum-drips it's a great time to visit those properties you have inspection, service and maintenance agreements for and service them. Also, if you haven't already done so, consider upselling some of the awesome products AGF offers to idiot proof them. Sometimes it's hard to get our customers to be proactive in purchasing these products, but they are sure quick to make the plunge after an extremely cold season or a newly hired maintenance person at the facility that didn't know maintaining these were in his or her job description.

For customers that have anti-freeze systems please make sure you've tested their freeze protection levels by now. If not, now is the time to do so.

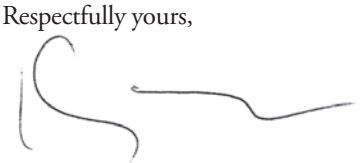
Communication with your customers at this time of year is key. Year after year we see many of the same issues occur. Those sprinkler valve room closets on the outside of those apartment/condo buildings with the small electric heaters in them – they are always subject to being problems. Those heaters may have died or aren't turned on, the doors may not properly close or get left open. It's also a good idea to have some of the backflow preventers you used on those systems in stock because they can often freeze and crack once that valve room becomes subject to freezing temperatures.

A friendly email reminder to your customers this time of year will often do the trick. It will put them on notice to communicate with their maintenance people and tenants. Their snowbird tenants who travel to the nice warm areas this time of the year need to leave their heat on to at least a minimal level so they don't cause damage to their own unit or even worse to the poor unsuspecting people below them. Same goes for those who may own homes protected by sprinkler systems with the piping properly insulated to protect it from freezing – it will only work if the heat is on!

I'm sure there are other steps you already take to help protect yourself from and proactively prevent system freeze ups for you and your customers. Incorporate these ideas into some kind of annual plan, and if you haven't already done so – roll them out now!

I again remind you that I'm honored to serve our members and industry and encourage you to please reach out to me to share any thoughts and ideas you may have to make us better. Here's wishing all of us a safe and happy holiday season. Please take the time to properly enjoy it. We'll speak again in 2020! •

Respectfully yours,



Kent Mezaros, *Chairman*

10 Amazing Google Hacks to Boost Your Productivity

by Ananya Pani

Google is a life-saver. No two ways about it. As a professional, Google has invaluable features including, but not in the least limited to, its search function, stocks, and its advertising clout. However, there is so much more it is capable of, that most of us are barely scratching the surface.

Here are some nifty little tricks we have gathered through the years:

1. Type using your voice (No more strained fingers)

Sure, we've all used Google search on our phones, and we know it has a fantastic voice search function. But, this feature can do so much more. Google Docs (the cloud-based version of a text editor) is becoming more powerful by the day, and as part of its features, is voice-based typing. With a few weeks of practice, the AI is capable of flawlessly understanding human speech, whatever your accent may be. As a fun tidbit, this article has been written by using voice typing!

2. Timer: Know when to get back after a break

Google has a calendar that is used extensively by professionals. However, in their bid to replace offline apps with cloud-based real-time systems, the software behemoth has introduced a tiny, but extremely useful widget in the form of the timer feature. Capable of counting down, it is handy to keep track of time leading up to a meeting or the recommencement of a professional appointment after a break. Just search for "Timer" in the Google search bar to access this feature.

3. Calculator: Calculate on the fly

Another applet introduced by Google is the calculator feature, removing the need for an external app. Just Google the calculation you need to be done, and the website is capable of handling arithmetic, percentages, or almost any other calculation that is performed by professionals.

4. Conversions: Convert on the fly

Dealing with international transactions is often a troublesome affair, due to the simple reason that currencies fluctuate in value with respect to each other. Google offers real-time conversion from one currency to another. Let's say you need to know the value of 16.50 pounds in American dollars. All you have to do is type "Convert 16.5 GBP to USD" in the search bar.

5. Draw perfect pictures - You don't have to be an artist

Autodraw.com is a nifty little website for when you wanted to illustrate your articles, but just couldn't find the right clip-art/stock image. By drawing a very rough version of the image in mind, you will get cute little clip arts that suit your purpose just fine.

6. Language translation: Be a pro in multiple languages

Google translate is already the most reliable option for tourists in a foreign country for translation to the native language. However, most professionals are yet to realize that this software has an extremely significant application in their respective fields. It provides a quick and efficient way of translating any blog/article that has already been written, into another prominent language, such as Spanish, for example, greatly widening the target audience.

7. Store documents: No fear of disk crash

We all keep important documents and drafts on our computers or hard disk drives. However, there are significant risks in doing so. Loss or damage of the storage medium will lead to a loss of the data too. Hence, a software widely recommended today is Google Drive, which is a cloud-based document storage medium. You don't even need the storage medium to work with the documents, since it can be accessed by any device with an internet connection. As an added bonus, it makes the sharing of any of these documents incredibly easy, and all you need to know is the recipient's email address.

8. Set reminders for special days: Save your marriage

As part of its calendar app, you can easily set reminders for the future from the Google app (for mobile) or website. All you have to do is type (or say out loud), "Set a reminder for " and enter in the name of the reminder and at what time you want to be reminded.

9. Flow chart: No worries if you don't have MS Visio

Free software is great, right? One little problem, though. There isn't too much of it on the internet. we have often been asked by BA aspirants, as well as others, on whether they have to purchase software to make flowcharts. The good part is, Google Docs handles all that. It allows us complete freedom in designing the charts, and is a quick and efficient way of making them.

10. Mind-maps: Impress your colleagues

The same goes with mind maps, another resource that is widely used by BAs and other professionals. Luckily, Google Docs is our savior once again

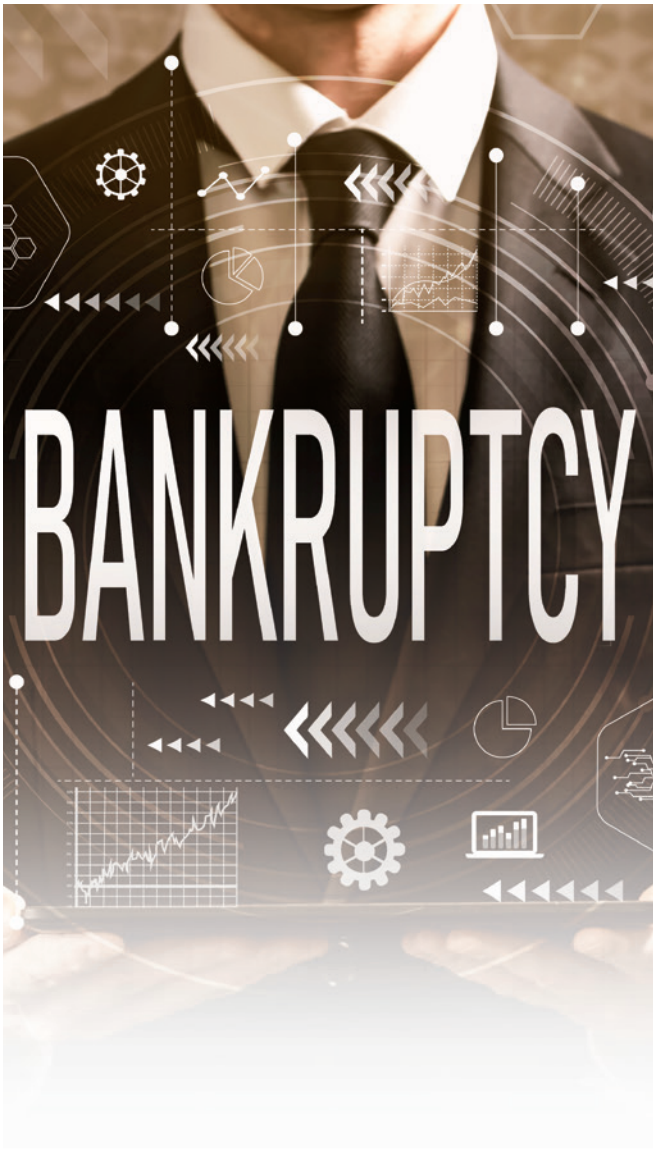
Oh Google, what would we do without you? •

Article Source: https://EzineArticles.com/expert/Ananya_Pani/2555107

Bankruptcy

by Stuart Zisholtz

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



In the era of online shopping, many retail stores and businesses are feeling the economic crunch. Retailers are closing all or large portions of their stores.

Bankruptcy filings are on the rise. Retailers are taking advantage of Chapter 11 proceedings in order to obtain a fresh start in dealing with the various creditors. Many retailers first try and seek out their creditors to negotiate a reduced payment schedule in order to avoid bankruptcy. However, bankruptcy seems to be inevitable for many of these businesses and retailers.

For creditors, bankruptcy could be a nightmare. Besides being a possible unsecured creditor, there are provisions in the Bankruptcy Code which address preference payments. These preference payments are funds remitted to a creditor within 90 days prior to the bankruptcy filing which must be returned to the bankruptcy estate. Thus, if you receive $100,000 within 90 days from the bankruptcy filing and the trustee deems it a preference, the creditor must return the funds. There are defenses to a preference claim but those issues are for another article.

With respect to the construction industry, a creditor can file a Mechanic's Lien once a bankruptcy is filed. The lien secures the debt. In addition, the creditor may have a trust violation claim under the Lien Law which would allow for a personal liability against the debtor's principals. However, a claim against the bankrupt debtor cannot be commenced due to the automatic stay associated with the Bankruptcy Code.

The key aspect to any bankruptcy is knowing how to proceed. If you are in a position where you need to file a bankruptcy, you need to understand the ramifications associated with the filing. As a creditor, you need to understand your rights and obligations in order to protect your receivable. •

1951 Civil Defense Test
New York City Fire Department demonstrating how quick and easy Victaulic piping systems are assembled.

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Chairman, President and CEO

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Potential Changes of Significance to the 2022 Edition of NFPA 13

by Mark Hopkins P.E., NFSA's V.P. of Engineering

The first draft meetings for the Annual 2021 cycle leading to the 2022 edition of NFPA 13 were recently held in Indianapolis, Indiana this past August. NFSA staff and Engineering and Standards (E&S) Committee representatives actively participated in all of the meetings. Many of the public inputs (PIs) submitted during this cycle were focused on correcting issues relating to the reorganization of the 2019 edition of NFPA 13. There were also some PIs that were accepted as first draft revisions (FRs) which could have significant impact on sprinkler system design criteria and limitations. However, these FRs will not become official changes to the document until they have successfully passed ballot by the corresponding NFPA 13 Technical Committees. Several issues were selected for discussion in this article, which include:

1) Single point densities
2) Protection options for commodities in cartons
3) Protection for rack storage of exposed nonexpanded group A plastics

Single Point Density

A global PI (No. 125) was submitted to remove the area/density curves for protection using the occupancy fire hazard control approach as well as the control mode density area (CMDA) curves from Chapter 21. This concept was first introduced during the 2001 development cycle and was accepted by the technical committee at that time. However, the changes were overturned during the annual meeting.

Although the terminology, single point density, is not exactly an accurate description of the concept, it gets to the point. The purpose of this proposed change is to eliminate the area density curves, leaving only the data points found at the bottom right side of the curves along with densities corresponding to a 3,000 sq. ft. design area which would be used when unprotected combustible concealed spaces exist. The area density curves will still remain in the standard for existing systems. A new table *(next column)* was introduced to summarize the requirements.

In general, the majority of sprinkler system designs are based on the information provided at the bottom right side of the curves which provide the most cost effective and least demanding flow requirements since they are based on the smallest areas.

A similar approach was taken to consolidate the storage curves for CMDA applications. A table was introduced for CMDA storage applications between 12 and 30 ft. in height providing densities for use with ordinary temperature and high temperature rated sprinklers. Additional tables were added to address rack storage applications.

The concept was accepted by the Discharge Committee and an FR was made with support from the NFSA E & S representatives.

Occupancy Hazard	Density/Area (gpm/ft²/ft²)
Light	0.1/1,500 or 0.07/3,000
Ordinary Hazard Group 1	0.15/1,500 or 0.12/3,000
Ordinary Hazard Group 2	0.2/1,500 or 0.17/3,000
Extra Hazard Group 1	0.3/2,500 or 0.28/3,000
Extra Hazard Group 2	0.4/1,500 or 0.38/3,000

Protection of Commodities in Cartons

During the pre-first draft meeting of the Discharge Committee held in Quincy, Massachusetts this past July, an issue was raised by FM Global representatives regarding the change in fire performance of commodities and a need to revise protection requirements. Specifically, the issue of cardboard cartons was brought up for discussion since it had been identified by FM Global there was a noticeable difference in the performance of commodities in cartons during fire testing. The issue was actually identified well over a decade ago and was presented at the NFPA Conference and Expo in Orlando, Florida in 2006.

Testing in the late 1960's and early 1970's led to the development of the Class I, II, III and IV commodity classifications and protection requirements which were introduced into NFPA 231 and 231C. These requirements currently reside in Chapter 21 of NFPA 13-2019 under the CMDA requirements. Obviously, testing continued to evolve throughout the past 50 or so years. In fact, testing of commodities continues today at both UL and FM Global.

Since the 2000's, the Fire Products Calorimeter (FPC) classification method has been used to classify commodities. The product is burned under a large-scale calorimeter and ranked based upon its convective heat release rate, "effective" convective heat release rate, total heat release rate, and integrated convective energy. Testing is also done to compare the fire performance of a product to water delivered at the various rates applying to different commodity

continued on page 14

continued from page 13

classifications.

The idea of using cardboard to slow fire spread and improve fire performance has existed in the standard for decades. Cardboard was found to have good water absorption which acted to protect the commodities within the cartons from fire involvement while also limiting fire spread within an array or across an aisle. Protection requirements were developed for Group A plastics in both exposed and cartoned arrangements.

The issue identified by FM Global centers around changes in the production of carboard using reclaimed materials and plasticizers which prevent the cardboard from absorbing water. In fact, these new types of cartons having plasticizers shed water much like is observed for encapsulated products (wrapping of commodities around the sides and the top). The newer types of cardboard cartons often have a shiny appearance such as those used for packaging of electronics. Theses cartons might aide in protecting the contents from water damage during shipping but now we are told will also prevent sprinklers from doing their job.

The causes of the fire behavior change have been attributed to different glue and sizing agents as well as increased recycle content. This change in performance reportedly impacts the ability for sprinklers to control or suppress a fire involving these cardboard cartons based on current NFPA 13 requirements. A Committee FR was made to treat cardboard cartons as encapsulated storage, thus significantly increasing the protection requirements for storage in cartons. For example, section 21.4.2.2 requires CMDA protection to include a 25% increase in density for encapsulated storage in racks over 25 ft in height. The changes in manufacturing of cardboard have led to substantial reduction of water absorption by the cartons which means that pre-wetting of adjacent fuel items will be reduced, and fire growth increased.

The primary concern is that more sprinklers will operate than are contemplated in the design of the sprinkler system, especially when CMDA sprinklers are used. This is significant because many systems have been designed and installed to the current and prior requirements over the past 50 years.

An FR (No. 1257) was created for to the 2022 edition of NFPA 13 adding section 20.3.1.5 which states,

> ***"Storage in carboard cartons shall be treated as enscapsulated storage in this standard where criteria is more stringent for encapsulated storage than for nonencapulated storage."***

Although this change has not been balloted at the time this article was written, the Discharge Committee strongly supported this change. However, some members are questioning if this change must be made globally or if consideration should be given to the type of cardboard used. For the latter option, there would be additional decision making required during the design of sprinkler systems and enforcement required to ensure compliance by owners and tenants as a result. If the change is made as submitted, there would be concern regarding existing installations which will need to be addressed by the Discharge Committee. We are also left with the question of whether a technical interim amendment (TIA) is warranted for existing systems.

Protection for Rack Storage of Exposed Nonexpanded Group A Plastics

Protection for rack storage of exposed nonexpanded Group A plastics at or above 30 ft in height was identified by FM Global as being inadequate. Testing used to develop the ESFR sprinkler in the 1990's used a fire ignition location centered between the transverse and longitudinal flue spaces. However, contemporary testing uses an offset fire ignition location which places the fire in the transverse flue centered between the face of the rack and the longitudinal flue. This essentially moves the ignition location by approximately 2 ft. While this does not sound significant, it was reported as causing a delay in the operation of the first sprinkler by approximately 45 seconds.

The concept of ESFR sprinklers relies on "early" sprinkler response as implied by its very name. Delay in response results in increased fire growth, higher temperatures and an overall larger challenge. FM Global conducted comparative tests using the offset ignition locations to the centered ignition locations. The results indicated that current protection requirements for rack storage of exposed nonexpanded Group A plastics at or above 30 ft. in height are inadequate. This does not mean that existing systems are impaired, but it does suggest that there are some scenarios where the existing protection requirements will not provide an acceptable level of performance.

A first revision has been accepted to modify Tables 23.4.2, and 23.6.1 based on PI No. 63 with additional supporting information provided by FM Global. The report titled, *"ESFR Sprinkler Protection of Exposed Nonexpanded Group A Plastics for Ceilings over 30 ft and up to 40 ft High,"* was submitted for consideration by the technical committee. The report also suggested changes to Table 23.8 for rubber tire storage but this change was not accepted by the technical committee at the first draft meeting. This report is publicly available for download from FM Global's website.

Current requirements in NFPA 13-2019 Table 23.6.1 permit the use of K14 ESFR sprinklers at 75 psi for storage up to 30 ft in height and K16.8 ESFR sprinklers at 52 psi for storage up to 35 ft in height. Options using K14 and K17 sprinklers have been removed from the table for storage heights of 30 ft and above as part of this FR.

Options using K22 and K25 sprinklers have increased pressure requirements based on this proposed FR. Testing demonstrated that the existing options using K22 and K25 sprinklers operating at 40 to 50 psi would be inadequate for protection based on the offset ignition scenario. The first revision increased the pressure requirement for K25 sprinklers to 60 psi, and the pressure requirement for K22 sprinklers to 75 psi. In addition, a committee first revision was proposed to remove all references to 32 ft elevations in Chapter 23. If the committee accepts this first revision, there would be concern regarding existing installations which may require retroactive TIAs.

Please let me know your thoughts on these potential changes to the 2022 edition of NFPA 13 since they could have significant impact on our industry.•

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60 Years of Model Code Involvement

by Jeffrey M. Hugo, CBO, Director of Codes and Public Fire Protection

"'Where've you been for the last forty years?' That's how a crusty old building official put the question to us a few years ago." This quote comes from a publication in the late 1960s, written by NFSA's Raymond Casey who served as the Association Executive Director and President from 1952 to 1978. Casey further states, "The sprinkler industry had neglected the building code congresses until 1960." Looking back over the history of building codes in the U.S., and the development of NFPA 13 since 1896, it is hard to grasp that it took about 60 years for the sprinkler industry to get the model codes in tune with the sprinkler standard. 60 years seems to be the magic number, because the NFSA has been heavily involved since Casey's leadership in 1960 to today. Early work done by the NFSA and allies is pivotal for the shape of the fire sprinkler influence in today's model codes.

During the 20th century, the U.S. model building code market grew from, and alongside, city codes. Iconic metro cities, like New York, Boston, and Chicago have had city building codes well back into the late 1800s. Model code publishers started developing "ready for adoption" building codes. The BOCA building code developed by the Building Officials and Code Administrators (BOCA) was the first model building code in the US in 1915. It is widely adopted and used in the northeast of the U.S. The Uniform Building Code (UBC, developed by the International Council of Building Officials (ICBO), was another model building code in 1927. The UBC was widely used by western U.S. states. The Standard Building Code (SBC) developed by the Southern Building Code Congress International (SBCCI) started in the 1940's and was primarily in the southern US states. All three of these model codes were combined into the International Code Council's (ICC) first model code, the International Building Code (IBC) in 2000.

Fire protection in building codes of the first 60 years of the 1900s is primarily passive. We see in all three model codes pulled from the earlier city codes the concept of compartmentalization. This can be likened to today's fire area practice in the IBC. Compartmentalization (and fire areas) is using fire-rated floors, walls and ceilings in limited areas to limit the spread of fire. Typically, compartments ranged from 6,000 to 20,000 sq. ft.; compartments and a building would be divided into several compartments. When a fire occurred, it would have the compartment to burn out with the remainder of the building protected by fire-rated walls, floors and ceilings. As so many deadly fires all through our history have proved, it didn't work well. In the mind's eye, it's an oven, but like an oven, the door can be opened allowing heat (and smoke) to spread. So many passive fire protection failures can be attributed to propped open doors and lack of duct or piping penetration protection, quickly spreading smoke and fire from one compartment to another.

We start to see fire sprinklers being used by the model codes around 1960. This isn't to say fire sprinklers were not used earlier, as fire sprinklers have been installed in buildings since the 1880s. However, as Raymond Casey reported, this is about the time the NFSA got involved in the model building code arenas. He convinced the NFSA (at that time it is the National Automatic Sprinkler and Fire Control Association) Board that sprinklers needed the model code market to drive sprinklers and participation in the model code arena. Up until that time, fire sprinkler installations were driven by the insurance industry. Casey saw the model codes as the next market for sprinklers. Nursing homes first saw sprinklers in the 1967 NFPA 101 Life Safety Code through several years of advocacy from nursing and hospital associations as well as the U.S. federal government. The movement for sprinklers in model codes got a boost in the late 1960s and early 1970s. This is attributed to the research and development of the *America Burning* document. Fire deaths across the U.S. got the notice of President Richard Nixon, who appointed a National Commission on Fire Prevention and Control to investigate methods to report and reduce the number of fire deaths to citizens and firefighters. More emphasis was needed on US fire prevention, fire services training, public education of fire safety with fire research and data which was neglected or nonexistent. America Burning released in 1973, did three major things for fire sprinklers in model codes:

1. All local governmental units in the United States were to have an adequate building code and fire prevention code.

2. Model codes should specify automatic fire sprinkler systems and early-warning detectors for high-rise buildings and for low-rise buildings in which many people congregate.

3. Automatic sprinkler protection required in all facilities for the care and housing of the elderly.

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The fire sprinkler tradeoff, or as we like to say, the tradeup (trading up for life safety and property protection), is a new fire protection concept in the model codes starting in the early 1970s. The tradeup is an exception in the model codes that typically exchanges a fire-rated passive material for active fire sprinkler protection. In 1971, the SBCCI allowed sprinklers to reduce the structural fire-rating of high-rise offices by one-hour (a tradeup that remains today in the IBC). By 1974, sprinklers are recognized as alternatives for high-rises. The 1973 UBC and 1974 BOCA and SBCCI allowed fire sprinklers in high-rises to eliminate fire-rated compartments, reduce fire-proofing ratings by one-hour, increase travel distance from 150 feet to 300 feet, decrease interior flame spread classifications, reduce fire flow and eliminate fire dampers. Sound familiar? It should, as all these tradeups are widespread and applicable in today's IBC for many buildings and occupancies.

The 1980s continued to increase the fire sprinkler successes and market. Some of the most common building features we see today were permitted just because of sprinklers. For example, the atrium. The 1981 NFPA 101, Life Safety Code finally allowed vertical openings (atriums) in buildings if they were fully sprinklered. The atrium sprinkler requirements and installation rules in the IBC Section 406, such as the positioning and glazing protection, comes from the 1981 NFPA 101. The NFSA E&S committee (a huge part of codes and sprinklers since 1946) established a Building Code Committee in the early 1980s to assign representatives and develop strategy for BOCA, SBCCI, ICBO and NFPA model codes. This group has some very familiar names still active today, such as Russ Fleming and Jack Thacker. They are largely responsible for the advancement of fire sprinkler tradeups and acceptance in model codes such as high-rise retrofit in existing business, high-rises in the 1981 NFPA 101, and existing residential high-rise in the 1997 NFPA 101, Life Safety Code.

Daunting for design professionals

The number of tradeups and the varying application and tracking through all the four major model codes was daunting for design professionals. In 1973, the NFSA produced, *The Architects and Engineers Guide to Automatic Sprinkler Provisions and Building Codes*, to assist architects in navigating model code fire sprinkler tradeups. This guide followed revisions and changes for the past 40 years in model codes and is known today as the *Fire Sprinkler Guide*. The current *Fire Sprinkler Guide* addresses the more than 125 tradeups in the IBC and is a popular NFSA publication for architects, fire sprinkler layout technicians and code officials.

Since the publication of the 2000 IBC, the drive for fire sprinkler acceptance and tradeups has continued. In 2003, all new multi-family housing (apartments, condos, hotels) are required to have fire sprinklers. In 2006, the NFPA 101, Life Safety Code and NFPA 1, Fire Code required assembly occupancies to be retrofitted with fire sprinklers after the Station Nightclub fire. In 2009, fire sprinklers were required in all new single and two-family homes in the International Residential Code (IRC). In the 2018 edition, the International Fire Code (IFC) requires fire sprinklers to be retrofitted in all A-2 occupancies and the 2021 IFC will require fire sprinklers in all existing high-rises over 120 ft.

The NFSA, 60 years after getting involved in the model code arenas, and 123 years after the first NFPA 13 standard, is still heavily involved in the development of all ICC and NFPA model codes as well as legislative and regulatory changes in every state. Barely 40 years ago, active fire protection got its first tradeup in a model code, today there are over 125 in the IBC. 40 years ago, fire sprinklers were barely an option in new construction, today, fire sprinklers are required in all new construction such as in: residential, institutional, and high hazard. Compartmentalization, or fire area thresholds still exist, typically at 12,000 sq.ft. for mercantile, schools, and storage buildings, however most of these buildings are sprinklered when built new today. The early work done by the NFSA and allies shaped the future of fire sprinkler acceptance in today's model codes.•

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Supply Chain Savvy: 5 tips to get the most value out of the wholesale distributor

By the Core & Main Fire Protection Team

If you are getting ready to partner with a distributor, it's important to know how to get the most out the relationship. A distributor offers the contractor access to a wide variety of products, services and equipment, and most importantly, peace of mind. At **Core & Main Fire Protection**, the true value we provide to our vendors and contractors, is through our associates. Our goal is to help customers work smarter, not harder. Core & Main offers decades of experience, ranging from the largest to the smallest jobs. The team uses that experience to help you find ways to get the job done on time with the right products—and that begins with a close relationship.

1. Never underestimate the value of good communication, early on. "We want to facilitate a seamless channel of products and services throughout the duration of the project, from the design-build phase to final installation," said Derek Allen, regional director-West at Core & Main Fire Protection. Constant communication is a key component to fulfilling that commitment. It starts by asking the right questions, anticipating customer needs, and being proactive, so customers can focus on running their business. "Our team at Core & Main has the local expertise on a wide range of products. We help our customers find the best solutions, which includes the most efficient products and services to meet their needs," said Allen. "Our entire team becomes an extension of our contractor partners. We accomplish this by understanding their business and becoming a valuable resource."
2. Ensure the distributor has local inventory to avoid delays and unnecessary costs. When Johnson Controls was seeking a partner for their fire protection material and fabrication needs on the Gaylord of the Rockies project (a 1,500-room hotel with a half-million square foot conference space in Aurora, Colo.) they chose Core & Main. At the time it was built, it was the largest hotel project under construction in the U.S. This three-year project was very time consuming and challenging for all involved. Core & Main coordinated daily with the design team for on-site fabrication, quick turnarounds and deliveries. Project schedules often changed, which required constant communication. "Fire Protection can be a fire drill," said Jerry Gunn, outside sales representative for Core & Main. The distributor's job is to keep the material flowing into the hands of the onsite team.
3. Your distributor should understand the scope of the project. Phil Valdez, project manager at Johnson Controls, believed the partnership of the entire local Core & Main team played a key role in ensuring that the building was completed on schedule. At any given time there were more than 30 fabrication packages in the system. As three were completed, four more would go into the queue. Core & Main fabricated approximately 40 miles of pipe, made more than 200 deliveries to the jobsite and provided approximately 18,000 sprinkler heads for the convention center project.
4. Look for expertise along with experience. The resort project went smoothly despite its size and complex nature. "We offered state-of-the-art solutions and seamless execution on this large project" said Gunn. The local Core & Main team brought many years of industry experience, which included their fabrication manager of 15 years and district manager of 20 years. Gunn added, "On projects this size everyone contributes, and that is what makes us better."
5. Regardless of the project size, the focus is the same. While the Gaylord Rockies Resort & Conference Center is an example of execution on a large-scale project, focus and dedication is needed on all projects, large or small. Every job is important to the contractor's success and we must provide a high-level of service. With our knowledgeable staff and local resources, Core & Main Fire Protection is ready for the unexpected and will do what it takes to get the job done right.

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NOTES FROM THE Fire Scene

Looking Up as We Reflect

by Vickie Pritchett, Director of Outreach & Government Relations

This time of the year provides us an opportunity to reflect on the past year, while being hopeful for the year to come. I am in that mood as I pen this edition of Notes from the Fire Scene.

Last month, in the member takeover issue, my daughter, Jenna, took over my column. I have to admit, I learned a few things by reading her article, and as her Mom I was indeed very proud. Listening to her describe "growing up looking up" I realized that our cause, our fire sprinkler industry, is one that people like to believe in. Some may even say we are easy to love! We are in the business of saving lives and protecting property. That is for sure something to be grateful for and excited about. Our work impacts lives, and we improve quality of life in communities across America by keeping people safe from fire. It just doesn't get any better than that!

So, during this season of Thanksgiving, I intentionally make the choice to say thank you to you as members of NFSA, and to your families, who support you as you work throughout the year to see our mission realized. You make a difference every day, with the product you install, make, or distribute, and you improve quality of life for those who occupy the buildings and homes protected, as well as all of your business teammates. I love hearing about holiday events within our industry, I'm always reminded that we are like one big family!

When I think about the year 2020, my heart is filled with hope. We have so much momentum from 2019, and your NFSA Leadership Team and entire Team NFSA is focused on making our vision "A Stronger Industry…A Safer World" real. We are committed to an Operational Plan that plans for growth in our service to you, our members, as well as new programs and services improved across the board. We do get up every day with the thought in mind of how can we serve better.

Our commercial, What Used to Be, made its national debut in October and we are very pleased with the analytics from that media buy and commercial run. We are in the planning stages for our next commercial and look forward to seeing this vision realized in 2020. We could not do these proactive pieces of our plan without the leadership and support of our Board of Directors. So, this Thanksgiving season, I want to say a special thank you to each and every member of our Board, Councils, and Committees. Your hard work does not go unnoticed, and you are helping NFSA focus on being an association that delivers for our members. We love to collaborate with you and are excited about many of the ideas coming out of the Committees and Councils. All of these ideas are helping us grow stronger.

I also want to ask you to mark your calendars for April 29-May 2, 2020. You don't want to miss our 2020 Business & Leadership Conference which is being held at the JW Marriott Desert Ridge Resort in Phoenix, Arizona. We are working to bring you an awesome line up of presenters and networking opportunities. I hope you're making plans to join us there!

My wish for you and your family in 2020 is one of health and prosperity. I trust that faith, family and friends ensure that your 2020 is off to a great start! Please let us know if there is anything you need from us as we focus on the future and work hard every day to promote the widespread acceptance of the fire sprinkler concept.

Cheers to 2020,

Vickie

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Exterior Deluge Systems on Historic Buildings

by Vince Powers, *NFSA's ITM Specialist*

The Maryland State House is the oldest capitol building in continuous legislative use. The building dates to 1772, housing the Maryland general assembly plus the offices of the governor and lieutenant governor. Construction began in 1772, but was not completed until 1797 due to the Revolutionary War. It was in the Old Senate Chamber that Washington resigned his commission as Commander-in-Chief of the Continental Army on December 23, 1783. It has the largest wooden dome in the U.S. constructed without nails. The dome is rounded with large rectangular windows, a cornice, a pediment, and a sloping roof that gives way for a central octagonal drum, atop it rests the larger dome. The large dome is topped by a balustraded balcony, another octagonal drum, and a lantern capped by a lightning rod. The rod was constructed and grounded according to the direct specifications of its inventor, Benjamin Franklin.

The exterior of the Maryland State House dome is protected by a deluge system and the interior of the dome is protected by a dry system. The exterior deluge system is electronically released using linear heat cable. The cable acts as a continuous heat detector, made of two conductors typically coated with a heat-sensitive thermoplastic polymer that melt at fixed temperatures. When the polymers melt the conductors contact each other and communicate with the fire alarm control panel to activate the deluge system. This system was retrofitted in the 1990s by Reliance Fire Protection located in Baltimore, Maryland.

On July 12, 2019 the NFSA was invited to witness the annual flow test of the deluge system. NFPA 25 requires an annual full flow test of deluge systems, and this one is no exception. During the flow test the question came up, "Why exposure protection? There is no inherent danger of fire from adjacent structures." That answer is quite simple, it's because of the history of this dome. In 2017, lightning struck the dome's linear heat cable, which caused the system to activate. After the strike, Maryland Department of General Services (DGS) replaced the wiring and installed a new control panel.

Accessing the upper dome is an interesting trek of interior circular stairs and a ladder that ascends to the uppermost access to change out the Maryland state flags. As we climbed the stairs to the dome there was a feeling of going back in time. Everywhere you looked there were names and dates of those who had previously made the ascent to the top. This is a tradition that dates to the construction of the dome. The earliest signatures I saw were as far back as the late 1800's, some claimed to have seen signatures from as far back as to when construction was completed in 1797. Think about some of the people who have walked through this building and have made the trek to the very top of the dome!

Thanks to Andra Shaw with the Maryland Department of General Service (DGS) for allowing us the opportunity to tour the Maryland State House, including the dome. Among other duties Andra is responsible for is ensuring that the fire protection systems are in compliance with applicable NFPA standards. I have been in the industry for a little over 21 years and have only been able to witness a full flow of a deluge system a handful of times, so that, coupled with the history of the building, was exciting to watch.•

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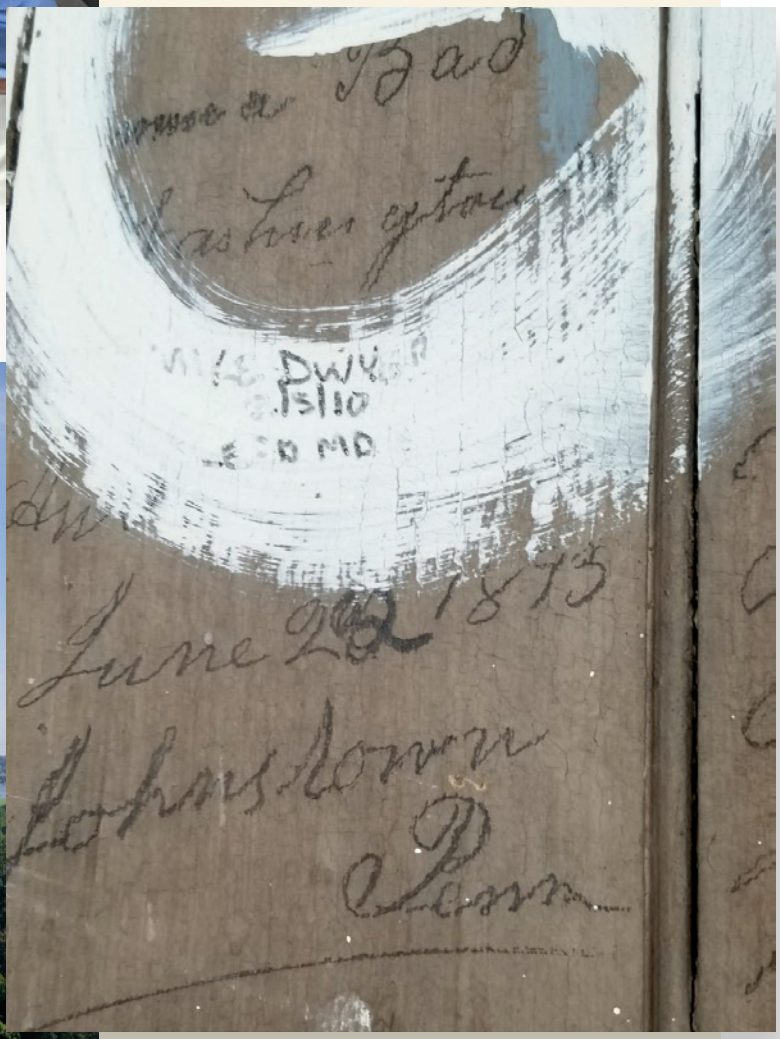

124 Years of Fire Sprinkler Standards

by Kevin Hall, P.E., Manager of Engineering Research

"Once you have an innovation culture, even those who are not scientists or engineers - poets, actors, journalists - they, as communities, embrace the meaning of what it is to be scientifically literate. They embrace the concept of an innovation culture. They vote in ways that promote it. They don't fight science and they don't fight technology."

—Neil deGrasse Tyson

The informed communities that Tyson references in his statement above represents the numerous volunteers that take part in the standard development process by serving on NFPA Technical Committees. Without the tireless efforts of all of these people, we would not be in the position that we are today to discuss the advancements in the fire sprinkler industry over the last 124 years. As a member of NFSA, your interests are substantially represented on numerous NFPA Technical Committees, as well as other organizations that advance the technology in the industry such as UL and SFPE.

Through the efforts of NFSA Staff and members of the Engineering and Standards Committee, our member's interests are represented on more than 78 NFPA Technical Committees. The evidence of a scientifically literate community was most evident in the recent NFPA 13 First Draft Meetings. After the substantial overhaul of the standard during the 2019 cycle, the committees were ready to address technical changes that were placed on the backburner due to the standard's reorganization. The following sections detail technical changes that the committees motioned to approve during the First Draft Meeting. They have not been balloted at the time this article was written, but these changes represent the scientific literacy of the fire protection industry and its aptitude for innovative change.

Electronically Activated Sprinklers

JCI/Tyco recently launched a listed electronic sprinkler. While there is still debate over the structure of specific design scheme requirements, the Installation and Discharge Committees were willing to accept the following definitions and basic provisions that were proposed for the 2022 edition of the standard:

3.3.XX Electrically Operated Sprinklers. *A sprinkler that is equipped with an integral means of activation using electricity [25, 2020]*

3.3.205.4.6 Electrically Activated Sprinklers. *A sprinkler equipped with an integral means of activation using electricity.*

15.6 Electrically Operated Sprinklers.

15.6.1 *Electrically Operated Sprinklers shall be permitted where such devices have been evaluated and listed for performance under the following conditions:*

1) *Fire tests related to the intended hazard*
2) *Distribution of the spray pattern with respect to wetting of floors and walls*
3) *Distribution of the spray pattern with respect to obstructions*
4) *Performance under horizontal or sloped ceilings*
5) *Area of design*
6) *Allowable clearance to ceilings*

There is plenty of work to iron out these requirements for the second draft, particularly the consistency of the terms used to describe these sprinklers (either Electrically Operated or Electrically Activated). The other aspect, and likely more import, is whether the standard should include design schemes or if these should remain as specific listing and manufacturer's requirements. Similar to CMSA and ESFR design concepts, Electrically Activated Sprinklers (EAS) operate a set number of sprinklers; however, there is a fundamental difference in response. CMSA and ESFR sprinklers require thermal activation of individual sprinklers while EAS are operated by a computer algorithm and actuators to create a deluge centered at the presumed fire. These sprinklers, as defined in section 3.3.205.4.6, have an integral detection feature. In the case of the JCI/Tyco variant, each sprinkler is integrated with smart heat detector having defined fixed temperature alarm and rate of rise thresholds.

The suppression scheme uses an algorithm to determine a set number of sprinklers to operate simultaneously around the fire origin. The algorithm utilizes rate of rise, fixed temperature information and the total number of detectors reaching the alarm threshold to determine where and when to operate sprinklers. This enables six- to nine-sprinkler to operate at the same time enabling a focused sprinkler discharge on and around the fire origin in a deluge fashion intended to reduce heat release rate and potential

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fire spread.

With this being a new concept, the members of the committee rely heavily on fire testing reports from the national testing laboratories. While the committee members have their own expertise, it may not be in the field of fire testing. The concern of manufacturers is that raw test data can either be misinterpreted or have additional safety factors included in addition to what the testing facility has accounted for in its evaluation. Given these concerns, NFSA is partnering with UL and FM Approvals to develop a standardized test data report for technical committees to clearly illustrate the outcome of a sprinkler testing in a presumably unambiguous manner.

Seismic Protection

Seismic design is typically a subject that many designers try to avoid due to their perceived complexity. The requirements currently in the standard are actually a simplified (believe it or not!) version of ASCE 7-10 requirements. This is a major shift in the application since the requirements of NFPA 13 are trending more towards requiring evaluation by a structural engineer. This should not be the case for all projects since it overly complicates the design and increase costs without significant data to support that sprinkler systems are completely failing during earthquakes. A task group of the NFSA Engineering and Standards Committee and now a task group of NFPA's Technical Committee on Hanging and Bracing have taken on the charge to add options to the seismic design process that will benefit the intermediate to advanced user of the standard.

Site Class Adjustments

In seismic design, there are five site classes as defined by the quality of the soil where the building is being constructed. For structural engineers, they are defined as follows per ASCE 7-02 and ASCE 7-05:

Site Class	Site Profile Name
A	Hard rock
B	Rock
C	Very dense soil or soft rock
D	Stiff soil
E	Soft clay soil

Currently, NFPA 13 assumes Class E for every seismic design leaving a large safety factor. This is already a conservative approach since soft clay soil is more susceptible to seismic waves the other classes. The public input assigned to the task group allows for a reduction of Cp values based on the specific site class for the project as detailed in Table 1.

S_s	Site Class Specific C_p					Worst Case C_p
	A	B	C	D	E	
0.33	0.13	0.14	0.21	0.24	0.34	0.34
0.40	0.15	0.17	0.25	0.28	0.37	0.37
0.50	0.19	0.21	0.31	0.33	0.40	0.40
1.00	0.38	0.42	0.56	0.52	0.56	0.56
1.50	0.56	0.63	0.84	0.70	0.84	0.84
2.00	0.75	0.84	1.12	0.94	1.12	1.12
2.50	0.94	1.05	1.40	1.17	1.40	1.40
3.00	1.12	1.26	1.68	1.40	1.68	1.68
3.50	1.31	1.47	1.96	1.64	1.96	1.96
4.00	1.50	1.68	2.24	1.87	2.24	2.24

Figure 1 - Proposed Seismic Coefficient Table

Note: Proposed table has values in increments of 0.1 items were removed for brevity noted by the triple border

Where the site class is unknown, it is proposed to use the worst-case value found in the far-right column which NFPA 13 already uses as its basis of design based on the associated short period response parameter (S¬s). As you can see, the worst-case values are based on the soft clay soil values.

Building Height Adjustments

The other adjustment proposed by this change allows for a reduction of the Cp value based on the relative location of the sprinkler pipe within the building:

18.5.9.3.4 *Where the height of the component attachment to structure is between 51% and 75% of the average roof height of the structure, the Cp value may be multiplied by a factor of 0.875.*

18.5.9.3.5 *Where the height of the component attachment to structure is between 26% and 50% of the average roof height of the structure, the Cp value may be multiplied by a factor of 0.750.*

18.5.9.3.6 *Where the height of the component attachment to structure is less than 25% of the average roof height of the structure, the Cp value may be multiplied by a factor of 0.625.*

When considering these factors in the seismic design, the higher floors experience more undulation during a seismic event and conversely the lower floors experience less undulation. The lesser effect of the seismic forces on the lower levels allows for the reduction of the Cp value as proposed in the sections above.

Dwelling Unit Balconies

With some jurisdictions legislating that NFPA 13 must be applied to buildings that would otherwise fall within the scope of NFPA

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13R, it was important to align the requirements for dwelling unit balconies between the two documents. The committee has initially decided to use the requirements of NFPA 13R:

9.2.4.3* Balconies and Decks.

9.2.4.3.1 *Where a roof, deck, or balcony, greater than 4 ft wide is provided above, sprinklers shall be installed to protect attached exterior balconies, attached exterior decks, and ground floor patios directly serving dwelling units in buildings of Type V Construction.*

9.2.4.3.2 *Where sprinklers are installed beneath roofs, overhangs, decks, or balconies, sprinklers shall be permitted to be installed with deflectors positioned in accordance with Sections 9.2.4.3.2.1 or 9.2.4.3.2.2 or in accordance with the manufacturer's installation instructions.*

9.2.4.3.2.1 *Sidewall sprinklers shall not be less than 4 in. or more than 6 in. below structural members under a smooth ceiling and not less than 1 in. or more than 6 in. below exposed structural members, provided that the deflector is not more than 14 in. below the underside of the deck above the exposed structural members.*

9.2.4.3.2.2 *Pendent sprinklers shall be positioned in accordance with the requirements of NFPA 13 for the sprinkler type installed.*

The thought process of both the Technical Committee and NFSA's Engineering and Standards Committee is that the level of protection should not decrease when applying NFPA 13 over NFPA 13R. As the 2019 editions are currently written, a dwelling unit balcony would not require protection under balconies of dwelling units. Only the exterior projection rules could be applied. With the proposed change, apartment buildings, regardless of the standard they are designed to, would require the same protection on these dwelling balconies. The consistency in these changes could be a perceived benefit to every stakeholder in the installation process whether they be the designer, plans reviewer, or accepting authority whether NFPA 13 is aligned with NFPA 13R or vice versa.

"Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable."
—William Pollard

There were many improvements made to NFPA 13 during this revision cycle that will benefit the fire sprinkler industry. Changes that make the standard easier to use and changes that create options for the well-versed user are all important. As it was stated before, the sections referenced above are only motions of the committees at this point and still have to pass committee ballot. As Tyson mentioned, let's hope that the committees see the value in these innovative changes and vote to promote it.•

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Don't Put Your Opportunities on Hold–The Story of Little Jimmy Part 2

(Part one of the story appeared in the May/June issue of NFSM)

by Jim Stoddard, *Founder and owner of ARGCO*

Part one tells the story of how Little Jimmy was badly burned in a fire when he was three years old. As he grew up, his dad told him, "You'll be accepted as long as you can do a job and be of service to others, and you'll just have to be a little nicer than the next guy to make it."

Argco was conceived out of my need to be free. Money for things was not the big draw. I had experienced freedom while traveling through the west, living in my van, surfing and backpacking for most of my young adult life. Once you're devoted to the outdoors you're addicted and you don't want to stop.

My mid-twenties were passing me by, and I never had a full-time job. I had no medical insurance, no car insurance, and no headaches, when I met some folks who were selling Teflon Tape over the phone. I was told I would make a great salesman. I wasn't convinced, but since the job could fit into my surfing lifestyle, I tried it. "Good Morning Billy, thanks for taking my call. The reason why I am reaching out to you today is I got a lowball price on your pipe thread sealant, you know, Teflon tape (pause). Comes on a plastic spool and shell, carries the mil spec T27730A on every roll and if you can work with me today, 29 cents." (pause) Well it didn't take me long to figure out fire sprinkler contractors use more Teflon tape than any of the other piping trades, so that is who I called.

In the beginning

Argco officially began in May of 1981. At that time, Ma Bell had the monopoly on phone calling, so it was very expensive, but before 8:00 a.m, Mom offered a 60% discount on their rate so I got up early and called the east coast from my living room in California. I dialed as fast as I could, and I only talked to buyers. Leaving messages made me no money. "Billy, I understand what you're saying BUT if you don't shop every single item you're going to go out of business. (Pause) Do you let your wife buy milk at 7-11? (Pause)"

The first thing I learned from being in business was everyone who was already in business was there to put me out of business. The biggest corporations have no mercy for small business. UPS did not explain that discounts were available. AT&T made their billing so confusing they could charge you for phone lines you didn't have. Bank of America laughed at me, and Prudential Insurance overcharged me by 100% because big business has no heart. Well, as my fate would have it (and fortunately for me), by early 1982, my competition went bankrupt. I was shocked, so I called the phone company and asked for California Tape's toll-free phone number, which I received 6 months later and that's my number today.

"You can't hit the ball if you don't swing," my dad would say. In business, everything is timing. It's like hunting for morel mushrooms, the weather has to be warm enough at night for the mushrooms to pop up, but early enough in the season that the grasses are not yet tall and you can see the mushrooms. Mushrooms or opportunities do not last, so don't put your opportunities on hold. A few months went by after receiving Cal Tape's number when a call came in from some Malaysian Tape manufacturers, I asked for a "wish price" and when they met it, my price came down by 40%. Wow the wheels were rolling, but we now hit overdrive. "Billy I just received two containers and I can't close the warehouse doors, so if you can purchase 10,000 rolls I'll give you a price so low you could play handball with the curb." *(Pause)*. "They buy the sizzle Jimmy, not the steak," Wayne Underwood would tell me. Contractors won't listen unless you get loud. Get their attention and make them check their costs while they're on the phone. "That's a good price? Eh! Billy, it's not like tomatoes, they don't go bad!"

I was selling five new customers a day and business became so much fun that I forgot to surf for a year or two and all I did was work. I'd start in the morning dark and work into the night dark. After just two years in business, Argco was selling a substantial share of the nation's thread sealant tape business and Argco's customer list read like The Who's Who in the Fire Sprinkler and Plumbing industries. That's a lot of tape.

In 1983, contractors were asking me for a paste pipe dope, so after researching the brands being used, I realized I wouldn't be able to pay freight and make money selling brand named products. That was an eye opener, so I did my research and TufGlide pipe dope was formulated. Soon we were selling over a million dollars-worth of Tuf-Glide; the original low cost Teflon pipe thread sealant. Tuf-Glide's success speaks of its quality! In the industry that threads and seals more pipe than any other, TufGlide is every bit as good as those high-priced sealants. Just because you're big and you think you're getting the best pricing doesn't mean it's true and Argco only added items that we could save contractors 50%. I networked all my research and purchasing over the phone. Gloves, gaskets, steel

eye sockets, hole saws, tape. Customers would ask what kind of product line is this? "These are the products I can afford to become a leading supplier in the fire sprinkler industry," I would tell them.

The Eighties

In the mid-eighties most of these items were still made in the USA in places like Jessup, Pennsylvania and East Orange, New Jersey, small machine shops and factories that were family- owned and proud to be working hard for their money. I realized later, that if those hard-working folks knew what I knew (and that is) how to sell their products, they would have survived what happened next, but having supported the traditional supply chains was their mistake and demise.

Colorado here we come. By 1989, North County San Diego was losing its "hang loose beach character" to urbanization and silk shirts. I had to move. We loaded up the bus, invited any employee who wanted to come and headed out on the road again. We set up the sales office at 9,300 feet elevation with views of the Keystone Ski Area, where I sit today writing this story and cheering on the snow falling outside. In the early 1990s Argco was confronted with a predacious startup that drove profits down on every product we sold, and it appeared this startup was working on my computer and tooling. Argco once sold sprinkler accessories to OEMs and the largest wholesalers, but now we quickly lost their business, making it necessary to shift gears and sell direct to contractors. We hung on and won at least the battle to stay in business and be creative.

Argco's creativity developed the most complete line of fire sprinkler accessories available anywhere in the world. Offering the hard-to-find items, I mean the tiniest of niches that solve problems and save contractors money. Keeping our ear to the rails of our industry is our focus today, and we are ramping up our research and developing many new time-saving tools, unique to installing Fire Sprinkler Systems. Our new innovative tools prove our long-term commitment to the fire sprinkler contractor. We want to provide you with every item you need to install a fire sprinkler system most efficiently and at the lowest cost.

Now it has come to everyone's understanding that most of these brand name fire sprinkler and piping products are coming out of the same Chinese factories. I know, I have been going there for decades, and I can tell you the Chinese impress me. I believe Wall Street investing our money in China may turn out to be as poor a thinking as urinating in your pants to stay warm.

In China, your volume purchase and cash can find the true cost before any fancy packaging, dividends, or service fees. Little Jimmy believes, and this belief has supported Argco's survival and success, if you are not buying at the very best prices you will not be able to grow your business to a place where you will be free of the vulnerability of our cyclical economy.

Thank you for taking your valuable time and reading my story. If I told you everything that went down it would burn off both of your ears and I'd be giving away my secret recipes, but you can give Little Jimmy a call. I'll fill you in with any spicy details, and your money can earn you the best pricing on quality listed and approved fire sprinkler products. Guaranteed ! (Pause) "Billy, are you there? I can hear the wheels a turning." It's your mushroom - staring you in the face! •

Warehouse Protection of Exposed Expanded Group-A Plastics with Electronic Sprinkler Technology

by Guarav Malik, *Global Product Manager, Storage Sprinklers and Enterprise Software, Building Technologies and Solutions, Johnson Controls and*

Zachary L. Magnone, P.E., *Director of Innovation & New Ventures, Global Fire Suppression Products, Building Technologies and Solutions, Johnson Controls*

Since the invention of the automatic sprinkler in the late 1800s, the basic operating principles of the technology have remained fundamentally unchanged. Automatic sprinklers utilize thermally responsive elements which mechanically operate once they achieve a specific fixed temperature. Arguably, the widespread adoption of the automatic sprinkler can be attributed to its simplicity since it requires no power beyond pressurized water and the presence of heat from a fire to operate; however, continued progress and modern construction practices have pushed automatic sprinkler technology to the limits of its practical use in many applications, particularly in the storage protection space.

The modern warehouse has changed significantly as e-commerce and consumer expectations have forced changes to warehousing and logistics. Growing demand for the storage of exposed plastic materials and the advent of modern lift technology allowing for higher storage heights present increasingly challenging fire hazards. Exposed expanded group-A plastics (EEP) create a particular challenge in that they produce fires that grow much faster than similar products stored in cardboard containers. EEP materials also do not absorb water as readily as cardboard, making fires difficult to contain.

While recent advancements in the application of K25.2 and larger Early Suppression Fast Response (ESFR) sprinkler technology have presented viable options for the protection of EEP materials, ESFR-25 sprinklers require the use of vertical barriers between rack sections to slow lateral fire spread and result in significant water demand [1, 2]. Additionally, vertical barriers may limit operational flexibility if there is a need to change racking arrangements. With electronically activated sprinklers installed in the ceiling, racks can be moved as required to facilitate better flow of product within the warehouse.

Initial research and testing of electronic sprinkler technology was intended to demonstrate that electric fire sprinklers operated by an intelligent electronic detection and control system could achieve adequate ceiling-only protection of exposed expanded group-A plastic commodities stored on racks. One objective of the testing was to eliminate the need for added engineering controls such as in-rack sprinklers or vertical barriers while using significantly lower total water demand than current ceiling-only alternatives. Another objective was to allow for reuse of existing sprinkler system piping having ¾ in. NPT outlets in situations when storage commodity hazards have increased above the original system design capabilities.

The team theorized that effective fire suppression performance could be achieved by:

- Simultaneously operating an array of sprinklers
- Surrounding the point of fire origin during the early stages of fire development
- Maximizing the amount of water applied onto burning materials
- Pre-wetting adjacent unburned fuels to prevent lateral fire spread

An electronically activated sprinkler system was developed using components that are readily available and commonly used in the fire protection industry. The system was evaluated through a series of full-scale fire tests conducted at the UL LLC large burn lab facility in Northbrook, Illinois.

The test setup consisted of standard EEP commodity – polystyrene meat trays shrink wrapped on oak pallets – stored on double-row racks with storage heights up to 30 feet under a 35- and 40-foot smooth, flat ceiling. The sprinkler used in the testing consisted of an existing commercially available ESFR sprinkler with a k-factor of 16.8 gpm/psi0.5 that was modified to operate electronically. The detection and control system utilized standard addressable heat sensors that were hard-wired to a commercially available control unit. A heat sensor was wired to each sprinkler and installed within 12 inches horizontally of its associated sprinkler. The panel was programmed to operate up to nine sprinklers simultaneously through basic control logic. Sprinklers were selected for operation using a sensitive rate-of-rise temperature detection algorithm and activated once specific triggering criteria were achieved.

The following chart details the parameters and results of four full-scale fire tests that were performed at UL. During the test series the following observations were made:

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1. In all tests, nine sprinklers operated simultaneously at or before the first ESFR sprinkler activation would typically have been observed [3]. The first ESFR-25 sprinkler operated at 1:01 minutes, 17 seconds after all nine electronically activated sprinkler heads, during a comparative full-scale fire test with the same parameters as Test 1. Additionally, the ESFR-25 solution required vertical barriers.
2. In all tests, sprinkler operating arrays were contiguous and roughly centered around the point of fire ignition.
3. In all tests, the damage was limited to within two pallet loads laterally in either direction from ignition, well within the envelope of sprinkler operation with a significant wetted margin.
4. Minor aisle jump was observed in Test 1 only and was principally caused by burning commodity falling into the narrow four-foot wide aisle and igniting a single pallet load on the target array opposite ignition. During the course of the test, this single pallet load was partially consumed. Due in part to this observation, Tests 2, 3 and 4 were conducted using a wider 8-foot aisle. As a result of these tests, the EAS-1 system uses an 8-foot aisle width, the same as that of a standard ESFR system, with the advantage of no vertical barriers.
5. In all tests, significant fire suppression was achieved within approximately 90 seconds from initial sprinkler operation. In that same period of time, a standard ESFR system would likely be continuing to activate sprinklers mechanically in response to continued heat from the fire [1].

REFERENCES:
[1] UL LLC, *"Protection of Rack Stored Exposed Expanded Group A Plastics with ESFR Sprinklers and Vertical Barriers"* 2012, Fire Protection Research Foundation, Quincy, MA

[2] NFPA 13 Standard for the Installation of Sprinkler Systems, 2016 Edition, NFPA, Quincy, MA

[3] *"Sprinkler Protection Criteria for Exposed Expanded Group A Plastics Project Summary"* 2014, Fire Protection Research Foundation, Quincy, MA

Parameters and results of full-scale fire testing

The results of this investigation demonstrate that the simultaneous activation of fire sprinklers surrounding the point of fire origin (electronic fire sprinklers operated by an "intelligent" fire detection and control system) can provide adequate protection of exposed expanded group-A plastics stored on racks in warehouse applications without the need for vertical barriers. The earlier detection and simultaneous, grouped activation of sprinklers allows for protection of these higher hazards with a higher heat release rate by addressing fires when they are smaller. Further, protection can be achieved with up to 55% lower total system water demand compared to existing alternatives, such as the installation of a fire pump or tank.

Test # **Test date**	**Test 1** **9/25/2015**	**Test 2** **5/27/2016**	**Test** **3**	**Test** **4**
TEST PARAMETERS				
Storage Type	Double row rack			
Commodity Type	Exposed expanded Group A plastics			
Nominal Ceiling Height (ft)	40	35	35	35
Nominal Storage Height (ft)	30	30	30	15
Ignition Location	Under 1 Offset	Between 2	Between 4 Offset	Between 2
Aisle width (ft)	4	8	8	8
Sprinkler & sensor spacing (ft x ft)	10 x 10	10 x 10	10 x 10	10 x 10
Sprinkler type	Electronic	Electronic	Electronic	Electronic
Sprinkler k-factor	16.8	16.8	16.8	16.8
Operating pressure (psi)	52	52	52	52
Sensor type	Addressable heat detector	Addressable heat detector	Addressable heat detector	Addressable heat detector
Sensor vertical distance from ceiling surface (in)	3	12	12	12
Sensor horizontal distance from	12	12	12	12
TEST RESULTS				
Length of test (min:s)	31:00	31:00	31:00	31:00
First sprinkler activation	00:4	00:4	00:4	00:43
Last sprinkler activation	00:4	00:4	00:4	00:43
Number of sprinklers operated	9	9	9	9
Peak ceiling gas temperature above ignition (°F)	140	257	320	190
Maximum 1 min. avg. gas temp.	120	156	174	95
Peak steel temp. at ceiling above ignition (°F)	115	144	160	84
Max 1 min. avg. steel temp. above ignition (°F)	102	135	145	82
Fire spread across aisle?	YES	N	N	N
Sustained combustion at outer edges of target array?	YES*	NO	NO	NO
Fire spread to outer edges of main array	NO	NO	NO	NO

*Burn through of a single pallet at very bottom of target array ignited by falling debris from main array.

Grenada's St. George University –A Sprinkler Story

by Terry Noonan, *Business Development Consultant, United Fire Protection, St. Petersburg, Florida*

There are many beautiful college campuses around the world, but by far the most idyllic I have seen is located on the island of Grenada in the South Caribbean. St George's University (SGU) is a campus of red-tile roofed buildings on the far south point of Grenada, over-looking the crystal- clear turquoise waters of the Caribbean. St. George's is generally agreed to be the premier medical school in the Caribbean, with over 5,000 students.

As is typical in small Caribbean countries, the building and life-safety codes in Grenada are different from those in the U.S. Life-safety awareness at St. George's has long been ahead of any "AHJ" requirements on the island; nonetheless, three years ago the school embarked on an ambitious plan to upgrade life-safety systems to "state-of-the-art." United Fire Protection of St. Petersburg, Florida was selected to design new alarm and detection systems for the campus.

Concurrently with campus life-safety upgrades, construction of a modern new 250-bed dormitory started in 2018, I was asked to help design a manual standpipe system "per all the proper U.S. standards." I asked about sprinklers, but was told there are no fire sprinkler systems in Grenada. Acknowledging that a standpipe system designed per NFPA 14 was at least a start, I reviewed project plans, including civil drawings. A quick review of civil drawings revealed a challenge: there were no fire hydrants on the campus. The nearest off-campus hydrant was a quarter of a mile from this building. Meeting "U.S. standards" meant the system demand would be 1,000 GPM, and we needed a fire department connection within 100 feet of a fire hydrant. Campus safety officials said this would not be a problem as the new fire truck carried its own water supply – 250 gallons.

The Real Challenge

The design of a reasonable standpipe system was the immediate issue, but I saw that the real challenge was to develop a realistic, achievable plan to bring useable fire-fighting water to within reach of a fire truck in a fire scenario. I met with the SGU Director of Public Safety and Security, Chief Maurice Darius. Chief Darius was a career safety officer and retired assistant commissioner of police in Grenada. He was a soft-spoken man, popular and respected in the community, brother of the late Catholic Bishop, Vincent Darius. The Chief invited me to meet the municipal Fire Chief "downtown." We drove 30 minutes to the fire station in downtown St. George. I asked the authorities there about fire sprinkler requirements in Grenada; after some discussion, the consensus was that there was no requirement anywhere on the island for sprinklers. Three buildings in Grenada did have fire sprinklers, however; all were warehouses that had previously burned to the ground. On a side note, the men at the station were understandably proud of their new beautiful, yellow fire truck, which carried a plaque that read "Gift of the People of Japan." I asked how they were able to drive the huge truck on the narrow, winding pot-holed roads of St. George. They said when they turn on the siren, "People get out of our way." That did not really answer my question, but they were emphatic, so I did not pursue it.

On the winding drive back to campus, I asked Chief Darius who actually was the reviewing authority for fire protection systems, including standpipe and/or fire sprinkler plans. He said, "You are; that is why you are here."

Rather than ease my concern about plan approval, I felt a new burden. I was in a place where no one would issue or deny a permit, check pipe sizes or question hydraulic calculations. Who would say "no fire sprinklers, no problem!" If something was wrong (or just dumb), it was on me. The one constraint that ultimately governs or limits all infrastructure improvements was (and is) money; that is so in the US, and that is so in Grenada.

I presented a conceptual fire hydrant plan for the campus, along with the required new underground supply piping. The estimated cost was in the millions, far beyond budget allowances. I suggested fire sprinklers, especially for the new dorm, would be a reasonable improvement. As sprinklers are not installed in Grenada (save for the previously mentioned three warehouses), this also was too extreme. SGU was already spending big money on state-of-the-art alarm and detection, plus the new standpipe system. The new dormitory is now complete and occupied. No sprinklers.

On Tuesday, April 9, 2019, at 4:48 a.m., the Royal Grenadian Police Force (RGPF) fire emergency personnel, in a new yellow truck, responded to a call from a home near the SGU campus in St. George. According to a statement by the RGPF, "On arrival, one occupant was found unresponsive in a room on the upper floor of the two-story family home." Students of the nearby medical

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St. George's University Campus looking North

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school tried unsuccessfully to resuscitate the man. "He was transported to the General Hospital in St. George's where he was pronounced dead." The man was identified as Chief Maurice Darius, Director of Public Safety and Security, St. George's University.

Returning

I was invited back to St. George's University in May to present a proposal to install sprinklers in two of the largest dormitories at the University. The CEO is intent on providing fire sprinklers in all dormitories over the next three years. Installation begins in December of this year. The University will not stop there. SGU is intent on continuing the installation of sprinklers until the entire campus is protected. And the thirteenth fire hydrant has just been installed and tested. This is certainly not code-driven, and not insurance-driven. And sprinklers throughout the campus would not have saved Chief Darius. But one sad wakeup-call on the morning of April 9, 2019, was more than enough to inspire SGU to "do the right thing."

St. George's University will soon proudly boast that it is among the safest places in the Caribbean for students, staff, and visitors. I wish the Chief could see what he inspired!

Seven people, good and beloved people like Chief Darius, die each day in house fires in the U.S. Someday soon, I hope, we will be inspired to "do the right thing" and put sprinklers in our homes.•

Maurice Darius

New Training Center Offers Advanced Capabilities and Unique Learning Opportunities

"Customer experience" was the main focus and vision for Viking Group, Inc., and was the standard that helped design the brand new state-of-the-art training rooms and classrooms.

The new training spaces are part of Viking's new headquarters in Caledonia, Michigan located off M-6 and M-37, which opened to its first employees on August 19. The training spaces are expected to be completed sometime in late 2019, with trainings booked already into 2020.

The new building features enclaves for its employees and guests, offering seclusion and privacy as needed. The open concept idea behind the design of the building allows for better collaboration across departments and teams. The training spaces complement the rest of the headquarters, using inventive technology and layouts to make trainings flexible, enjoyable and open.

"The new training facility will be a modern high-tech learning environment with two standard classrooms, a collaborative learning classroom, six functional systems labs and a state-of-the-art virtual reality training lab," says James Lake, Viking's Vice President of Training and Technical Services. Each room is designed with the trainees' needs and comfort in mind, something that John Johnson, Viking's Manager of Technical Training, says is really important when professionals are investing their time in a training session. "We wanted to make sure that we were getting as much out of each room as possible. We set these up so the trainees can come in and have a great experience while they learn something new."

The training labs include the Alarm and Detection/Virtual Reality (VR) Lab, the Suppression Lab, the Corrosion Resistance Lab, the Fire Pump Lab, the Flow Lab and the Sprinkler Riser Lab. Of the classrooms, there are two traditional style classrooms that have the ability to conjoin into one larger room, and one non-traditional style classroom that features advanced technology allowing for easier collaboration and connectivity among teachers and trainees.

"New Viking courses will focus on creating a durable learning experience through the utilization of standard classroom formats, interactive and collaborative problem solving, functional demonstrations of system operations and full and virtual hands-on interaction with systems with the intent of tapping into various learning preferences," adds Jim Lake.

Each training lab features its own exciting new technology and capabilities. In the Alarm and Detection/VR Lab, trainees can learn about systems, sprinklers and connections with virtual-reality style

programs – something relatively new to the industry that Viking is eager to offer.

Users are immersed into a world of piping, sprinklers, valves and more, and are challenged to find the right connections and parts. Each scenario offers a more mentally-stimulating situation than the last – much like those scenarios one might see in real life – making this experience similar to that of a video game with varying levels of difficulty.

A valuable supplement

Johnson says that this training tool is a valuable supplement to the other hands-on training spaces. The VR capabilities give the trainees new scenarios each time they advance. "While the VR isn't meant to replace applied training, having this tool at our disposal is an excellent addition to the hands-on labs throughout the

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Our Smartphone App Just Got Smarter

Your Viking "virtual assistant" now supports Viking Wet, Dry, Deluge, and Preaction systems with Augmented Reality features. Get instant access to technical data, step-by-step troubleshooting instructions, and maintenance and repair videos, all from your phone or tablet.

Augmented Reality overlays and identifies key valve system components on your screen, and detailed illustrations and simple prompts make the user experience intuitive and fast. You can even request replacement parts directly from your phone. The Viking Mobile App is available for both Android and iOS, so download it now from Google Play or the App Store by searching for "Viking Valve".

The current release supports Viking Wet, Dry, Deluge and Preaction systems.

Available on the App Store

ANDROID APP ON Google play

www.vikinggroupinc.com

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rest of the training facility." There are four fire alarm panels and their associated equipment planned for the Alarm and Detection/VR Lab, with the possibility of adding more equipment in the future. The training programs that will be offered at Viking's new building also allow for customers to build their own custom curriculum on a requested basis.

While there are no actual foam or clean agent discharging abilities in the labs, they allow trainees to see how the applications and fire safety systems will work in real life, and allow for exploration of their functionality, capabilities and how to properly test and maintain the systems.

Another innovative training lab space is the Flow Lab – a room with a mesh grate floor and series of nozzles that allow water to easily cycle back through to Viking's 84,000 gallon storage tank. The multi-purpose room features tablet-controlled sprinklers, LED up-lighting to better observe sprinkler discharge patterns, fire hydrants to demonstrate water supply analysis, and a standpipe mockup to demonstrate how to inspect, test and maintain the systems. Johnson also mentioned that it has pipes connecting it to the Sprinkler Riser Lab, which is impressive on its own: the Sprinkler Riser Lab features nineteen risers, four floor control assemblies, and wet, dry, preaction, flow control and deluge systems. The Flow Lab also features accordion-style windows that have been tested to withstand hurricane-level winds – allowing for a way to observe the demonstrations and stay dry while water is flowing.

Like the rest of the building, the training lab spaces are filled with the latest advancements in technology and offer those comforts that Johnson identifies as crucial to the customer experience. The training space will also offer separate dining areas, bathrooms and lounging locations for its guests, so that trainees and other visitors aren't faced with the daunting task of trekking through the whole building when seeking a place to relax or snack. "We wanted this space to feel welcoming and open to guests. If you need to step out of the classroom for a minute and take a quick business call or grab something to drink, we wanted it to be easy for you to do that while you're here."

To learn more or book a training session, please contact training@vikingcorp.com.•

This article first seen in Viking's CONNECTIONS Fall 2019 magazine. Interior building images credit to First Companies, Inc.

The Tale of Two Fires

by John R. Waters, EFO, MA, MS, *NFSA Field Service Coordinator*

In August of 2019, I received a phone call from a friend who is the Fire Marshal in Warrington Township in Bucks County, Pennsylvania, telling me of a residential sprinkler success in his community. It occurred on Kulp Road East in the Chalfont section of the township. He said it was started by a hoverboard that malfunctioned; in as much as I was a subject matter expert regarding another hoverboard fire in 2017, I was intrigued. I requested the occupants' contact information and was able to visit the property and interview the homeowners about a week after the fire. The homeowners were more than willing to share their experience and I'm grateful to be able to share their story.

The property as imaged by Google Earth in 2013.

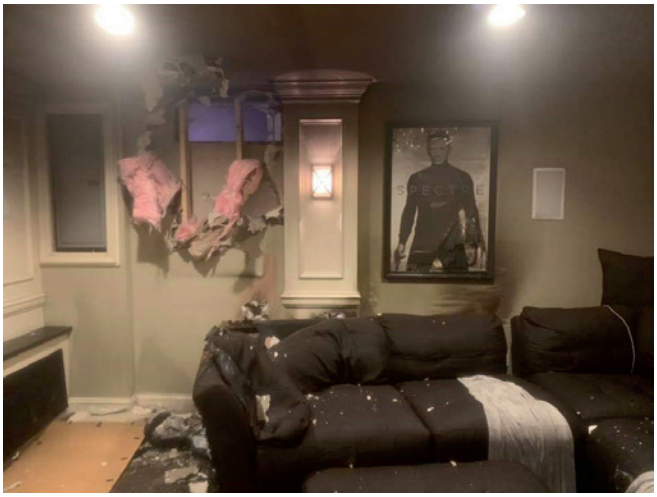
The fire occurred on the 14th of August; the Bucks County 911 Center received a call from an occupant at 0310 hours reporting something on fire in the basement and that everyone was out of the house, except for the family cat.

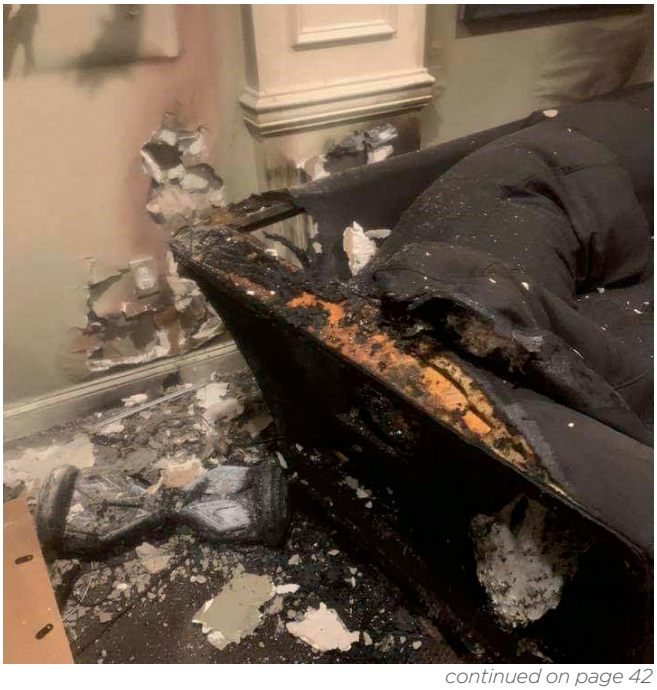
The fire department was dispatched at 0313 hours and had an on-scene time of 0324. Further notes from the 911 center to the responding units provided that the basement was "in flames and that it a hoverboard exploded in the basement."

The room of origin prior to the fire.

The hoverboard was on the floor, next to the couch, under the Skyfall poster. Arriving on-scene, the local Fire Chief reported a two-story house with nothing showing from the exterior. Upon investigating the interior, he further reported a light smoke condition in the basement. He discovered a single sprinkler operating in the basement. The fire was confined to the hoverboard and the couch.

The room and point of origin after the fire.





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The family was out of the house for approximately one hour; there were no injuries.

Restoration included the complete removal and replacement of the ceiling and drywall in the room of origin within the basement; and the removal and replacement of the ceiling and about a foot of drywall within the rest of the basement.

The restoration needs.

As stated earlier in this article, I was asked to review the circumstances surrounding a fatal fire in Harrisburg, Pennsylvania, a fire on Lexington Street which resulted in three deaths; two occupants (ages 2 and 10) and one firefighter who died enroute to the fire. The fire resulted as a malfunction of a hoverboard and the parallels were striking; the outcomes both tragic and impressive.

The property as imaged by Google Earth in prior to the fire; it's the end of the row, on the left.

The fire occurred on March 10th, 2017; the Dauphin County 911 Center received numerous calls reporting a "working fire with numerous calls."

The fire department was dispatched at 1946 hours and had an on-scene time of 1950. Further notes from the 911 center to the responding units provided that "they were receiving multiple calls and have reports of three children still trapped inside the building." A full first alarm was ordered by the first-due Captain at 1947 hours. Units arriving on the scene reported "heavy fire blowing out the entire front of the first floor and heavy smoke conditions throughout."

Conditions on arrival of the fire department.

The full video of the early stages of the fire can be viewed at: https://www.statter911.com/2017/03/11/early-video-3-children-rescued-from-harrisburg-pa-rowhouse-fire/

Numerous victims were trapped within the dwelling and a 2nd alarm was dispatched at 1952 hours. The fire resulted in three fatalities, two occupants and a responding fire department lieutenant. The fire destroyed the dwelling of origin.

The room of origin.

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As one compares these two fires, the similarities cannot be denied:

	2534 Lexington Harrisburg, PA	34 Kulp Road East Chalfont, PA
Date of Loss:	3/10/2017	8/14/2019
Floor of Origin:	1st floor	basement
Heat of Ignition:	hoverboard battery	hoverboard battery
Material First Ignited:	furniture	furniture
Ignition Factor:	malfunction	malfunction
Dispatch Time:	19:45:59	03:13:08
Arrival:	19:50:07 --- 4:08 from dispatch	03:24:46 --- 11:38 from dispatch
Under Control:	21:12:01	N/A
Cleared Scene:	00:15:32	05:12:49
Year Built:	1910	1998
Construction:	Ordinary - dimensional lumber	Frame - dimensional lumber
Living Area:	1,968 - 14x52	3,050 - 60x38
Presence of Detectors:	yes - operated	yes, operated
Residential Sprinklers:	no	yes - 1 head activated
Fatalities:	3	0
Fire Dynamics	Hoverboard plugged-into outlet	Hoverboard plugged-into outlet
	Occupant heard what sounded like "arcing"	Occupant heard what sounded like "humming"
	Occupant witnessed ignition	Occupant witnessed ignitiion
	Occupant witnessed "explosion"	Occupant witnessed "explosion:
	Adjacent smoke detector sounded	Adjacent smoke detector sounded
	Furniture ignited	Furniture ignited
	Occupants did not call the fire department	Occupants called the fire department from outside
	Flames to ceiling in <2 minutes	Flames to ceiling <2 minutes
	Fire goes to flashover trapping occupants	1 sprinkler head activates preventing flashover

- In both fires, ignition was witnessed, so there was no delay in occupant notification.
- In both fires, adjacent smoke detectors sounded almost immediately.
- In both fires, floor joists were dimensional lumber, although the houses were built 88 years apart.
- In both fires, furniture was the material first ignited.

At the Lexington Street fire, flashover was achieved in less than four minutes, resulting in two occupant deaths and a death of a Lieutenant with the Harrisburg Fire Department; he died in a vehicle accident enroute to the fire.

At the Kulp Road East fire, the fire never reached flashover, as a single sprinkler head operated in the room of origin, essentially extinguishing the fire before the arrival of the fire department.

At the Kulp Road East fire, the family returned their home within an hour of the incident; there were no injuries.

The owners of the Kulp Road East home had the following comments:

On sprinklers: "Life saver! Should be mandated in all buildings and homes. After our experience, I will only live in a house that contains sprinklers in every room. Our son was just several feet from where the hoverboard exploded and is unhurt. So many lives could be saved, and damage avoided by installing sprinklers."

Would you recommend sprinklers: "Absolutely, yes! They saved our house, our lives and the lives of our animals."

What do you think if PA regulations removing the requirements for sprinklers from our state-wide residential building code: "It's pure stupidity. After what happened to use, there is no decision to be made. The parallel between our fire and the other hoverboard fire in Harrisburg and the different outcomes cannot be ignored."

In conclusion

We should remember these words "Those who do not learn from the mistakes of the past are doomed to repeat them." There is no doubt that great strides in fire safety has been made over the last 30 years; the statistics prove a significant decrease in fire deaths and injuries, but the percentage of such deaths and injuries occurring in residential properties has not changed. Fires in the structures in which we live account for 80% of our fire deaths and injuries; fatal fires in single-family dwellings is, by far, the greatest percentage of such fatalities.

References to the residential fire problem in the United States can be found as far back as the pre-Revolutionary War days, before there even was a United States! To commemorate the bicentennial of the United States, the Philadelphia Contributionship for the Insurance of Houses from Loss by Fire, published a booklet containing excerpts from letters written by Benjamin Franklin, often called the Father of the American Fire Service. In this booklet, Franklin described the fire problem in a letter he sent to a colleague in 1770, saying, "It appears to me of great importance to build our dwelling houses, if we can, in a manner more secure from dangers of fire."

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In this same booklet, another letter from Franklin is quoted, this letter written in 1787. In it, Franklin states, "I sometimes think men do not act like reasonable creatures when they build for themselves combustible dwellings, in which they are every day obliged to use fires."

William Clark (1986) expressed his thoughts concerning automatic sprinklers in the residential setting. He felt "Technology is now advancing to the point where home sprinkling systems will also be affordable and should be considered seriously as the best form of home fire protection." Karter (1993) also addressed his thoughts on residential sprinklers; he felt that "…we must aggressively pursue the wider use of residential sprinklers."

More recently, the United States Fire Administration released a statement on its website stating "19% of all reported fires occurred in one- and two-family dwellings; however, these fires caused 66% of the fire deaths in the United States." America Burning Recommissioned (1999) made two succinct statements regarding residential sprinklers:

1. No tactic or strategy should detract from the requirement for sprinklers and,
2. Smoke alarms should always be the locality's second option.

The International Association of Fire Chiefs also weighed-in on the subject, stating on its website "The IAFC adopts the position that all new construction, including one=and-two family dwellings, should be built with fire sprinklers installed to protect the public, fire service personnel, the structure, its contents, the economy and the environment." Why haven't we been successful in implementing widespread requirements for residential sprinklers? The United States Fire Administration observed "Failing to convince elected officials of the seriousness of the fire death, injury and loss statistics was considered the most serious problem because it is the path to resolving many other problems."

When do we learn our lessons and adopt the International Residential Code as-is? It has required residential fire sprinklers for over a decade.•

The End Results:

The conditions on Kulp Road East after the fire

The conditions on Lexington Street after the fire

WITH FIRE SPRINKLERS

Les and Diane Woods in their fire-sprinklered home in Tega Cay, SC. Les Woods is a Resident Fire Marshal and Division Chief with the Tega Cay Volunteer Fire Department. Lt. Diane Woods is Fire Prevention Officer for the department.

EVERYONE GOES HOME®

"We're firefighters, but we like having a firefighter in every room of the house."

With 73 years in the fire service between them, Les and Diane Woods understand the dangers of home fires to both civilians and responders. In response, they've launched an ambitious educational strategy that already includes more than 60 public home fire sprinkler demonstrations across the southeast, and numerous fire service trainings. "We're trying to educate as many people as possible," Les says. They take their advocacy seriously and say they will never live in an unsprinklered home. In fact, they were the first in their county to install fire sprinklers in their own home. "We had to walk the walk and talk the talk," Diane says. "It's so much a part of our hearts and passion."

Home fire sprinklers mean less exposure for firefighters and fire investigators. Make them part of your community risk reduction plan.

With home fire sprinklers, EVERYONE GOES HOME®

Learn more: **HomeFireSprinkler.org**

SPRINKLERS PROTECT EVERYONE

Home Fire Sprinkler® COALITION
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HomeFireSprinkler.org

Fire is Everyone's Fight™

National Fallen Firefighters Foundation®

StateFarm™

Funded through a grant from State Farm

SOCIAL SCENE

by Joanne Genadio, NFSM Editor

Send Us Your Sprinkler Saves!

Any follower of NFSA social media sites and our weekly *Spotlight on Fire Sprinklers* e-newsletter knows that we LOVE when members send us sprinkler saves! Sprinkler saves sent in by our members are used in a timely fashion (usually in minutes of receiving the save) on Twitter, Facebook and LinkedIn. The save is then used as a feature in *Spotlight on Fire Sprinklers* on the Friday of the week the save is received. We make it a point to give credit to the person, company or fire department that sends in the save. Members sharing saves with members is one way to let industry employees know that the work they do on a daily basis is truly saving lives and property.

In an effort to lessen *your* effort in submitting saves, we've created an online form that may be used to submit your good news. The form gives you the ability to fill in the who, what, where, why and when, and to include a quote and description of the incident that we will use in our Spotlight feature. Photos are highly encouraged, and you can upload them right at the site after you fill out the form. The form can be accessed at **nfsa.org/sprinklersaveform**. Take a moment now to see what we're looking for and be sure to bookmark the webpage, so the next time a save comes across your desk, you'll be at the ready to submit it for distribution.

NFSA's newly created Sprinkler Save Team will be working on special ways to recognize members that submit sprinkler saves. We couldn't do what we do without you and want you to know how much member involvement means to us. Watch for updates in the coming year. We mean to make this a fun and exciting initiative and it won't work without your help.

Currently, most of our saves are reported to us by Fire Departments. We'd love to see our other members get involved. When we can attribute the installation of a system involved in a save to one of our contractor members, it makes it all the more meaningful. SAM members, know it was your products used in the system that saved a structure? Let us know!

I was excited to receive a save from a sprinkler fitter a few weeks ago. That was a first, and I hope the trend continues. He saw member saves posted on our Facebook account, and send me a message through Facebook that included his save. People do take notice!

We're ready to shout your sprinkler save out to the world. Our members make a difference every single day. The systems that they manufacture, install and maintain are saving lives.

If you have any comments or questions, or would prefer to submit your save directly to me, please send all to genadio@nfsa.org.

Thanks for helping to make our new NFSA Sprinkler Save initiative a success!•

New for 2020-National Fire Sprinkler Magazine live links

The digital version of NFSM will now feature live links, giving advertisers greater control over where to direct their audience. Want them to view a video of your latest products? Include a link in your ad. When a reader clicks on it, the video will open up right within the magazine! The same goes for web pages. There's no better way to get an immediate response to your ads. Use a tracking link to know how many clicks you get per issue! Best of all, there is no extra cost to this feature. It's just another value-add that you can't afford to miss out on. Get creative with where your links will take your audience and see your ROI soar! •

Get the Inside Scoop on Conference Sponsorships in our 2020 Media Kit Available on the NFSA website

Get a jump on the competition by seeing what's available now. There's no better way to rep your company's products and/or services than with a sponsorship to this highly anticipated event. Fire Sprinkler Contractors from across the country will converge on Phoenix, Arizona a the beautiful Marriott Desert Ridge Resort & Spa on April 29th through May 2nd to network, learn and enjoy the gorgeous location. Get your company front and center at the event and support your Association! Check out what's available and watch for notices of when the sponsorships will go live for online sale! •

Magazine Submissions

Authors should also access the media kit to learn of our 2020 themes and due dates. Submittal guidelines are available in the kit. We highly encourage member involvement in our magazine and look forward to receiving articles for publication. •

The 2020 Media Kit has Arrived!

The **NFSA 2020 Media Kit** is now available for viewing on the NFSA website. With both print and digital advertising opportunities, and a list of available sponsorships for our Annual Seminar and Business & Leadership Conference, the kit contains everything savvy marketers need to find the perfect way to hit their target market while staying within their budgets. There's something for everyone! Customizable plans are available also. *Contact Marketing Manager Joanne Genadio at genadio@nfsa.org to get started on a plan that's tailored for your organization's 2020 advertising goals.*

Northern Illinois Fire Sprinkler Advisory Board Promotes Erik Hoffer as New Executive Director

The Northern Illinois Fire Sprinkler Advisory Board (NIFSAB) and the National Fire Sprinkler Association (NFSA) named **Erik Hoffer** as the organization's new Executive Director. Hoffer will work closely with members of the fire service, elected officials, building officials and decision-makers to raise public awareness about the life- and property-saving benefits of fire sprinklers, provide training, and promote progressive legislation.

Hoffer has 12 years experience working with the fire sprinkler industry and fire service. He joined NIFSAB and NFSA more than two years ago as Field Operations Local Coordinator where he has worked with fire departments and municipalities utilizing NIFSAB and NFSA resources to support their public awareness and advocacy efforts, including live fire sprinkler demonstrations, as well as their code and legislative activities.

Prior to joining NIFSAB, Hoffer was account executive at PPA Communications, a marketing communications firm that specializes in developing and implementing information and education campaigns for safety advocacy groups and trade associations. During that time, Hoffer worked closely with NIFSAB, Illinois Fire Safety Alliance, Home Fire Sprinkler Coalition (NFSA is a founding member), NFPA and other organizations.

"As board members, we've worked with Erik for a number of years and we are confident he will do a good job in this leadership position," said Matt Treutelaar, Chair of the NIFSAB board and president, Great Lakes Plumbing and Heating Company. "He understands the industry and the issues. He has built strong relationships and works well with members of the fire service, contractors and other stakeholders that utilize NIFSAB's resources."

"Erik has been a valued teammate at NFSA for the past two years and in the industry for more than a decade," said NFSA President Shane Ray. "He has a great opportunity to build on the legacy Tom Lia has spent 20 years building."

Hoffer said he is excited about his new role and is ready to move forward. "NIFSAB has a great legacy of providing fire sprinkler education and resources to its fire and building official partners and their communities. I am proud to be part of that tradition."

In Memorium **Hal Sanders**

It is with great sadness that we report the passing of longtime NFSA member Hal Sanders of HRS Systems. Hal, 87, passed away on Oct. 15, 2019.

Hal founded Hal R. Sanders and Associates, a consulting engineering company, which offered loss analysis investigative work as well as fire protection system design. Soon afterward, he created HRS Systems in order to begin working on the development of sprinkler system hydraulic analysis software (HASS) and CO2 fire protection software (COOSA).

He will be missed.

NFSA Participates in 2019 World Burn Congress

NFSA was proud to participate in the 2019 World Burn Congress of the Phoenix Society of Burn Survivors! Director of Outreach & Government Relations, Vickie Pritchett, represented NFSA and Common Voices at the event in Anaheim, California. She was joined by Common Voices advocates Amy Acton, Pam Elliott and Justina Page.

"This event is special and it's always an honor to be a part," shared Vickie. "Burn survivors inspire all of us who work within the fire & life safety world, and they encourage us to keep advocating for fire sprinklers in order to prevent future injuries and deaths."

"NFSA is proud to support the Phoenix Society for Burn Survivors, said NFSA President Shane Ray. "I can still remember the first World Burn Congress I attended and the difference it made to me, reminding me WHY we do what we do. The NFSA is committed to our partnership and will continue to partner in preventing and mitigating the impact of fire on people and property."•

Potter Electric Appoints Gerald Connolly as CEO Bernie Lears Moves into New Role as Company Continues Rapid Growth

Potter Electric Signal Company announced it has appointed **Gerald Connolly** as CEO, effective July 29th. As had been planned since Gryphon Investors made a majority investment in the Company in 2017, Mr. Connolly succeeds Bernie Lears, who has elected to retire after almost 40 years with the Company and who will continue to serve on Potter's Board of Directors as a Vice Chairman.

Mr. Connolly is an accomplished 30-year veteran of the building solutions and fire safety industry. He comes to Potter most recently from electrical and digital building infrastructure specialist Legrand SA, where he was President of the $500 million wiring device solutions division, Pass and Seymour. Prior to that, he served as Vice President and General Manager at Brooks Automation, where he turned around a $150 million technology division and developed their strategic growth plans.

Prior to Brooks Automation, Mr. Connolly served as President of Kidde-Fenwal, Inc., a United Technologies company, where he initiated growth strategies as he oversaw global expansion plans for this $350 million fire and safety division. While at Kidde-Fenwal, he also served as General Manager, Global Fire Protection Systems. Earlier in his career, Mr. Connolly held various roles at Advanced Safety Systems, Inc. and Pittway Corp. Mr. Connolly holds a B.S. in Electrical Engineering and an M.S. in Engineering Management from Northeastern University in Boston, Massachusetts.

"I have long admired Potter for its outstanding products and reputation, and I am now thrilled to play a role in the next stage of the Company's growth," said Mr. Connolly. "As fire and life safety protection and code compliance become ever more critical in commercial, industrial, and residential buildings, opportunities for the Company will only increase. I look forward to working with Gryphon and the Potter team to continue the development of industry-leading products in sprinkler monitoring and fire systems, and to expand internationally. I am excited to build on the relationships Potter has cultivated with its key partners and customers to bring these products to market and cement our role as a global leader."

Elizabeth Henry Appointed Telgian Engineering & Consulting Vice President Of Finance / Controller

Telgian Engineering & Consulting announced the appointment of **Elizabeth Henry** as Vice President of Finance / Controller. In this position, Henry will be responsible for the preparation of operating budgets, overseeing financial reporting and performing essential duties relating to payroll and operations.

Henry brings more than 25 years of finance experience to Telgian, including extensive knowledge of budgeting / forecasting, financial planning / analysis, accounts payable and receivable, taxes / external audit management, banking / Treasury management / bank negotiations, contract reviews and corporate insurance management.

Prior to joining Telgian, Henry served as Controller for Inman Solar Inc. in Atlanta, Georgia. She has also worked at some of the nation's top accounting firms, including Ernst and Young.

Henry earned her Bachelor of Science in Commerce and Business Administration from The University of Alabama.

For more information, please visit Telgian.com.

Terrence Magee *Appointed Telgian Fire Safety Vice President, Operations*

Fire Safety announced the appointment of **Terrence Magee** as Vice President, Operations. In this position, Magee will be responsible for the customer service and customer care operations for the fire and life safety testing, inspections, and repair company. Magee brings more than 30 years of operations experience to Telgian, including extensive knowledge of quality systems management, supply chain logistics, operational excellence, and continuous improvement.

Prior to joining Telgian, Terrence served as Senior Manager, Continuous Improvement and Business Transformation with Ciox Health. There, he led the deployment of divisional business transformation initiatives within Operations and Quality. He has also served in a number of global leadership roles in Quality Systems Management and Supply Chain Logistics at Hospira, a Pfizer Company.

Magee earned his Bachelor of Science degree in Biological Sciences from California Polytechnic University and completed post-graduate Masters Certification in Supply Chain Management from the University of San Francisco. Additionally, he is a certified Lean Six Sigma Black Belt.

For more information, please visit Telgian.com.•

Being There

A short trip delivering supplies to the victims of Hurricane Dorian has touched countless lives throughout West End, Bahamas. On September 6th, four boats delivered over 10,000 lbs. of supplies and food to its people, spreading hope and making lifelong connections.

Total Lifesafety Inc, President **Bryan Polhemus**, based out of Stuart, Florida and a member of the FFSA Board of Directors, held a company-wide supply drive to collect much needed relief items for the Bahamian people in West End.

Along with friends and other compassionate companies, Bryan and his son, Noah, filled four boats headed to the grief-stricken country.

Thank you, Bryan and Total Lifesafety, Inc. for doing such great work for our friends who have suffered so much in the Bahamas. •

TOTAL LIFE SAFETY CORPORATION

CHAPTERS in ACTION

NFSA Los Angeles Chapter Elects Board Members

The Los Angeles Chapter met on August 15th to accept nominations for new board members. Nominated were Randy Howell, President of Kimble and Company for Chapter President and Jeff Landon, Regional Sales Manager for Lubrizol. Bruce Lecair, Associate Director of Field Operations, will remain as Chapter Secretary. Don Becka, President, Qualco Fire Protection and Stuart Cook of Potter-Roemer served as President and Treasurer from 1999 through 2019 and are stepping down.

Columbia-Willamette Chapter News

The Columbia-Willamette NFSA Chapter bid farewell to Vice Chair **Don Krause**, who retired in September from Viking Automatic Sprinkler Co. after 39 years. Don was a part of the original team that formed the chapter in 2012. Don also played a key role in bringing together industry leaders to address emerging fire protection issues in Oregon, including distillery fire protection, new airplane hangar rules, and fire sprinkler contractor licensing. His leadership and expertise will be missed!

In October, both the Puget Sound and Columbia-Willamette chapters hosted area fire marshals for a Fire Marshal Roundtable. Each jurisdiction shared an update of new initiatives and ongoing issues at these well-attended Chapter meetings.

The December chapter meetings will be devoted to showcasing our supplier members. At both the Puget Sound and Columbia-Willamette meetings, contractor and AHJ members will have an opportunity to see new products and talk directly with the supplier expert.

NFSA North Texas Chapter & FSCATX Joint Meeting

Free Lunch & Learn – Texas Fire Sprinkler Industry Licensing Discussion Meeting

When: November 21, 2019 at 11:30 a.m. – 1:00 p.m.

Where: Dallas/Fort Worth, TX

Who: All Fire Protection Industry

Join FSCATX and NFSA for a Roundtable Discussion Meeting with the Texas State Fire Marshals Office. Assistant Chief Ernest McCloud will provide Texas updates and answer questions regarding fire sprinkler licensing.

Contact Regional Manager Cindy Giedraitis at cindyg@nfsa.org for more information.

The Capital Region Chapter continues the "Developed for the Inspector Series"

The Capital Region Chapter continues the *"Developed for the Inspector Series"* program with a great line-up in Laurel Maryland. This program continues to have all-star line-ups, and this program is no different.

Thanks to all our distinguished presenters:

Terry Victor, *Grinnell Fire Protection, Anti-freeze and Dry Systems*

Jonathon Hart, *NFPA, Fire Protections System in NFPA 1*

Mark Kessler, *Reliance Fire, Inspection Testing and Maintenance Requirements*

Jake Lehmann, *South Teck Systems, Inspecting Nitrogen Systems and Corrosion Control*

The Chapter continues to work with the Maryland State Firemen's Association as they retrofit their Annapolis headquarters. The Chapter conducted a site visit to better understand the scope of work. This historic site is only steps from the Maryland Capital building and will allow Maryland legislators a firsthand look at historic fire sprinkler retrofit.

The Chapter also held two fall training programs at the joint Fire Sprinkler Lab at the University of Maryland – Maryland Fire Rescue Institute. This amazing fire sprinkler training lab is the partnership between the Capital Region Chapter membership, the Office of the State Fire Marshal, and the University of Maryland's Fire Protection Engineering School and MFRI. The programs allowed the manufacturers of all the equipment an opportunity to showcase their products for the membership.

Wisconsin's Fire Sprinkler Advocacy Program

The Wisconsin Chapter has developed a fire sprinkler advocacy program for AHJs to assist in promoting fire sprinklers as one of the levels of fire protection at home and work. This advocacy program rewards participating fire departments by paying for a free membership for the following year.

Participation includes reporting fire sprinkler saves within their community, hopefully with pictures and a follow-up narrative about the event and utilizing supplied signage. Seven departments have signed up and displayed signage, with another 20 to be contacted. One of the first departments to participate was the Waukesha Fire Department. The Department has been participating in sprinkler saves for years and provided information on two fires – one in a protected building and

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another without – detailing the different outcomes. The picture shows NFSA "Buys Life" signage with their logo outside their main station and administrative offices. Waukesha is the hometown of Les Paul – pioneer of the solid body electric guitar.

NFSA Illinois Chapter ITM Committee

The Illinois Chapter ITM Committee has decided to have preset quarterly meetings based around the same schedule as the Chapter Meetings. They plan to have the 2020 Chapter Meeting dates and will set up committee meeting dates for 2020 shortly.

The Committee decided their purpose/agenda will be to continue focus on training and educating AHJs, Building Owner and Managers. The Committee will attempt to gear its functions more towards AHJs, rather than filling the room with contactors, if possible. Different ideas on how to get more AHJs to attend were discussed and the main consensus was to make it free of charge. That may be done with contractor sponsorships.

Different ideas on Seminars or Mini-Seminars were also discussed and it was agreed that the Committee would hold at a minimum (2) each year, maybe Spring and Fall, at North and South locations to try and attract different AHJs. It was decided that f a contractor wanted to attend, they might have to bring with or sponsor an AHJ. The possibility of holding an annual Contractor/AHJ Round Table Event separate from the Seminars was discussed, including a training class at the newly remodeled Local 281 Training Center that would be geared towards AHJs.

Northwest Fire Sprinkler Industry Advocate Retires After 39 Years

Don Krause, second from left, has been instrumental in leading the Columbia-Willamette NFSA Chapter's efforts to require fire sprinkler contractor licensing in Oregon. With Don to testify at the Oregon legislature are John Berres, Cosco Fire Protection (left); Michael Trabue, Hillsboro Fire Dept., Suzanne Mayr, NFSA Northwest Regional Manager; and Chuck Rabitoy, Patriot Fire Protection.

Don Krause, who serves as Columbia-Willamette's NFSA Chapter Vice-Chair, will be retiring on Sept. 30 after 39 years with Viking Automatic Fire Sprinkler Co.

After beginning his career as a surveyor, Don joined Viking's Portland Oregon office as a designer in 1980. He quickly transitioned into estimating and project management. He rose to position of Vice President in 2002.

Don holds a NICET Level III for Water-Based Systems Layout, as well as certifications for Special Hazards. Don has been a part of at least 1,500 to 2,000 sizeable projects in his career.

"The most impressive thing about Don is that everyone knows him," said Grant Laine, Project Manager at Viking. "He is a fixture in the fire protection world in our area. Everyone at some point has worked with Don."

Don has been instrumental in promoting the fire sprinkler industry, particularly efforts to ensure opportunities for educating both fire sprinkler company personnel and AHJs. He served as an officer for the Society for Fire Protection Engineers Cascade Chapter for approximately 25 years.

When NFSA reached out to Portland area contractors to form the Columbia-Willamette NFSA Chapter, Don lent his organizational skills to ensuring the chapter was inclusive and featured informational speakers at the meetings. He also took a leadership role in addressing industry hot button issues.

As Oregon struggled to deal with an explosion of small craft distilleries but no formal fire protection guidance, Don assembled a summit to bring together all affected parties. Contractors and AHJs met with distillers to learn about the facilities, distilling process and storage requirements, resulting in better fire protection well ahead of the national code bodies.

Don took a leadership role in voicing concerns over relaxed fire protection rules that Oregon was considering for aircraft hangars, again pulling together experts to share information and rallying for involvement in hearings and technical meetings.

Don also has been instrumental in the Columbia-Willamette NFSA Chapter's long-term push for fire sprinkler contractor licensing in Oregon. His experience and longevity in the industry lent substantial credibility when meeting with other stakeholders and legislators.

"Don's role as Vice Chairman of our local NFSA Columbia-Willamette chapter has been vital and pivotal in the establishment and development of our fire sprinkler business, respectively," said John Berres, Columbia-Willamette NFSA Chapter Chair. "Don's commitment in striving for fire sprinkler contractor licensing and ensuring best practices in our industry will be continued in our tradition and part of his legacy! Don is truly one of a kind, a pioneer, and his knowledge and wisdom will be missed in our local chapter."•

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WISCONSIN CHAPTER HOSTS THE 31st ANNUAL BURN CENTER GOLF INVITATIONAL

On August 26th, the Wisconsin chapter held their 31st annual charity golf tournament benefitting the Ascension Columbia Saint Mary's Burn Center in Milwaukee and the Wisconsin Youth Burn Camp. The event was held at Grand Geneva Resort and Spa. In Lake Geneva on what turned out to be a cool and rainy day – sometimes torrential rain. However, the weather did not dampen the wonderful networking among Wisconsin NFSA members, the generosity of the event sponsors, or the more than 150 golfers who attended – including NFSA President, Shane Ray.

Typically, about 180 golfers attend this event. Last year's Invitational drew 186 golfers and raised over $110,000. This year's registration stood at 198 before the rain reduced that number somewhat. Over the years the Invitational has donated over $2.5 million to burn prevention and survivor care. Columbia Saint Mary's Regional Burn Center treats 150-200 patients annually, and the average stay is 14 days. Their public education and outreach efforts touch more than 13,000 annually.

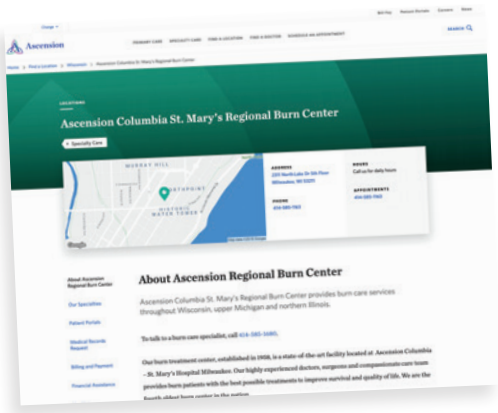
The Summer Camp for Burn Injured Youth is a place for kids 7-17 years of age can recover from their burn injuries in a nurturing, restful, supportive environment with other burn injury survivors. The camp provides the unique needs of young burns survivors, promotes healing, and focuses on "life beyond their injuries." The camp is located at Camp Timber-lee in East Troy, Wisconsin, and covers 600 acres with many fun and engaging activities.

The Invitational included lunch, golf, and an evening program with dinner and golf awards.•

NFSA Wisconsin State Coordinator Marty King (L) and former Wisconsin Regional Manager Dan Gengler at the Invitational

Link to Ascension Columbia Saint Mary's Regional Burn Center:

http://bit.ly/stmaryburn



John F. Malloy and Jane H. Malloy to Chair United Way of the Greater Lehigh Valley's 2019 Campaign

John F. Malloy, Chairman, President and CEO of Victaulic Company, and his wife Jane H. Malloy will co-chair the 2019 campaign for United Way of the Greater Lehigh Valley (UWGLV

Through annual campaigns, United Way raises money to invest in programs that directly impact the lives of 75,000 people each year and create opportunities to improve the health, education and safety of everyone in the Greater Lehigh Valley.

"On behalf of the 1,100 Victaulic employees that call the Lehigh Valley region home and more than 4,000 Victaulic employees worldwide, we are honored to chair this year's campaign. We're excited to help support United Way of the Greater Lehigh Valley's campaign efforts and help raise much needed funds and awareness that in turn helps the many in need right here in the Lehigh Valley," said John Malloy.

A part of the Lehigh Valley business community for almost 40 years, Victaulic is celebrating 100 years of innovation since its first patent in 1919. Victaulic and its employees have donated millions of dollars to UWGLV initiatives, and they are deeply engaged as a Community School partner of Cheston Elementary School in Easton Area School District. "United Way of the Greater Lehigh Valley offers unique and impactful programs that truly make a difference in the community. Aligning with United Way, Victaulic is corporately committed to and actively engaged in the betterment of the global communities where we do business and where our employees live," added Malloy.

"Victaulic employees share a passion for volunteering. Whether it's providing backpacks filled with school supplies for kids at Cheston Elementary School, making sure students are prepared for an emergency through the American Red Cross Pillowcase Project, or collecting toiletries for ProJeCt of Easton, they are always ready to support their neighbors," said David Lewis, President of UWGLV.

Senator Jim Risch Visits Perimeter Solutions Post Falls, Idaho Operation

Perimeter Solutions announced former Idaho Governor and current US Senator Jim Risch toured the company's Equipment Service Center and River City Fabrication operations in Post Falls, ID as part of an Idaho business review.

Senator Rasch, Chief of Staff - John Insinger and Regional Director - Sidney Smith visited the company's operations where they saw first-hand company products and technologies employed to protect wildland firefighters, in addition to some recent investments in manufacturing capabilities. Senator Risch thanked employees and company officials for their dedication and support to public safety in Idaho and to wildland firefighters nationally.

Perimeter Solutions is the manufacturer of PHOS-CHEK® Long-Term Fire Retardant, used by the USDA Forest Service, CalFire and many other fire management agencies around the world, for prevention and suppression of wildland fires. First Response Fire Rescue and River City fabrication joined the Perimeter Solutions family in Mach, 2019.

More info: www.perimeter-solutions.com.

Viking Introduces First-in-the-Industry Stainless Steel Fusible Link Sprinkler

The Viking Corporation has introduced a stainless steel sprinkler with a fusible link operating element – the first of its kind in the fire protection industry. The new Model VK368 is a standard response pendent sprinkler and is cULus Listed and FM Approved for corrosive environments.

The Model VK368 features a stainless steel sprinkler body, deflector, and seat. With a solder link operating element, the sprinklers are especially well-suited for food processing facilities where exposure to glass may be a concern. Available with an intermediate temperature rating of 205°F (96°C), the 8.0 (115) K-factor Model VK368 has a 3/4" NPT thread and uses a standard sprinkler installation wrench. Versions with a 161°F (72°C) temperature rating and 20 mm BSPT options will be available at a later date.

The new stainless steel sprinkler joins Viking's wide selection of corrosion-resistant sprinkler options including "Electroless Nickel PTFE" (ENT) plated sprinklers, which are available throughout a significant portion of the Viking sprinkler product line. Additionally, stainless steel flat cover plates are available for Viking's Mirage® Model VK462 and Model VK538 Concealed Pendent sprinklers, and the Freedom® Model VK494 Residential Concealed Pendent sprinkler.

For more information, visit visit www.vikinggroupinc.com.

Viking Announces Enhancements to XT1 Sprinkler Platform

The Viking Corporation announced several enhancements to its next-generation XT1 sprinkler platform. In addition to two new wrench types, Viking announced the availability of new, smaller sprinkler guards and water shields and an FM Approval for use of XT1 upright sprinklers on vacuum fire protection systems.

Featuring a smaller profile and more compact design, the XT1 line of sprinkler guards and shields may be used with XT1 Model

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sprinklers in applications where mechanical damage is a concern or where water shielding is required, such as in-rack sprinkler systems, under grating, or on pilot sprinklers for deluge systems. Viking Model XG Sprinkler Guards and XWU Upright Water Shields are available loose or pre-assembled at the factory. Model F-1 Pendent Water Shields are also available for field installation.

Four wrenches are available for the XT1 sprinkler platform - the Installer's/Standard Wrench, Recessed Socket Wrench, Guard Wrench, and Straight Wrench. Each wrench was specifically designed for use with the XT1 line of fire sprinklers and engineered with hexagonal cutouts to engage the wrench boss in a specific way to prevent damage during installation.

Additionally, XT1 upright sprinklers are FM Approved for use in vacuum sprinkler systems. Vacuum sprinkler systems may be used in areas where corrosion mitigation is a concern.

To learn more about the XT1 sprinkler platform, visit www.vikinggroupinc.com/xt1.

Kennedy Valve Introduces New Tamper Switch

Kennedy Valve of Elmira, NY has released its new KVOS2 tamper switch. The new KVOS2 switch is UL/ULC listed. The factory installed tamper switch is designed to seamlessly integrate with Kennedy's fire protection line of OS&Y valves removing significant field install issues and offer a long life of continuous service. With a bracket less design, this robust device pairs well with Kennedy's OS&Y product line and is made from durable brass and stainless-steel components. Factory installed and tested removesthird party interaction for a "set it and forget it" option. The KVOS2 is NEMA 4X and 6P rated, suitable for indoor or outside placement. Additionally, if removed from the valve the KVOS2 will send a tamper signal back to the fire alarm control panel.

The factory installed tamper switch is available now on valves 2 ½" thru 12" for the following configurations: threaded, groove by groove, flange by groove, and flange x flanged end conditions. See the KVOS2 at www.kennedyvalve.com or contact us at sales@kennedyvalve.com or 607.734.2211.•

REGIONAL ROUNDUP

From Maine to California, and every place in between, NFSA Regional Managers bring the best of the Association right to your doorstep. Helping our members is Job #1.

New England Region

MICHAEL YOUNG
Regional Manager

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

Regional Presentations in Massachusetts Aim to Increase Fire Sprinkler Benefits Awareness

NFSA staff are teaming up with the Home Fire Sprinkler Coalition and the Massachusetts Fire Sprinkler Coalition to deliver four regional presentations in Massachusetts to local Building Officials and Planning and Zoning Board Members to speak about developer incentives and design advantages which may be utilized by incorporating residential fire sprinklers into new residential homes and development plans.

The building industry has been reluctant to embrace residential fire sprinklers as part of the construction process in one- & two-family dwellings and townhouses, citing financial costs. Over the last decade, building codes and design standards have been amended to offer design 'trade-ups' for developers and the use of alternative materials and methods of construction to builders to offset the costs of installing fire sprinklers. These incentives and alternatives are intended to lessen the financial impact of installing fire sprinklers to increase fire and life safety for occupants.

The Home Fire Sprinkler Coalition advocates for the installation of residential fire sprinklers in homes to increase occupant safety from fires. Today's lightweight construction materials and synthetic interior furnishings burn much faster than older materials. Rapid heat release rates produce smoke, soot, toxic gases and poisonous chemicals and carcinogens which can inhibit occupants escaping to safety.

Demonstrating that modern synthetic-based furnishings burn much faster in today's dwellings.

Each year in the U.S., nearly 3000 deaths and 20,000 injuries and burns are sustained in fires. 80 percent of fire deaths occur in the home environment. Residential fire sprinklers act fast to contain and control fires before they grow, allowing occupants time to escape to safety. In addition to increasing life safety for occupants, responding fire departments arrive to find incidents that are less difficult to manage, a safer work environment with less likelihood of structural collapse, reduced risk of death or injury and less risk of exposure to cancer causing carcinogens.

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New York Region

DOMINICK KASMAUSKAS
Regional Manager

NEW YORK

New York State Legislation Watch

Contractor licensing language and fitter licensing language are the main focus now. With the second year of this session coming up there needs to be amending of both the bills so that they dovetail. The Assembly has noted that as long as the Bills target Department of State (contractors' license) and Department of Labor (fitters' license), that neither will move.

Senate Bill 1645

Regional Manager Dominick Kasmauskas has met with Senator Brooks and staff to amend with language to guard against gouging estimates. Kasmauskas noted on one- and two-family houses, "another challenge is, the qualified fire sprinkler contractors with bids of $9.00 or $12.00 per square foot. The contractors state that 'I'm busy and I'll do it if I can get it at that price,' Kasmauskas added, "I'd rather my friends NOT bid as the debate can be focused on residential fire sprinkler challenges in New York State codes rather than the homebuilders testifying at the State Codes Council and other public hearings on over-pricing."

The New York State Residential Fire Sprinkler Task Force, of which Kasmauskas was a member several years ago, noted about $2.40-$3.60/sq ft for one stand-alone home in New York. There have not been indications of that changing. If there has been, Kasmauskas would like to know what the going rates are in the various sectors of New York State.

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Mid-Atlantic Region

DELAWARE, NEW JERSEY, PENNSYLVANIA,

New Jersey Notes

This season, NFSA's New Jersey Chapter had over 50 burn events booked, including burn trailer events, side-by-sides, and side-by-side grants. Chapter members worked as far north as Newton in Sussex County, and as far south as Somers Point in Atlantic County, as well as everywhere in between. Events included school fire prevention days, fire department open houses, touch a truck events, as well as other community events.

The primary goal of these burns is to demonstrate the effectiveness of residential fire sprinklers. It is the hope of the New Jersey Chapter that future homeowners will consider fire sprinklers in their homes after seeing a demonstration. Furthermore, the chapter hopes that these burns will get the attention of elected officials and have them view sprinklers in a positive light.

In addition to promoting the burn trailer, the New Jersey Chapter members are also planning the upcoming Area II Conference. The Conference will take place on September 10th through the 13th, 2020 at the Crystal Springs Resort in Hamburg, New Jersey. Stay tuned for more info!

Pennsylvania Notes

Pennsylvania was a strong contender with New Jersey this year in terms of events. The PenJerDel Chapter had nearly 50 events scheduled, ranging from as far south as Dover, Delaware to as far west as Harrisburg, Pennsylvania. This year's calendar featured a first: a side-by-side sprinkler demonstration at the State Capitol for a special press event on October 21st. This event was in support of SR 6 legislation and was sponsored by the Pennsylvania Fire and Emergency Services Institute.

In addition to a busy burn season, PenJerDel staff is also happy to report on a residential sprinkler save in Chalfont, Pennsylvania. A fire started in a family's basement from a hoverboard charging. One sprinkler head reacted and completely contained the fire, allowing the family the vacate the house. The local fire department responded and had the situation under control quickly. As a result of the sprinkler and the efforts of the fire department, the family was only out of the house for an hour and a half and was able to go back in the house that same night. Chalfont, Pennsylvania, like other municipalities in Bucks County, was one of the first in Pennsylvania—if not the country—to mandate fire sprinklers in one- and two- family residences.

This fire was by no means an isolated event. It parallels a similar fire in Pennsylvania, albeit one with a much different outcome. A 2017 fire in Harrisburg started when a hoverboard caught fire. The family was in the house at the time and even witnessed the ignition. Sadly, they were not able to escape, and this fire lead to the deaths of two.

For an in-depth comparison to these two fires, keep an eye out for an upcoming article by NFSA's own John Waters that will document these two similar fires.

Capital Region

TERIN HOPKINS
Field Service Coordinator

MARYLAND, VIRGINIA, WASHINGTON D.C.

Metro Chiefs at NFSA HQ

The Metro Chiefs Maryland Fire Marshal Committee to hold their last meeting of the year at National Fire Sprinkler Associations Conference and Training Center at NFSA Linthicum Heights Headquarters. This statewide dedicated group of fire marshals continue to advocate for life safety systems and work tirelessly to ensure public safety.

Columbia Building Explosion

An early Sunday morning building explosion in a commercial building rocked the Columbia Maryland community. The explosion from the suspected gas leak could be felt several miles away. Luckily the building was not occupied at the time and there were no reports of injuries. The building is considered a total loss.

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Southeast Region

BRIAN BIGGS
Regional Manager

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

Tennessee

The Tennessee Fire Sprinkler Contractors Association held its annual Fall Fling Conference in Pigeon Forge on September 25 – 28. It was a great turn out with a mix of Sprinkler Contractors, Engineers, Designers and AHJs from local- to state-level inspectors. We heard from Industry Manufacturers, Suppliers and NFSA Staff

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Members during the training sessions.

Richard Smith, who has served on the Tennessee Fire Sprinkler Contractors Association Board for the past 35 years has decided to retire and enjoy time on the farm and with his family. Richard has been very instrumental in the fire protection industry in Tennessee. The TFSCA board would like to wish Richard well in his retirement. Richard has agreed to continue being the master chef for the TFSCA annual cookout that happens each May.

The 2019 Fall Fling was closed out with the cookout, where we were able to fellowship with each attendee and their families. We might have had a few rounds of cornhole while everyone was networking.

"I am especially proud to have taken part in this great event, said Regional Manager Brian Biggs. "Our Tennessee members dedication to putting on a first-class event, with first class speakers and great networking, gets better and better every year. I highly encourage everyone to watch for information on the 2020 Fall Fling and to make it a point to be there! Members supporting members is what it's all about."

Brian Biggs
NFSA'S Regional Manager / Southeast
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Florida & Puerto Rico

LORRELL BUSH
Regional Manager

FLORIDA, PUERTO RICO

We need your voice!

Annually, for the past ten years, the Florida Fire Sprinkler Association heads to Tallahassee to walk the halls, meet our legislators, share concerns and advocate for a safer Florida. The reason we do this is to meet with our representatives and discuss important policies that make Florida a safer place to live. It's more than just setting up meetings and walking the halls, it's constant education to those in our highest levels of government as we share with them the benefits of fire sprinklers and the importance of keeping our citizens safe.

They are not sprinkler people and it is our job to help them stay informed. It is not just walking the halls and lobbying for life-safety, it's building relationships with those who represent us, the ones who have the power to make changes.

Don't sit on the sidelines, come join your FFSA Board and be a difference maker. This year we will be joined by FFEDA, FFMIA, AFSA, AAF and AFAA. Mark your calendars for February 10th and 11th , 2020. RSVP to bush@nfsa.org with your desire to make a difference. If you can't come, sent someone on your team. We cannot be heard if we do not use our voices.

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Great Lakes Region

RON RITCHEY
Field Service Coordinator

INDIANA, MICHIGAN, OHIO, WEST VIRGINIA, KENTUCKY

Michigan Chapter Golf Outing

The NFSA Michigan Chapter held its annual golf outing and dinner on September 11th at the Devils Ridge Golf Club located in Oxford, Michigan. The event was well-attended and all had a great time.

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Illinois Region

BOB TINUCCI
State Coordinator

ILLINOIS

State of Illinois Regional News

The Illinois Office of the State Fire Marshal has adopted an Administrative Policy effective September 6th, 2019 to recognize (ASSE) American Society of Sanitation Engineers 15010 Certification as an added credential to perform inspection & testing of fire sprinkler systems. This is an alternative to the current to NICET II certification.

Note:

This is a higher-level qualification than the currently referenced NICET II and generally comparable to NICET Level III. It requires that an individual have a minimum of five years of documented practical experience in the fire sprinkler industry. The experience must include a minimum of three years of inspection, testing and maintenance. The remaining two years of experience may include either design or installation.

The certification process includes a 200-question written exam covering NFPA 25, NFPA 13, NFPA 14, NFPA 20, and other aspects of fire protection systems. There is also a practical examination that includes performing the following tests, along with evaluation of the test results:

- Full-flow trip test of a dry-pipe system
- Trip test of a preaction system
- Main drain test
- Test of an electric motor driven fire pump
- Test of a diesel engine driven fire pump

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Missouri Region

PAUL RICHARD
Area Coordinator

MISSOURI

Columbia, Missouri City Council Amends Fire Code

On September 4th, the Columbia City Council amended its fire code to require more businesses to have sprinkler systems, but exempted six establishments.

The International Fire Code requires all restaurants, bars and nightclubs that serve alcohol and have an occupancy of 300 or more to have automatic fire sprinkler systems.

Five businesses in Columbia would have had to update their systems before the amendment was passed. After the council's decision to amend the code, those restaurants will not have to install the sprinklers. "We recommended that that language only be applied towards new businesses and exclude existing businesses," Columbia Fire Department Assistant Chief Brad Fraizer said.

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Fraizer said the city considered "our inspection program, existing life safety systems in those buildings and their means of egress capacity."

But new businesses would have to install the automatic fire system sprinklers.

If a new business that meets the requirements moved into a building that already meets requirements but does not have the sprinklers, such as Flat Branch, the new business would not have to install the sprinklers, Fraizer said. But if that new business moved into a new building or something with lesser requirements, such as an office space, it would be required to install the sprinklers.

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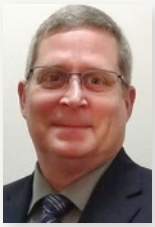
BM Fire attacks the Flashover

PHOTO BY MIKE YOUNGERS, Public Safety Photographer



North Central Region

TIM BUTLER
Regional Manager

IOWA, MINNESOTA & WISCONSIN

NFSA Celebrates Spring Lake Park-Blaine-Mounds View Fire's 75th Anniversary

On Saturday, September 14, the Spring Lake Park-Blaine-Mounds View Fire Department (SBM FD) celebrated their 75th anniversary with a communitywide event at the National Sports Center in Blaine, Minnesota. The Minnesota Chapter of NFSA provided two side-by-side sprinkler demonstrations for the general public, elected officials and fire department members present. It was the first time the Minnesota Chapter's side-by-side trailer has been used twice in one day.

The first demonstration burn kicked off at 11:00 a.m. with about 75 people in attendance. The smoke alarm activated 15 seconds after ignition, and the sprinkler device activated 35 seconds after ignition. On the unprotected side of the trailer, the smoke alarm again activated in 15 seconds, and flashover occurred three minutes into the burn. Three minutes!

The second demonstration was held at 5:00 p.m. The 6-hour interval between burns provided a wonderful opportunity to discuss the NFSA and its missions and answer fire sprinkler and fire prevention questions from citizens, fire officials, and the many children lured to the trailer by some stuffed animal props.

The crew from SBM FD Station 2 overhauled the trailer between burns, hanging new drywall, installing carpeting, and loading furniture for the second demonstration. They were wonderful partners and worked tirelessly to make the dual-event possible; there was no way we could have done two demonstrations in a single day without them! They also took time to speak with the crowd, present local fire prevention messages, and participate in other live demonstrations throughout the afternoon.

The Firefighting Crew from SBM FD Station #2
Top (L-R): Reed Younker, Laura Hamer, and Walter Morris Bottom (L-R): Jeff Baker, Matthias Gosch, Jeff Jahn, Zack Hall, and Julie Hawkins

On the second demonstration burn, the smoke alarms again sounded about 15 seconds into the burn, and the sprinkler activated at 35 seconds again. Flashover occurred right around three minutes into the burn. The crowd numbered just over 100 people, and NFSA staff answered a number of questions about sprinkler use, cost, and retrofit opportunities.

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SBM Fire's anniversary celebration was a wonderful opportunity to showcase NFSA missions, the Minnesota Chapter's side-by-side demonstration trailer, and the effectiveness of residential fire sprinklers. Many families saw firsthand the prompt activation of both smoke alarms and sprinklers, and they had the opportunity to see the dramatic and destructive results of an uncontrolled fire. It was a most memorable event, and NFSA was proud to be part of the celebration of this progressive and professional fire department's 75th anniversary!

"I survived a home fire…. thanks to the life-saving effectiveness of a residential fire sprinkler system!!"

Tim Butler
NFSA's Central Region Manager
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North Central Region

MARTY KING
State Coordinator Wisconsin

Sprinkler Save at Madison, Wisconsin Assisted Care Home

On October 14th, a recalled dehumidifier at a Madison, Wisconsin assisted care home malfunctioned, causing a fire.

Madison Fire Department crews were notified after a fire sprinkler activated, sending an alarm.

The sprinkler kept the fire contained, which allowed on-site staff to use a fire extinguisher to put out the remaining fire.

The fire department said that although the fire produced a lot of smoke, damage was confined to the dehumidifier, and there were no injuries or displaced occupants because the fire sprinkler caught the fire right away.

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North Central Region

TOM BRACE
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Sprinkler Save at Eden Prairie Mall

On August 14th, a fire broke out near the AMC Theater at Eden Prairie Center.

According to the Eden Prairie Fire Department, the fire occurred around 7:45 p.m. in a back hallway behind the AMC theater, where it was quickly controlled by the mall's fire sprinkler system.

Authorities say there were no injuries and no other businesses in the mall were evacuated. The mall was open for business the next day.

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Kansas Region

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KANSAS

Sprinkler Save at Topeka, Kansas Apartment Complex

On September 11th the local fire department received a call just after 8:00 p.m. of a fire in a second-floor apartment at a Topeka apartment complex

Topeka Fire Department shift commander Chris Herrera said additional crews were called as a precaution, since the apartment building is several stories tall, and many residents use wheelchairs and would need assistance getting out. However, he said a closed door kept smoke and flames from spreading beyond the one apartment, and residents were able to shelter in place, rather than evacuate.

Herrera also said a fire sprinkler in the apartment got a head start on putting out the flames before crews arrived. He believed the fire started accidentally, when an item fell on the stove while the occupant was cooking.

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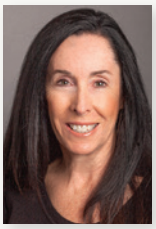

South Central Region

CYNTHIA GIEDRAITIS
Regional Manager

ARKANSAS, LOUISIANA, OKLAHOMA, TEXAS

Moments That Matter in the South-Central Region

(Above) Advanced Tech Training was offered July 30-August 1, 2019 in Dallas Texas. This advanced layout design class provided NICET III & IV Preparation for 21 designers from all over Texas and the world. Advanced Tech students were treated to a behind the scenes tour of the Gaylord Resort in Grapevine. Thank you to Grapevine Fire Marshal Bryan Parker and Gaylord Hotel Engineer Brian Cox for a great tour!

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(Previous page and above) Thank you to Siemens Industry, Inc – Building Technologies Division. On August 8, 2019; over 120 local fire protection officials and building managers were treated to a Free Day of Training featuring NFPA 25 & 72 at Minute Maid Park in Houston.

Fire Sprinkler Saves Award

Every year; NFSA South Central counts and coordinates a Fire Sprinkler Saves Award to the city fire department that reports the most fire sprinkler successful activations. The award is presented at the Texas Fire Marshals Annual Conference. The 2018 awardee was the Harris County Fire Marshal's Office with over 25 Fire Sprinkler Saves in 2018! Chief Laurie Christensen and PIO Rachel Moreno received the 2018 award. Chief Roland Garcia, Texas Fire Sprinkler Coalition will present the 2019 Award on October 24, 2019.

Fire Sprinkler Saves are counted through the Fire Sprinkler Saves Website and NFSA Spotlight on Sprinklers.

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Great Plains Region

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Field Service Coordinator

COLORADO, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA, UTAH, WYOMING

Colorado Chapter of ICC (CCICC) Career Fair

NFSA was pleased to participate in CCICC's Northwest Colorado Building Futures with a Career in Construction day on September 4. NFSA's presentation provided information on careers in sprinkler fitting, layout and detailing, design, ITM, plan review, and inspection. A big thank you to NFSA member Western States Fire Protection and Sprinkler Fitter's Local 669, both of which provided resources for the event.

This career fair was offered in Steamboat Springs and was open to students Routt County and the surrounding region. Attendees from four separate school districts participated. While the number of attendees was lower than hoped, CCICC saw the event as a success and plans to bring the event back to the region next year as well as expanding it to other regions within the State. With more advance notice, we will reach out to member contractors within these regions which may be interested in participating in future events.

Side-by-Side Sprinkler Trailers

By the end of the 2019 season, NFSA's Colorado burn trailer will have been seen at almost two dozen events and by many thousands of people, including local officials and policy makers. Because of this level of activity, several local officials requesting the trailer have been disappointed, as it had already been committed to another event. We are working with officials from the some of the surrounding states to determine if we can bring additional trailers to the region. As regional resources, this would provide redundancy and minimize the possibility of missing local events.

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Southwest Region

BRUCE LECAIR
Regional Manager

CALIFORNIA, HAWAII, NEW MEXICO, NEVADA, ARIZONA

Fire Sprinkler Saves in the Southwest

Honolulu, HI - Hotel fire sprinkler system keeps fire from spreading; No injuries were reported. Honolulu Fire Department investigators have determined that the fire was intentionally set, and the investigation has been handed over to the Honolulu Police Department. Fire officials also provided the estimate of fire damages at $1,765,650 to the building and no injuries were reported for this incident.

Reno, NV - Mattress fire at apartment complex contained by fire sprinkler system. Reno Fire crews put out a mattress fire at an apartment complex on Sinclair Street in Reno around 2:00 a.m. Wednesday August 7th. The building was evacuated while crews put out the fire but most residents are back home.

Livermore, CA - Fire sprinkler system helps contain residential fire to bedroom; No injuries were reported. Firefighters quickly extinguished a residential fire in Livermore early Wednesday morning. The blaze was reported at 2:13 a.m. Smoke was visible from the back of the residence, according to Livermore-Pleasanton Fire Department officials. "With the help of the fire sprinkler system, LPFD personnel were able to extinguish the fire.

Las Vegas, NV- Fire in supermarket bathroom quickly stopped by fire sprinklers; No injuries were reported. Las Vegas Fire and Rescue responded to a fire at Marketon Supermarket in the early morning. LVFR spokesman Tim Szymanski said crews were called at about 6:10 a.m. Szymanski said a fire sprinkler quickly put out the fire.

Yuma, AZ - Condominium garage fire kept from spreading by fire sprinkler. No injuries were reported. Smoke was reported in a garage at a residence in the Eldorado Condominiums. Yuma Fire Department personnel arrived to find a fire sprinkler head had activated in the garage and controlled the fire.

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Northwest Region

SUZANNE MAYR
Regional Manager

ALASKA, IDAHO, MONTANA, OREGON, WASHINGTON

News from Around the Region

The Fire Sprinkler Advisory Board of Puget Sound ran an extensive ad campaign during October, starting during Fire Prevention Week. The ad featured NFSA's *"Time Buys Life"* ad.

At press time, the Washington State Building Code Council was in the process of approving a proposal to require fire sprinklers in all townhouses with more than 4 units.

At press time, legislation to require all fire sprinkler contractors doing work in the state of Oregon to obtain an endorsement was starting the process for consideration during the 2020 session.

The NFSA trailer located at Bozeman Fire Department had a busy road trip in October, including an event with Big Sky Fire Dept. at Lone Peak High School, the Montana State Fire Chiefs Conference in Anaconda, and the White Fish Fire Department annual open house.

NFSA will be partnering with the Alaska Central ICC Chapter to present a 2-day Sprinkler System Plan Review instructed by NFSA Director of Codes and Public Fire Protection Jeff Hugo. Register for the Feb 26-27, 2020 on the Alaska Central Chapter website.

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FUTURE DATES FOR NFSA ANNUAL SEMINARS AND BUSINESS AND LEADERSHIP CONFERENCES

April 29–May, 2, 2020
JW Marriott Desert Ridge, *Phoenix, AZ*

May 1-4, 2021
Cosmopolitan, *Las Vegas, NV*

May 3-6, 2022
Sheraton Sand Key, *Clearwater Beach, FL*

May 3-6, 2023
Marriott Marquis, *Washington, DC*

May 7-10, 2024
Wailea Beach Resort, *Maui, HI*

National Fire Sprinkler Magazine

The Flagship Publication of The National Fire Sprinkler Association

NFSM Article Submission Guidelines

National Fire Sprinkler Magazine (***NFSM***), a members-only publication of the National Fire Sprinkler Association, is published six times a year. It offers Fire Sprinkler Industry news and articles of interest to Association members.

Query

Send an e-mail or letter briefly describing your article proposal, why the topic is important, and how it is relevant to our audience. Say something about the sources of your information *(personal involvement? interviews?)* and about your present position and background. Tell us what types of photographs and graphics are available to illustrate your story. Be sure to include an email address and a daytime phone number.
NFSM runs full-length feature articles of approximately 800-1200 words.

Feature Articles

Articles for ***NFSM*** should be on a topic of significant interest to the industry. Articles promoting a specific product or service will not be published. We have advertising opportunities available to boost your sales.

Writing Guidelines

NFSM tries to maintain a straightforward style. Accuracy is vital. All facts should be double-checked before a manuscript is submitted. All manuscripts must be submitted as Word docs, single-spacing between sentences. *Images must be submitted as separate hi-rez jpegs*. Charts and tables must be submitted as separate pdfs.

Each manuscript should be accompanied by a list of resources on the topic at hand: relevant books and reports, conferences, and/or contact people and their phone numbers. To settle points of style, use *The Chicago Manual of Style* (University of Chicago Press).

Illustrations

NFSM uses a variety of photographs, line art, charts, and maps.
We prefer to receive artwork electronically, and all illustrations should include credit and caption information.

Copyrights

Articles must be exclusive to ***NFSM*** magazine and not submitted to any other industry publication, unless prior agreement has been reached. Author is responsible for the accuracy of article and that it does not infringe on any other copyright. All published submissions become the property of NFSA.

Payment

NFSM does not pay for articles; we do recognize an author with a byline and credit. NFSA reserves the right to reject any submission at its own discretion.

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