

**2023 MEMBER TAKEOVER**

September-October 2023

No. 241

# National Fire Sprinkler Magazine

The Flagship Publication of The National Fire Sprinkler Association



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***Inside this issue:***

**Fire Protection for Lithium-Ion Battery Manufacturing Facilities**  
*page 11*

**Choosing NFPA 13R**  
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**Fire Flow Testing and Marking of Hydrants**  
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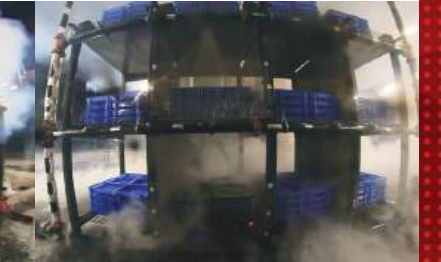
*Li-ion test setup*



*Thermal runaway*



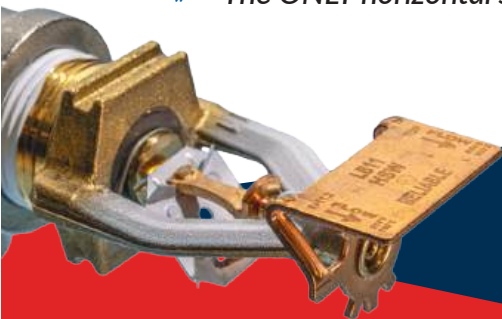
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ON THE COVER

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# National Fire Sprinkler Magazine

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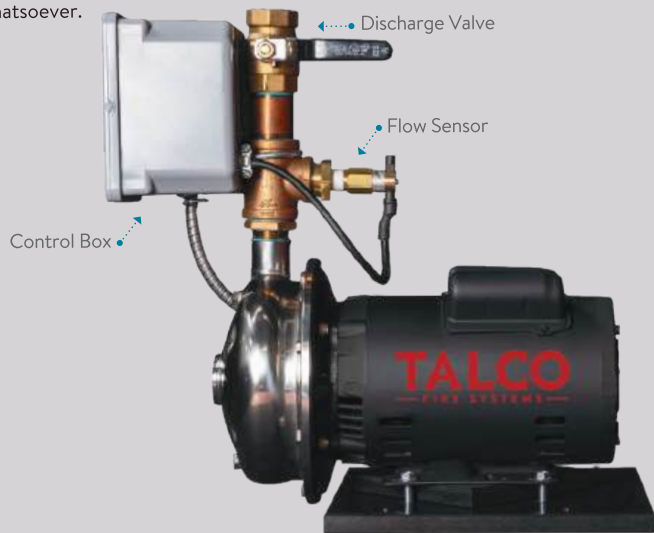
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## From the President's Desk

by Chief Butch Browning

Executive Director, National Association of State Fire Marshals

# When Leaders Mesh, Lives and Property Win

*From Shane Ray: Most of you know that I love building partnerships. Leveraging like-minded associations for the cause of fire- and life-safety is one of my favorite things to do. A big thank you to Chief Butch Browning, for his "takeover" of my article in this issue of our magazine. Chief Browning is making a difference as Executive Director of the National Association of State Fire Marshals (NASFM). He understands America's fire problem and supports the role that fire sprinklers play in being the solution to that problem. Partners in Progress is more than a slogan, and I'm so grateful for partners like NASFM and leaders like Chief Browning. Thank you Chief for being a valued partner!*



The mere opportunity to be of service to others should be the driving force behind every leader. It starts with an internal spark that ignites a mission that is much bigger than any person, group, or organization. This "spark" is the core of a leader's being and is more visible in their passion and purpose they carry out. In my 37 years in the fire service profession, I have learned from many great leaders who were able to portray their vision for enhanced fire safety and prevention, all in the hope to never see a citizen or firefighter in harm's way. This is where you and I have a common responsibility to expand our reach, actively participate, and create profound partnerships every day.

The National Fire Sprinkler Association (NFSA) is a leader in seeking partnerships that spark that change in the life-safety and property-protection industry. The National Association of State Fire Marshals (NASFM) is a proud member of your team and has benefited from the NFSA vision for improved active fire protection across America. Together, we must cultivate change in the minds of elected officials, AHJs, investors, building owners and our citizens. Today's world often forgets the serious risks fires and explosions pose. We have so much more to do!

If we are going to prevent fires, enhance codes and standards, and most importantly, eliminate injury and death,

*"If we are going to prevent fires, enhance codes and standards and most importantly, eliminate injury and death, then we must become better storytellers."*

then we must become better storytellers. Leaders must mesh and build one of the best marketing machines in this world. It starts with the recognition of each group's relevance in a unified front. Many leaders have come to the realization that we are much better as one voice rather than divided. This requires the most important spirit, that of seeking consensus rather than exclusion or dictatorship. There is a simple path that every leader should follow when they sit among a group working to cultivate change; take the path of humility and kindness.

So back to this storytelling, people's understanding comes mostly from what they have heard or read. 20 years ago, when a home fire death would occur, the official story never mentioned the performance of fire detection. Today, the aver-

age citizen believes that only people without fire detection die in fires. How about the role of fire sprinklers? Clearly, the commercial applications dating back to the early 1800s have saved untold amounts of life and property. So, why is it that people think home fire sprinklers are too expensive, not needed and cause so much water damage? How about a building owner who says, "I have been open for 30 years and never had a fire. Why do I have to maintain these systems? I have never needed it, and anyway, I have good insurance." It seems others have used their storytelling abilities to cultivate fiction. It is time for us to execute a united plan to promote full code adoptions, retrofit older buildings, ensure strong community risk reduction and that fire and rescue services are prioritized and effective in every community.

The fire service has begun to move to a marketing model much different than the historical method of inviting people into the fire house. They now make themselves present at events within the community. Most of us are associated with non-fire related organizations, do we take the opportunity to stand among them and bring up the facts of fire protection? Do we use our social media and other press outlets to share historical conflagrations? How about after a tragic event? Do we promote the benefits of active and passive fire protection? Our industry is filled with passionate people whose promise is to protect others through prevention and response, this gives us so much credibility. We must seek out a seat at any and every table we can so that our presence will allow us to use our voice and be that

*continued on page 6*

## From the President's Desk

by Chief Butch Browning

*continued from page 5*

authentic storyteller.

As leaders, we value others and seek to create meaningful relationships through serving the people we are associated with. We must continue to always honor our past by recognizing the knowledge, service, and contributions of our elder fire protection professionals. Having them engaged is vital to the continued success of our mission, may we always remember them and honor their contributions. Today, as we lead by using the efforts of the past to enhance the future, we become the elders who look to the younger generations to mesh our leadership with.

In closing, I ask you to renew your commitment to creating new leaders who we will bring together our family of lifesaving servants. Collectively, we will turn stories of what fire prevention and safety could be into real data that shows tremendous reductions in losses. We will, as one, bring forth real stories of families being protected and safe. I ask you to just remember: *When leaders mesh, lives, and property win!*•

*“We must continue to always honor our past by recognizing the knowledge, service, and contributions of our elder fire protection professionals.”*

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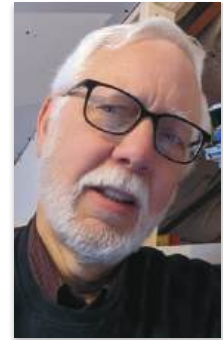
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## Real Life and Artificial Intelligence

*From Jim Boulanger: I hope everyone enjoyed a wonderful summer; it is always my favorite time of year. Our country is blessed with almost unlimited beautiful places to visit, when you add in the great weather, the long days of summer and the 4th of July, what else is there? I guess, looking forward to next year?*

*Once a year the members take over this magazine, and I am asked to identify someone to write the article "From the Chair's Desk". This year I reached out to our great industry legend, Russ Fleming. Russ was our former Vice President of Engineering for most of his career, followed by a term as President, then retirement in 2017. He served our industry and NFSA for over 40 years and rightfully became the namesake for NFSA's annual award, The Russel P Fleming Technical Service Award." I know many of you wonder as I did, how is Russ doing...so here goes.*



When Jim Boulanger invited me to be the guest author in this issue for his "Chairman's Desk" column, he suggested I could either write about what I've been doing since retiring from the NFSA in 2017 or write about a current topic of my choice. As the title indicates, I decided to do both.

On the real life side, you may not have heard, but there was this pandemic...

Actually, since the start of the pandemic in 2020, Kathy and I have become grandparents for the first, second, third and fourth times, which has brought a beautiful new dimension to our lives. It's a dimension that involves a good bit of travel, because while we retired to a small college town in New Hampshire, our children and grandchildren all live in the New York, Los Angeles and Boston metropolitan areas.

A slow glide to full retirement has allowed more time for hobbies and reading. I was even able to catch up with four fire-related nonfiction books that were on my list and which I highly recommend: *Young Men and Fire* (1972), *Triangle: The Fire That Changed America* (2004), *The Big Burn* (2009), and *The Library Book* (2018). I was pleasantly surprised to see that the last one, which dealt with the Los Angeles Central Library fire of 1986, included several mentions of former Los Angeles Fire Chief Don Manning, who had been a deputy managing the LA residential sprinkler test program back when we were working to develop NFPA 13D in the late 1970s.

I've done a bit of consulting on that slow glide path, and am still active on some NFPA technical committees, although nowhere nearly as active as when I worked for NFSA. I try to keep in touch with people from the old days. A few months ago I had lunch in Patterson, New York with two former NFSA staff members: Dave Vandeyar of Winsupply, who had just returned from the successful NFSA conference in Austin, and Rich Sullivan, who retired from NFSA way back in 2001 and is still doing fine. (Red Skelton once remarked there are three ages of man: youth, middle age, and "Gee, you look good." Rich and I now find ourselves in that third category.)

But the second part of this column title, Artificial Intelligence, certainly isn't a reference to NFSA staff past or present. Future staff? Possibly, because artificial intelligence is a big topic of discussion this year, especially ChatGPT, the chatbot developed by OpenAI.

I decided to give it a test recently. I asked a single question: "Should automatic fire sprinkler systems be installed in all new buildings?" The answer I received: "The installation of automatic sprinkler systems in all new buildings is generally considered an effective safety measure and is strongly recommended by many experts and fire safety organizations."

ChatGPT continued with "Here are some points to consider:" and provided positive remarks in the areas of fire suppression capability, life safety, property protection, insurance benefits, and building code requirements. It even addressed possible concerns about false alarms and water damage, assuring me that "modern sprinkler systems are designed to minimize the occurrence of false alarms and limit water damage to the area affected by the fire. Proper maintenance and periodic inspections can help ensure their reliable operation."

So, not bad at all. There's no way of knowing where ChatGPT picked up this information, but it's very likely NFSA played a role. Keep up the good work, and perhaps our future robot overlords will keep things sprinklered. •

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*Fire is fast. Fire sprinklers are faster.*

## Tips for Risk Management Success

by Adrian Wlas

For many projects, risk management is still commonly overlooked. By applying simple and consistent risk management techniques we can easily minimize the impact of potential threats, as well as leverage potential opportunities. This not only ensures meeting the agreed scope, cost and time, but also improves the overall health and efficiency of the project operation, team members and wider stakeholders. This article comes back to the basics on the key rules of managing risk, to ensure your projects are consistently delivered with full success.

### Tip #1 - Implement a solid identification process.

The identification process will depend on the project, the organization, and the company culture involved. It is best to consider those areas when determining the most effective approach. This could be as simple as educating the team on what a risk is and asking them periodically to review the landscape for new risks, or to ensure risk identification is included in the drumbeat.

### Tip #2 - Be positive.

Risk management includes identifying and managing both negative risks and positive ones, yet most projects typically seem to focus only on the negative ones. Ensure to add clear reminders and pointers within your risk management process to consider positive risks. A deliverable being delivered well before its due date can be a good thing, but also can have unforeseen impacts on other areas or leave the project operating inefficiently. On the other hand, such a positive risk can help to balance out the impact of negative risks in other areas.

### Tip #3 - Prioritize for efficiency.

It is essential to classify risks in terms of 'probability' or how likely the risk is to occur, and the 'impact' level if the risk materializes into an issue. Doing so will allow the project manager and team members to easily see which risks are priority to focus on.

### Tip #4 - Apply correct ownership.

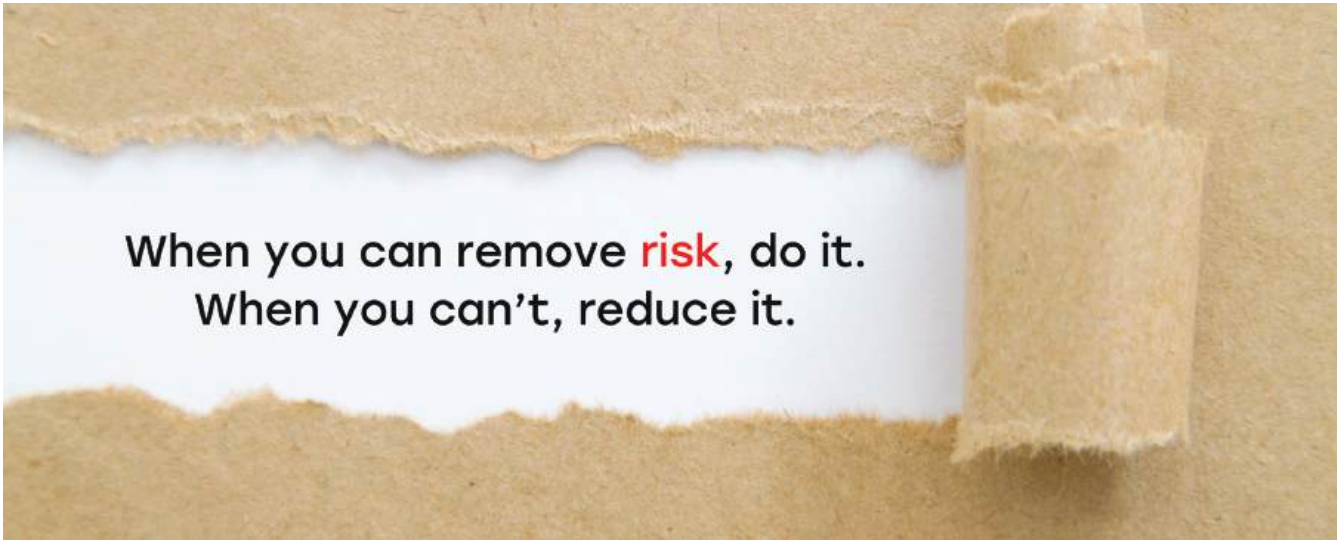
It is often common for people within the project organization to assume that the project manager owns all risks, but this is completely false. Risks can affect wide areas of the wider stakeholder group and it is typical that resources with the relevant knowledge or skills in that area are much better placed to become the owner of the risk and to carry out the appropriate mitigation actions.

### Tip #5 - Communicate and track to closure.

With correct identification, classification, and owner allocation in place, it is critical that the risks are correctly communicated. Firstly, to the owner assigned to manage the mitigation actions, and secondly to the wider stakeholder group affected so they are aware of the risk and potential impact to their respective areas. It is also then essential that the risks are regularly monitored and tracked through to closure.

By following these tips, project managers will be in a position of control in relation to the management of risks for their projects. This will ensure a sound foundation for the successful delivery of their work.

Article Source: [https://EzineArticles.com/expert/Adrian\\_Wlas/2554273](https://EzineArticles.com/expert/Adrian_Wlas/2554273)



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# Fire Protection for Lithium-Ion Battery Manufacturing Facilities

by Phil Friday, P.E., FSEPE



*From Mike Joanis: Phil Friday, P.E., FSEPE is the Director, Engineering Applications and Innovation, for Reliable Automatic Sprinkler Co. Inc. In Liberty, SC. Mr. Friday is a licensed professional fire protection engineer with a background in commercial and industrial building design and construction, fire protection equipment manufacturing, fire investigation, and firefighting.*

*Mr. Friday earned a B.S. degree in Chemistry from the University of Tennessee in 1996 and a M.S. degree in Fire Protection Engineering from the University of Maryland in 2000. Mr. Friday has held numerous positions in the field of fire protection since 1991. In the 1990's he was a firefighter with the Tri-Community Volunteer Fire Department and a wildland firefighter for the United States Forest Service. He spent the last 20 years working as a fire protection engineering consultant on projects across North America. He has been an active member of the National Fire Protection Association (NFPA) and Society of Fire Protection Engineers (SFPE) for more than 20 years. In 2018 he received the designation of 'Fellow' from the SFPE.*

This article describes the development of a unique sprinkler and protection scheme for lithium-ion batteries in racking within battery manufacturing facilities.



RELIABLE LB11 SPRINKLER

Lithium-ion batteries are everywhere; from personal electronic devices (e.g., mobile phones and laptop computers) to electric vehicles (EVs) to battery energy storage systems (BESS). If it is rechargeable, chances are it contains one or more lithium-ion bat-

teries. The manufacturing of lithium-ion batteries has largely been done outside North America; specifically in China, South Korea, Japan and other Asian countries. Recently, however, stimulated by the Inflation Reduction Act, and the push for electrification and green energy, lithium-ion battery manufacturing facilities are being built at a record pace in North America and across Europe.

*[Fun Fact: The first lithium-ion battery was invented in the 1970s by researchers at ExxonMobil.<sup>1, 2</sup>]*

Lithium-ion battery manufacturing is challenging and can be hazardous. The liquid electrolytes used in cells are highly flammable organic solvents such as ethylene carbonate and diethyl carbonate. Other constituents used to make the cells are toxic. Precision and care must be taken when assembling the cells to prevent contamination and misalignment between cathode, separator, and anode layers. Defects during cell assembly can result in thermal runaway and a fire when the cells are first charged and during formation of the solid electrolyte interphase (SEI).

Perhaps the most dangerous stages during lithium-ion cell manufacturing occur after the cells are assembled. Following assembly, cells are often placed in plastic trays (a/k/a 'formation trays') designed to accommodate many cells for handling and transport through what is known as formation, aging, and testing (FAT). During FAT, the cells are charged, conditioned, and tested. It is during FAT that small defects often manifest that can, and occasionally do, result in fires. The aging process consists of placing many 'formation trays' in tall racks. In these rooms the cells are 'aged', or conditioned, to form the SEI within the cells. Formation of the SEI is needed to allow the lithium ions to migrate efficiently back and forth between the cathode and anode during charging and discharging. The lithium-ion migration inside a cell is what allows electricity to be stored and used.

In most cases, after the cells are manufactured, they are interconnected and enclosed in a device, module, or battery pack. Battery packs range in size depending on the power and energy requirements of what they are used to power. Examples of small battery packs are those used in power tools and large packs are used to power electric vehicles.

Very few large-scale fire tests have been conducted to determine the fire protection requirements for lithium-ion cells and packs. In March 2013, FM Global published a research report titled,

*continued on page 12*

continued from page 11

‘Flammability Characterization of Li-ion Batteries in Bulk Storage’.<sup>3</sup> The testing and analysis focused on smaller format (i.e., 2.6 Ah) lithium-ion batteries packaged in cardboard cartons with different levels of plastic packaging and with states of charge up to 60%. One conclusion from the report is that lithium-ion batteries can be treated as cartoned, unexpanded Group A plastic (CUP) commodity if the protection system *precludes battery involvement* by early extinguishment of the carton packaging fire. Sprinklered large-scale tests that involved the batteries were not conducted as part of the project.

In October 2016, FM Global published a research report titled, ‘Development of Protection Recommendations for Li-ion Battery Bulk Storage: Sprinklered Fire Test’.<sup>4</sup> This report describes a large-scale sprinklered test conducted with larger format (i.e., 20 Ah) ‘polymer’ pouch cell batteries packaged in cardboard cartons with a nominal state-of-charge (SOC) of 50% and follow-up intermediate scale (i.e., water application) testing. There was limited involvement of the batteries in the large-scale test and subsequent intermediate-scale testing suggested a higher degree of battery involvement could be protected by a scheme adequate for protection of CUP commodity for storage heights up to 15 ft. under ceiling heights up to 40 ft. The report cautioned against extending the results of the testing presented beyond the specific combination of packaging, battery, and SOC tested.

In January 2023, FM Global published protection criteria for lithium-ion batteries in general storage in FM Data Sheet 8-1. The protection recommendations in Data Sheet 8-1<sup>5</sup> appear to be based on FM Global’s earlier work on cartoned batteries at relatively low states of charge.

Seeing a significant gap in fire protection criteria for lithium-ion batteries and the challenges and needs of the battery manufacturing industry, Reliable Automatic Sprinkler Co., Inc. decided to take the next step. There are several significant challenges associated with protecting automatic storage and retrieval system (ASRS) racking found in battery manufacturing facilities:

1. There is no protection criteria (based on large-scale testing) in NFPA 13 or FM Standards related to protection of exposed (uncartoned) lithium-ion batteries. This is due, in part, to the lack of large-scale testing that has been performed with lithium-ion batteries.
2. Installing pendent or upright in-rack sprinklers within the ASRS racking represents a significant challenge due to limited access and routing options within the unique rack configurations. The issues are compounded by the material handling equipment (e.g., robotics) present.

To start, Reliable developed the LB11 sprinkler. The LB11 is a K11.2 (K160) horizontal sidewall in-rack sprinkler with a discharge pattern specifically designed for protection of high challenge commodities. After passing the mechanical tests and required large-scale fire tests with Group A plastic commodities, the LB11 horizontal sidewall sprinkler was issued a Listing according to UL 199K, *Outline of Investigation for Fire Testing Specific Application Horizontal Sidewall Sprinklers for Installation in Racks Having Vertical and Horizontal Barriers*.

In January 2023, Reliable conducted its first large-scale test of lithium-ion batteries stored in plastic trays in racking protected

with the LB11 sprinkler. The racking in the battery test was fitted with horizontal and vertical barriers like what is found in room temperature and high temperature aging rooms in battery manufacturing facilities. The test layout is shown in Figures 1 and 2 below.

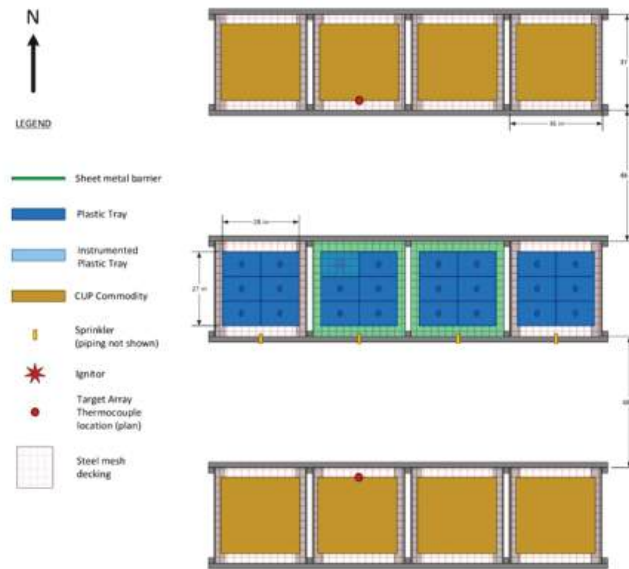


Figure 1: Test Arrangement Plan View  
[courtesy of UL Solutions]

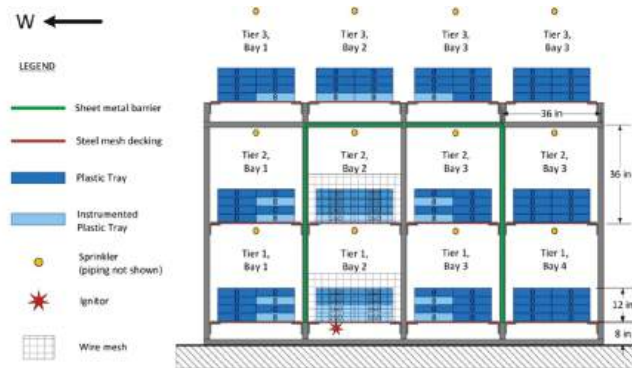


Figure 2: Main Array Elevation View (observer facing North)  
[courtesy of UL Solutions]

The commodity in these tests consisted of the following:

- Cell Configuration: 18650
- Cell Quantity: 8000
- Cell State of Charge: 100%
- Cell Cathode Chemistry: Nickel Cobalt Aluminum (NCA)
- Cell Capacity: 3500 mAh
- Plastic Trays: Non-reinforced Polypropylene Formation Trays
- Target Commodity: Cartoned Unexpanded Group A Plastic

Loaded trays are shown in Figure 3 below.



*Figure 3: Trays Loaded with Lithium-Ion Batteries*

For comparison, the number of cells included in the test is comparable to the number of cells installed in a Tesla Model S.

The test began by lighting a standard ignitor located below the stack of battery trays on the bottom level of the main array. Cell thermal runaway and cell-to-cell thermal runaway propagation occurred at 2 minutes and 6 seconds after the start of the test. The first sprinkler operated 2 minutes and 11 minutes after the start of the test. The second and last sprinkler operated at 2 minutes and 19 seconds. Within less than a minute-and-a-half of the activation of the first sprinkler, thermal runaway propagation was halted. The sprinklers were allowed to operate for 30 minutes. The test was observed for an hour after the sprinklers were shut off, and no reignition was observed. Snapshots of key moments during the test are in Figure 4 below.

Reliable has performed additional large-scale testing with the LB11 and lithium-ion batteries. The results indicate promise in protecting deeper racks with different barrier configurations.

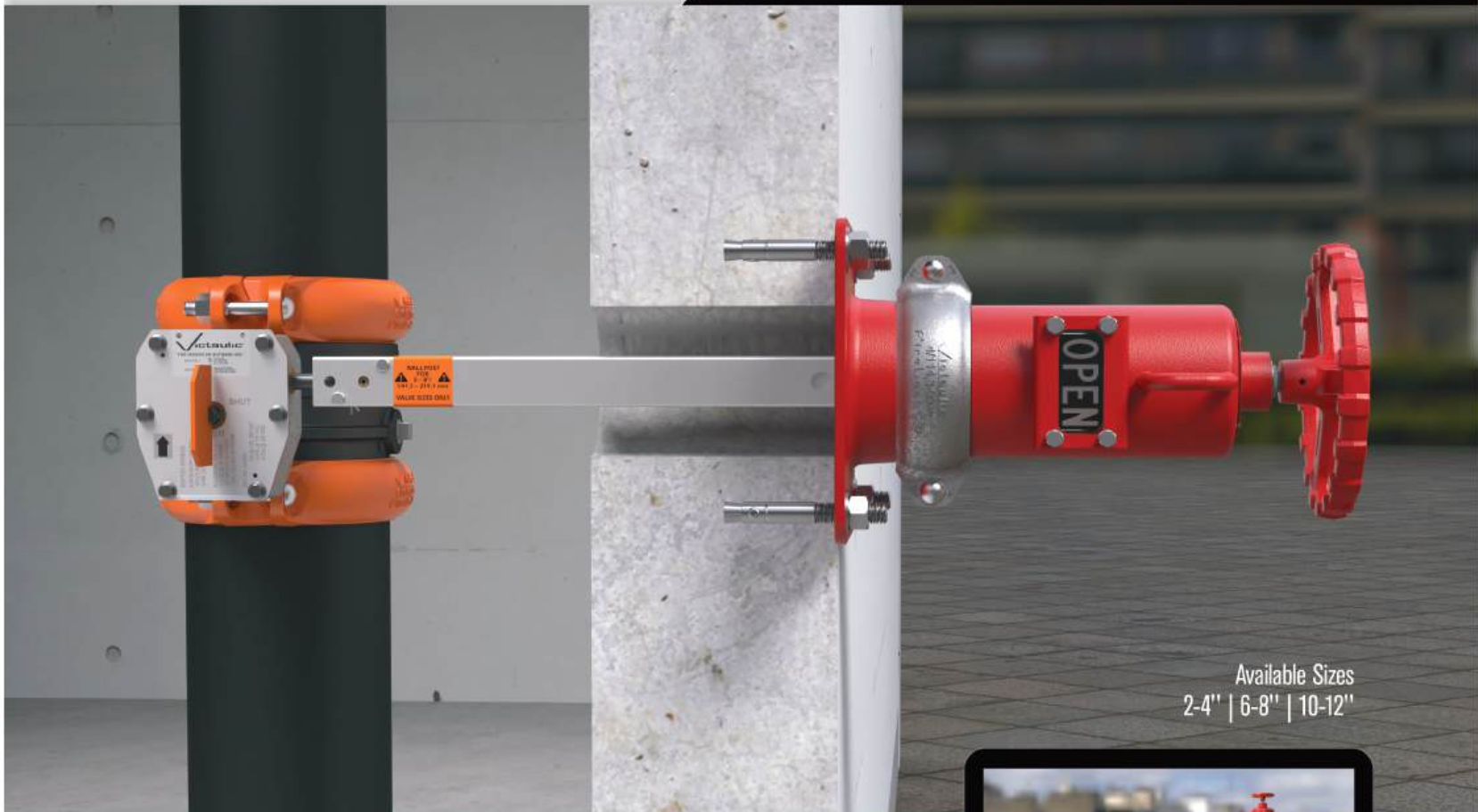
For more information on the LB11 sprinkler, please visit the Reliable Automatic Sprinkler Co., Inc., website at [www.reliablesprinkler.com/lb11](http://www.reliablesprinkler.com/lb11). To discuss protection of lithium-ion batteries in battery manufacturing facilities, storage, or anywhere else, contact the author at: [pfriday@reliablesprinkler.com](mailto:pfriday@reliablesprinkler.com).

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- <sup>5</sup> “Commodity Classification.” FM Global Property Loss Prevention Data Sheet 8-1. FM Global, April 2014, Interim Revision January 2023.
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*Figure 4. Snapshots of Key Moments in the Test.*





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# Choosing NFPA 13R– Know the building and know your role

by Chase Browning



*From Jeff Hugo: Chase Browning is this month's Member Takeover of Code Corner. Chase is the Fire Marshal for Medford, Oregon, and a former sprinkler contractor. Chase serves on NFSA's Engineering and Standards Committee and Training and Education Committee and is also a NFSA contract training instructor. The NFSA appreciates the time and heart Chase devotes to the fire sprinkler industry in both codes and standards, as well as in the classroom.*

With affordable and available housing concerns at the forefront in many communities, reducing construction costs while maintaining occupant safety is as important as ever. With protection focused primarily on life-safety, the use of NFPA 13R for fire sprinkler protection in low-rise residential occupancies comes with many potential cost-saving options. These include the allowable omission of sprinkler protection in such spaces as attics not used for occupancy or storage, combustibles concealed spaces, shafts, smaller dwelling unit closets and bathrooms and more. Many of these areas are required to be protected when using NFPA 13. Because of this reduced protection in NFPA 13R compared to NFPA 13, many design advantages provided in the *International Building Code* (IBC) for using an NFPA 13 system are not eligible when using NFPA 13R. This can confuse many stakeholders in the construction and design process, including design professionals, Authorities Having Jurisdiction (AHJ) and contractors alike. Knowing when the building design may limit or even disallow the use of NFPA 13R altogether is important. What are some of these scenarios?

## Allowable area

The IBC limits how large a building's area can be based on how it is built and how it is used. In the code, these are described as construction type and occupancy classification. In many cases, once that limit is identified, in square feet, the code allows for a potential 200% to 300% increase in this allowable area of a building when an NFPA 13 system is used. This 'area increase for sprinklers' is not allowed when a NFPA 13R system is used. Sometimes, it can be cost effective to separate two or more buildings with robust passive fire protection, such as a structurally independent fire wall, resulting in several buildings within one

larger structure. In that case, each building could potentially utilize NFPA 13R, so long as the allowable area of each building does not exceed the limits imposed by the code. See Section 506 of the *International Building Code* (2021) for more specific information.

## Building height

The NFPA 13R scope is quite clear that the standard is limited to residential occupancies "...up to and including four stories in height that are located in buildings not exceeding 60 ft..." One might think that is all they need to proceed...be careful! While the IBC and NFPA 13R still generally correlate with each other allowing up to four stories when using NFPA 13R, the 2021 and 2024 editions of the IBC made some substantial changes that affect the use of NFPA 13R. Starting in the 2021 IBC, the use of NFPA 13R is limited to four stories in height, or 30 ft or less from the floor level of the highest occupied floor to the lowest level of fire department access. With modern multifamily buildings being a bit taller than in the past, this means you might be looking at NFPA 13R only being eligible in a three-story building. Fast-forward to the 2024 edition of the IBC, and R2 occupancies (apartment buildings) had the NFPA 13R floor threshold moved up a bit to allow for a typical four-story building to be protected with NFPA 13R. The new threshold for this is 45 ft or less from the highest roof eave to the lowest level of fire department access, which is about 34 ft to the floor height in a typical building. While there are additional scenarios, such as podium applications, it is important to be aware of situations such as these recent IBC changes that might conflict with the classic application and scope of NFPA 13R. See Section 903.2.1.2 of the *International Building Code* (2021) for more specific information.

## Sleeping unit separations

The IBC requires a one-hour fire separation between sleeping units and dwelling units in many situations, and with the additional protection provided in an NFPA 13 system, the code allows this to be reduced to 30-minutes. This can be a substantial design benefit but be careful here – if a NFPA 13R system is utilized, this 30-minute reduction is not allowed, and the full one-hour fire separation is still required. This can affect both the vertical and

*continued on page 16*

continued from page 15

horizontal separations between sleeping or dwelling units. Next, we will look at another vulnerability with these same separations – how they are designed to address any concealed space they pass through. See Sections 420.2, 708.4.2 and 718 of the International Building Code (2021) for more specific information.

### Combustible concealed spaces

One of the most recognized differences between NFPA 13 and NFPA 13R is the allowable omission of protection in combustible concealed spaces when using NFPA 13R. While this can provide an easier design and installation, be careful with how the concealed spaces are designed where there are dwelling or sleeping unit separations involved. The IBC requires that if sleeping or dwelling unit separations do not pass all the way through a floor/ceiling assembly or attic, draftstopping and potentially fireblocking may be required, but we can omit those elements if we have either an NFPA 13 system, or an NFPA 13R system that includes sprinkler protection in these spaces. Based on the IBC, this would result in adding protection into these concealed spaces 'as required' for an NFPA 13 system. This would require some coordination with all parties to better ensure the intent of the codes and standards are met for protecting these spaces. See Sections 420.2, 708.4.2 and 718 of the International Building Code (2021) for more specific information.

### Occupancy separation

When a building has residential above, with non-residential below, the code requires this 'mixed-use' to be designed to address these differing hazards. While the use of NFPA 13R in a mixed-use occupancy is a complicated matter that involves many building design decisions, one thing is clear – the IBC treats NFPA 13R in much the same way as a 'non-sprinklered' building when it comes to occupancy separation. In many cases, a separated-use design

will require a 2-hour occupancy separation between a residential portion of a building and many other uses, such as a restaurant (A-2) or mercantile use (M). When an NFPA 13 is installed, this 2-hour separation can be reduced to 1-hour. No such luck if NFPA 13R is chosen, as the 2-hour separation must be maintained. See Section 508.4 of the International Building Code (2021) for more specific information.

### Summary

While there are additional vulnerabilities in the IBC when using NFPA 13R, it is important that the type of system used be carefully considered. There are many building design decisions that can affect the eligibility of using NFPA 13R. These decisions are best left to what the IBC calls the "Registered Design Professional in Responsible Charge", which is typically a licensed engineer or architect. This means that if you are an AHJ or a sprinkler contractor, you may not be the appropriate party to make decisions related to the building's use or design, whether that be the size or height of the building, how the walls and floors are built, or the amount of separation that is needed to achieve specific design objectives. Before you get "stuck" being the party that chooses NFPA 13R over 13 for a low-rise residential occupancy, be sure to pull all the appropriate parties together to avoid design and scope issues later. •

### ABOUT THE AUTHOR

*Chase Browning is the Fire Marshal for the City of Medford, Oregon. Prior to becoming a code official, he worked in the fire protection systems industry for over 25 years. He is a Principal member of several Technical Committees, including NFPA 13, 13D and 13R, and 25, is the vice chair of the IFC Interpretation Committee, as well as a member of NFSA's Engineering and Standards Committee and Code Development Team.*

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NOTES  
FROM THE

# Fire Scene



by Carter Jones

## The Cleveland School Fire of 1923

*From Vickie Pritchett: I am honored that Chief Carter Jones was willing to “takeover” From the Fire Scene for our Member Takeover issue. Chief Jones has much wisdom to share as a historian of the American Fire Service, especially in the state of South Carolina. It was an honor to be part of the 100th Anniversary of the Cleveland School Fire. What a tremendous example of how tragedy sets code changes in motion that will save future lives from being lost.*

*Carter continues to serve as a volunteer firefighter with the Clarendon County Fire Department and is in his 57th year. He was elected President of the S.C. State Firefighters’ Association in 1980, served on the S.C. State Fire Commission, served as Chairman of the Joint Council of Fire Service Associations, and served on various committees of the Association. He served on the Fire Academy Advisory Committee during construction of both Fire Academies. He was appointed to the Arson Task Force in the early 1980s, which spearheaded the change in arson laws. He remains active in pursuing the Association’s legislative agenda with the General Assembly.*

*Carter was awarded the SC Firefighter of the Year Award, Citizenship Award, and recently, the Lifetime Achievement Award given by the State Firefighters’ Association.*

*Carter is married to Mary Jo Jones who became Clarendon County’s first female firefighter. He has two sons: Jonathan (currently serving as the Fire Marshal for SC) and Craig (a Coast Guard veteran having served in the Gulf War, now an explosives canine handler in DC area). Carter’s family includes two wonderful daughters-in-law and three grandchildren.*

*Carter enjoys yard work, hunting, American Indian artifacts, and writing fire-related articles. He gathers and shares Association history, as well as general South Carolina fire service history. Thank you Chief for sharing with us in this issue!*

On May 17, 1923, 77 children and adults died in a tragic fire which consumed the Cleveland School located just off I-20 near Camden, SC. As a result of this fire and the large loss of life, public outcry at that time focused attention on the issues of fire safety in places of assembly and pressured our elected officials to enact legislation which began to shape building and fire codes not only in South Carolina, but throughout the Nation.

I recognize on May 17th of each year most South Carolinians will likely go about their day and business without any inkling of the heartbreak of that fire and the needless deaths of many people, mostly young children. Only descendants of those who died on that fateful day will observe its significance and the impact it had

on the small, rural community. Sadly, the happenings of that night have long been forgotten by most. Even some in the fire service have never heard of the Cleveland School Fire, or the reflections of that event don’t cross their minds much anymore.

So, join me as we travel back in time a century ago to examine the incident that brought change to a small community, to our State, and to the Nation. According to several articles published over time, the Cleveland School was a two-story, wooden structure that accommodated almost all grade levels of children. We are told that only three teachers were employed by the school to teach the children.

Accounts reveal that it was a long-standing custom that on the night of graduation, the students would offer their families and friends a production or play to celebrate the conclusion of the school year. Even as today, a play put on by our children and grandchildren is a big deal. It’s interesting to note that the play was to be the last held in the auditorium because the school was to be closed after the school year, and the children would be moved to other schools within the county. Ironically, the name of the performance was Topsy Turvey.

A crowd of some 300 people, mostly family and friends, poured into the school auditorium which was located on the second floor. Obviously, the number of children and patrons attending the event far exceeded the capacity of the auditorium, but there was no hint of concern about overcrowding or an effort to monitor and control the number in attendance.

Electricity had not made it to the rural areas of South Carolina, so lighting was provided by oil lamps which hung on nails near the stage area. About 9:00pm, when the last act of the play was beginning, a lamp fell from the wall spilling its flammable contents on the stage. The fire spread rapidly, and several men in the audience removed their coats in an attempt to smother the growing flames. We are told that at first the efforts to extinguish the fire seemed to be working. The patrons in the crowded audience realized what was happening and began to move towards the stairs in an orderly fashion to evacuate the building.

However, the flames from the lamp raced to the stage curtains which served as a backdrop for the production. The curtains were made of flammable material and contained no fire-retardant rating to slow the flame spread. The fire spread over all the stage area and danced across the ceiling. Conditions inside the entire building deteriorated rapidly with both heat and smoke beginning to take its toll on the people trying to exit.



Frantic parents tripped over chairs lining the walls as they attempted to reach their children gathered near the stage area, while others pushed and shoved their way toward the single, narrow stairway. When panic began to take over, some patrons opened windows and jumped the 15 or 20 feet to the ground. Accounts of the fire reveal that some family members tried in vain to reenter the building to find their loved ones, and those who successfully reentered the structure ultimately lost their lives. One narrative tells of a father reaching his daughter. He was observed through a window holding her in his arms as the fire took possession of the building. Former Governor John C. West lost his father, Sheldon West, in this tragic fire, and his mother is credited with leading several children to safety. The flagpole was even pushed towards a window for those trying to flee to use to slide to the ground.

When the stairs began to fail and the second floor collapsed into the first floor, the fears of the survivors became a reality too horrifying to truly comprehend. Sometime at the height of the fire, word spread throughout the community, and eventually an alarm of fire was transmitted primarily by word of mouth to the Camden Fire Department some six miles away.

The Camden Fire Department mustered its volunteer firemen and quickly deployed its 1920 model Seagrave having only 300 gallons of water on board. It was slow going for Camden's engine which had to travel the nearly six miles to the carnage awaiting them. Obviously, when the fire department arrived on the scene, nothing could be done to help those trapped in the remains of the old school.

### The Aftermath

We are told that identifying the bodies was extremely difficult. For those bodies which could be identified, relatives claimed their remains and took them away for private burials. Sadly, 67 unidentified bodies remained, and it was determined that since they "died together, they would be buried together." A mile away from the Cleveland School is the Beulah Methodist Church and Cemetery. It was decided to excavate a mass grave (12 feet by 40

feet) in the Beulah Cemetery to serve as the final resting place for those who died in the fire and who could not be positively identified. Accounts indicate that somewhere between 3,000 – 5,000 people attended the funeral.

When the embers had finally cooled, reaction throughout the State was one of shock, great sadness, and an alarm of concern for safety. A cry of change stretched across the State, especially within the Fire Service and the State's General Assembly. Charleston's Fire Chief and President of the newly established State Firemen's Association, Louis Behrens, fueled that cry of change by personally traveling the State visiting fire departments to seek their support for new laws to increase fire safety especially in places of assembly. Under his leadership, Chief Behrens inspired the fire service to contact their legislators to introduce laws that would address the weak building and fire codes in existence at that time. In addition, national fire service organizations took up the call for strengthening building and fire codes.

As a result of that initiative, State and National codes were changed and adopted to require adequate exits and exterior fire escapes, alarm systems, fire retardant materials and contents, capacity guidelines, doors to open outwardly, improved lighting and heating installations, portable fire extinguishers, mandated exit drills and training for staff personnel. Up until the last decade a law remained which requires every school district principal in the state to provide verification that fire drills have been conducted in his/her school throughout the year.

Over time a monument was erected at the site of the fire, as well as at the Beulah Cemetery. Bronze plaques lists the names of those children and adults who died in the tragic fire.

### In Conclusion

As we pause to remember the events of May 17, 1923, and consider those who died in the Cleveland School Fire, may we continue to pursue the orderly pursuit of enacting more modern building and fire codes to keep pace with improved technologies, i.e., residential sprinklers. I wish to encourage all of our readers to take a field trip to visit the site of this disaster, the final resting place of those victims at the Beulah Cemetery, and include a visit to the Camden Fire Department to see the restored Seagrave pumper that responded to the alarm of fire on that fateful night.

I wish to acknowledge those who contributed to this article: Fire Chief John Bowers, Anna Inbody, and Craig Swain, whose research is extensive and so interesting.

RESEARCHED & WRITTEN BY:

Carter H. Jones  
Special Projects Coordinator  
S. C. State Firefighters' Association

*"As a result of that initiative, State and National codes were changed and adopted to require adequate exits and exterior fire escapes, alarm systems, fire retardant materials and contents, capacity guidelines, doors to open outwardly, improved lighting and heating installations, portable fire extinguishers, mandated exit drills and training for staff personnel."*

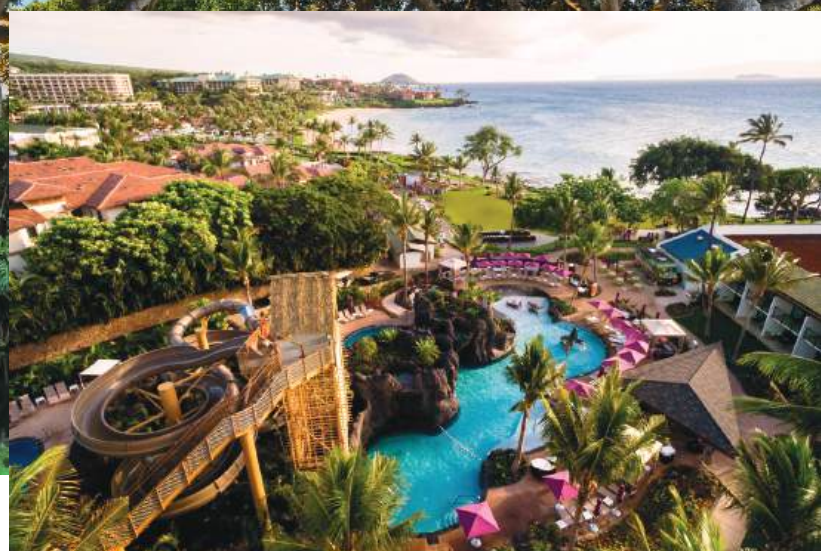
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# FIRE SPRINKLERS IN ACTION

Editor's note: The following saves were submitted by our members. If you have a save you'd like to see featured, use this QR code or email me at [genadio@nfsa.org](mailto:genadio@nfsa.org). Please include photos if available!

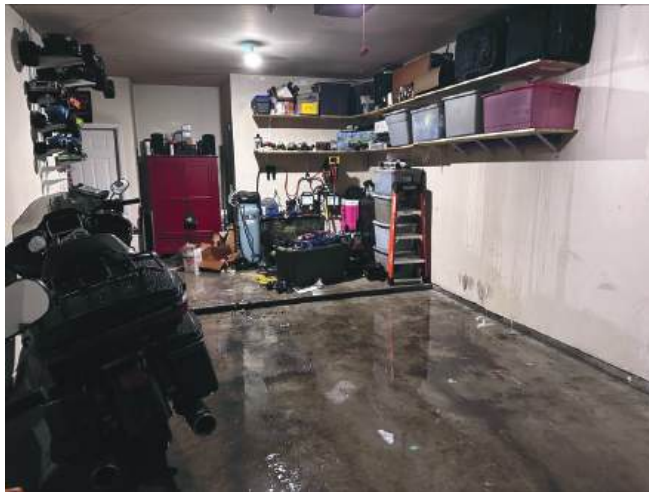


## Colorado

### Single Sprinkler Saves Apartment Building

*Thanks go to Longmont, CO Fire Marshal Michele Goldman, Asst Chief John Weaver and Asst Fire Marshal Marc Sampson for their collaborative effort to get this sprinkler save to us!*

We had another fire stop due to sprinkler activation. Microwave decided to catch on fire while operating. Party called 911 and evacuated. Enroute, we were notified of sprinkler activation in the building. U/A Engine 5 made entry and found the fire extinguished by single sprinkler. Although there was some smoke and heat damage, the fire did not really extend from the microwave. The sprinkler prevented what could have been a much larger fire by our arrival.



### Single Sprinkler Extinguishes Battery Fire

*Thanks to Westminster Fire Marshal Jim Gagliano for sending us this sprinkler save.*

On July 2nd, the Westminster, CO Fire Department responded to a fire alarm with water flow at a multi-family building. Upon arrival they discovered that the fire had started in the garage where a battery for a remote-control car was being charged/discharged. The battery and charger were on a wooden dresser. A single sprinkler activated, extinguishing the fire prior to fire department arrival.

Westminster was the first jurisdiction in Colorado to require sprinklers in all residential occupancies when it adopted the 2012 International Residential Code without amendments to the sprinkler provisions.

## Illinois

### Single Sprinkler Extinguishes Apartment Fire

*Thanks to Champaign, IL Deputy Fire Marshal Jeremy Mitchell for sending in this sprinkler save.*

On July 8th at 5:20pm the Champaign Fire Department responded to a reported kitchen fire at an apartment complex. The fire was caused by an air fryer and was extinguished by an adjacent fire sprinkler. No injuries, no one displaced from the apartment building.



## Massachusetts

### High-Rise Sprinkler Save

*Thanks to Cambridge MA Fire Department for posting this great save on their Facebook page, tagging us, and highlighting the fastestwater difference during Home Fire Sprinkler Week.*

On May 15th, a fire in an apartment of a 22-story residential building in East Cambridge, MA was quickly contained to one room by one operating sprinkler. Fire companies quickly arrived



## Fire Sprinklers in Action

continued from page 22

to overhaul, ventilate, check for extension & treat 1 minor burn injury.

### Missouri

#### High School Saved by Sprinklers

*Thanks to NFSA Member Ellie Boyer of Boyer Fire Protection for sending us the sprinkler save!*



On May 24th, Boyer Fire Protection responded to an emergency call at East St. Louis High School. The fire started on the exterior side of the building around 10:45 pm the previous night.

Flames broke through glass and entered the classroom. The fire sprinklers kept the fire from entering the school and contained it to the outside wall. It took approximately 20 minutes for the fire department to put out the fire on the exterior of the building. Graduation took place on schedule the following evening thanks to fire sprinklers!

### New Jersey

#### Sprinkler System Knocks Down Fire at Hotel

*Thanks to East Rutherford, NJ Fire Marshal Ryan Rege for reporting this sprinkler save!*



On July 2, the East Rutherford Fire Department was dispatched for a fire alarm activation at a hotel.

Upon arrival, crews discovered an unattended pan of oil was cooking on an electric stove on the 6th floor. The heated oil caused a flash fire which activated the sprinkler in the kitchen area. Very minor damage to the room due to the quick knock from the sprinkler system.

continued on page 24

## Fire Sprinklers in Action

Texas

### Restaurant Fire in morning - Open for Dinner that evening

*Thanks to Anna, TX Fire Prevention Lieutenant Galen Davis for sending us this sprinkler save!*



On the morning of June 8th, Anna fire crews responded to a commercial structure fire at a local restaurant. Crews discovered that a fire had occurred in the kitchen and although the hood did not activate, a single fire sprinkler extinguished the fire.

The restaurant is a local favorite, so continuity of business was significant to the community. The restaurant was able to reopen and serve the dinner crowd the same day- thanks to the fire sprinkler system.

### Single Sprinkler Controls Dryer Fire

*Thanks to Farmers Branch Fire Marshal Timothy Dedear for sending us this sprinkler save.*



The Farmers Branch Fire Department was dispatched for a structure fire in a third-floor apartment.

Upon arrival, a sprinkler water flow and fire alarm system was activated. Engine crews advanced to the third floor and met the apartment maintenance crew stating they used portable fire extinguishers to extinguish a fire in the dryer drum.

Crews entered the apartment to discover a single fire sprinkler activation in the laundry closet. The dryer drum still had burning material inside. The sprinkler system kept the fire confined to the dryer.

Crews extinguished the fire, removed the burned bedding material from the dryer and shut down the sprinkler system. Fire damage was confined to the dryer.

### Fire Sprinkler System Quells Apartment Cooking Fire

*Thanks to District Chief Lance Wilson of the Cypress Creek, TX Fire Department for sending in this sprinkler save!*



On June 11th, crews were dispatched to an apartment fire. Upon arrival, they found a cooking fire that had been contained to the kitchen due to activation of the fire sprinkler system. They conducted overhaul and ventilation. No injuries reported. The fast application of water from the sprinkler system saved this apartment and many others.



## Single Sprinkler Controls Fire in Hotel Gym

*Thanks to American Fire Protection Group's Joe Tortorici for alerting us to this sprinkler save!*

On June 14th, the Trophy Club, TX Fire Department was dispatched to a structure fire at a local four-story hotel. Crews arrived and located a small fire and heavy smoke in the unoccupied fitness room. A single fire sprinkler directly above the burning equipment activated and kept the fire from growing until fire crews could fully extinguish the fire. The fire did not extend beyond the initial piece of equipment, and in a short amount of time, the room was cleared of smoke and the hotel occupants were able to reenter the building. Fire crews replaced the sprinkler head, and the fire sprinkler system was recharged so that it could continue to protect the building and occupants. There were no injuries from this fire.

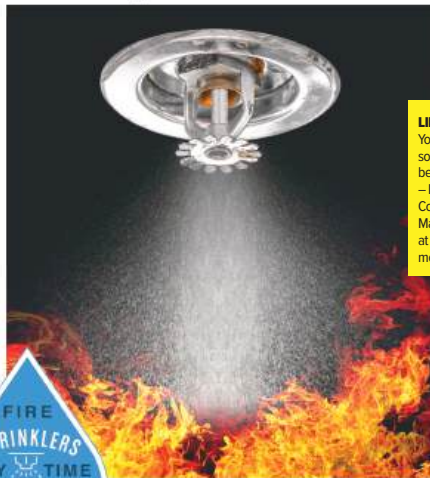
This fire was the perfect example of how a properly installed and maintained fire sprinkler system can quickly detect a fire in an unoccupied room, set off the fire alarm system to notify the building occupants, and send signals through the fire alarm system to quickly dispatch fire crews to the scene. The situation could have been much worse without a working fire sprinkler system. •



## Fire happens fast...thankfully, so does this.



U.S. fire departments respond to an average of one home fire every 86 seconds.  
On average, seven people per day die in U.S. home fires where fire sprinklers are not present.  
Fire sprinklers can control and may even extinguish a fire in less time than it would take the fire department to arrive on the scene.  
In a home with sprinklers, the average property loss per fire is cut by about 70% compared to fires where sprinklers are not present.  
Residential fire sprinkler systems cut the risk of dying in a fire by about 80%.



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# Fire Flow Testing and Marking of Hydrants

## *Understanding the recommended practices of NFPA 291 Hydrant Capacity Test*

by Patrick Spillane, *Subject Matter Expert, The Hose Monster Company*



*From Vince Powers: I chose Patrick Spillane from Hose Monster to write my Article in the National Fire sprinkler Magazine because the company is an innovative and leading company in the fire protection industry providing several different tools to assist in completing all flow tests accurately and safely. They changed the industry when they introduced the original hose monster in the early 90's and continue to lead the market with new products and training.*

Fire Hydrants are an essential part of the fire protection system in any community. They provide firefighters with a reliable source of water when the alarm arises. Identifying the capacity of these hydrants and marking them in accordance with NFPA 291 is a useful practice to assist in preplanning firefighting operations as well as utilizing the hydrant to full capacity during a live fire event.

NFPA 291 *Recommended Practice for Water Flow Testing and Marking of Hydrants* was last updated in 2022. As a recommended practice, the word “Shall”, which indicates a mandatory action or requirement, is not prevalent in the document. (It is found in Chapter 2 – but only regarding referenced publications) NFPA 291 presents collaborative “best practices” of our industry’s fire protection thought leaders. Its origins date back to the mid-1930s when the NFPA Committee on Public Water Supplies for Private Fire Protection presented its thoughts on the importance of fire water supply from hydrants. The recommended practice held stable until the 1977 edition, which included the addition of a chapter on flow testing of hydrants.

The 2022 Edition of 291, Chapter 4.1 lists the purposes of Fire hydrant flow tests to be “conducted to determine the available water supply for fire protection purposes, the flow what would be available from a fire hydrant for firefighting purposes, or the status of the water supply distribution system...” Chapter 4 goes on to recommend how to perform both a Hydrant Capacity Test (Single Hydrant Flow Test) and a Main Capacity Test (Multi-Hydrant Flow Tests). Both tests utilize the same three data points: Static Pressure, Residual Pressure and Flow Rate Discharge. In both Tests, the hydrants being tested is where the Static and Residual pressure will be documented. However, where you flow the water from is the difference. In a Main Capacity test, the water flow

takes place at the hydrant(s) neighboring the residual test hydrant, however in a Hydrant Capacity test, the water flow discharge is measured at the same residual test hydrant.

Identifying the purpose of your flow test will help guide you to determine which testing procedure to follow.

If you are looking to evaluate the water mains capacity for the purposes of Fire Sprinkler Design, performing a Main Capacity Test utilizing multiple hydrants is the way to go. Performing a multi hydrant test allows the engineer to determine exactly how much water is available at a point in the water main that will eventually feed into their project’s site.

However, when you are looking to mark and classify the fire hydrant for firefighting purposes, it is recommended to perform a Hydrant Capacity Test. Since most hydrants will be fed from a smaller pipe size than the main that feeds it, the amount of water capable of flowing through that hydrant is normally far less than the main’s capacity. Correctly identifying the single hydrant capacity is crucial to the Fire Engineer’s fire attack plan. A proficient Fire Engineer will quickly gather how many Hand Lines and Deck Gun operations their engine will be able to deploy during firefighting efforts based on the marking and classification of the hydrant.



*continued on page 28*

continued from page 27

### Calculating Results

Once the three data points are collected from either test, we then must perform a theoretical calculation to predict the available flow at a desired residual pressure, which the industry standard is at 20 psi\*.

$$Q_R = Q_F \times \frac{h_r^{0.54}}{h_f^{0.54}}$$

where:

$Q_R$  = flow predicted at desired residual pressure

$Q_F$  = total flow measured during test

$h_r$  = Static pressure minus desired residual pressure  
(Static psi - 20 psi\*)

$h_f$  = pressure drop measured during test (Static psi – Residual psi)

Don't worry if you're rusty on your algebra skills, you can find a free fire hydrant calculator online. By entering in your three data points, the Fire Hydrant Flow Test Calculator will solve the equation for you.

During either test, to obtain satisfactory test results of the theoretical calculation, a 10% drop from static to residual pressure will be needed. To obtain the 10% drop, it may be necessary to flow from multiple discharge outlets on a single hydrant test, or more than one flow hydrant on a multi hydrant test.



### Classification of Hydrants

Once the calculation has been completed, you are now ready to classify the hydrants based on its capacity. The results of these tests should be marked on the hydrants so that firefighters can quickly identify the hydrant capacity when they are responding to a fire. Chapter 5.2 will provide recommendations for your jurisdiction to follow. Some key recommendation to consider:

- Mark the hydrants constantly throughout the district
- Use reflecting type paint for easy identification at night.
- Mark the top or caps of the hydrant and provide a stencil of the rating in black on the hydrant top.

Table 5.1 Classification and Marking of Hydrants			
Hydrant Classification	Color Scheme	Hydrant Capacity (gpm)	Hydrant Capacity (L/min)
AA	Light blue	>1500	>5700
A	Green	1000–1499	380–5699
B	Orange	500–999	1900–3799
C	Red	<500	<1900

(Display Table 5.1

### Classification and marking of Hydrants) Conclusion

Performing and evaluating fire hydrants and fire mains are an essential part of Fire Protection. In the past, a main capacity test utilizing multiple hydrants was the gold standard for evaluating fire hydrants, however we have learned a single Hydrant Capacity test provides valuable and accurate data that will greatly enhance the responding Fire Departments tactical planning. There will be occasions that performing both a Hydrant Capacity and Main Capacity test so that you can provide the engineers and fire fighters with that vital data they need.

### About the Author:

**Patrick Spillane**

Subject Matter Expert at The Hose Monster Company

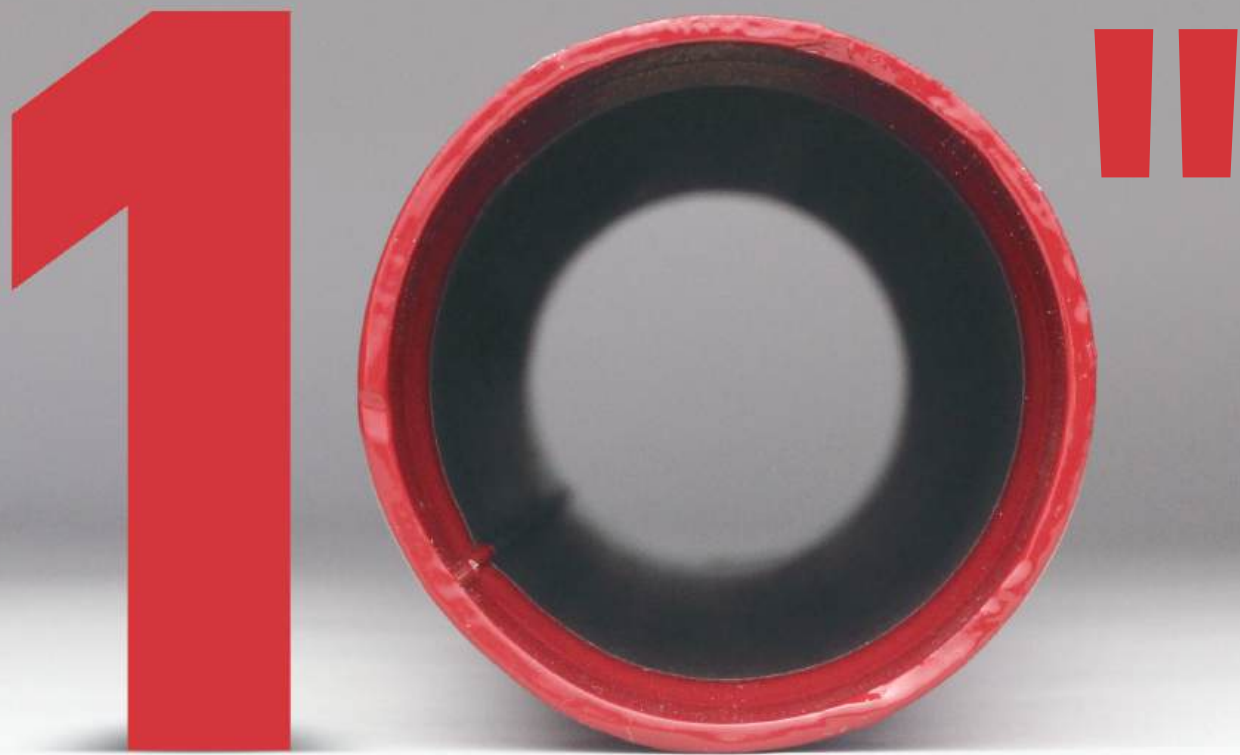
25 Years in the Fire Protection Service

Bachelors Degree from Western Illinois University

NFPA Certified in WBITM

NICET III – Inspection and Testing of Water Based System

Former career Fire Fighter/Paramedic (IL Fire Fighter 3 Certified)



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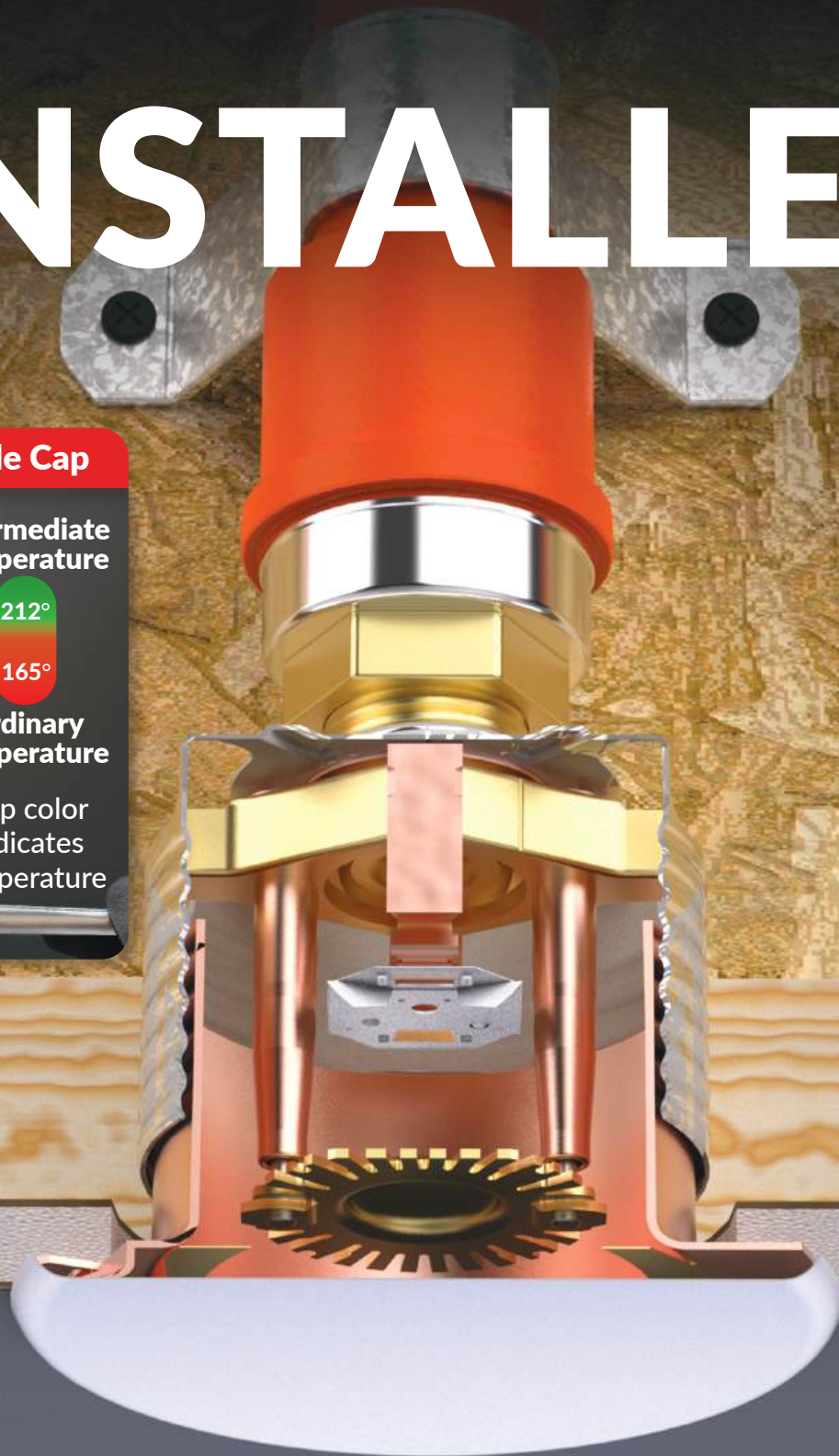
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Temperature

Cap color  
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temperature



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# A New Member's Experience

by Christen Pietraz, *Underwood Fire*



Like many other businesses, Underwood Fire has turned to new forms of digital communication in recent years. We currently utilize LinkedIn, Facebook, and various other social media platforms to promote our training in The Lab, showcase our technical services, and commemorate professional milestones, (maybe you've seen how festive our team can be during holiday spirit week). One benefit of this visibility is the reciprocation of organizations with similar practices. It's full circle: we learn, we share, we connect.

Many will agree, this communication practice throughout the years, especially during the pandemic, became daunting. As a business, we wanted more connection to our niche community and were excited when the local NFSA chapter reached out to visit our new facility in 2021. At that point, we had been affiliated with the organization and knew enough members to know we were in good company. It wasn't until that first meeting that we gained a deeper understanding of the association and that the meaning went beyond business. We share the critical mission of protecting lives and assets.

Becoming a member of the NFSA was the best decision we've made in business. As I write this, we're coming up on our first anniversary as a member. In this brief period, we've deeply felt the benefits of being members. The NFSA has become a meaningful ally for Underwood Fire by strengthening and creating relationships, expanding knowledge, and supporting commerce. It has even influenced some of the direction we've taken as a brand.

From the start, President Shane Ray and the Great Lakes Field Service Coordinator Ron Ritchey have been there for us, literally. To officiate our membership in July of 2022, they visited us and



toured The Lab, observed our abilities firsthand by witnessing the shop work, and shared their vision for NFSA and where Underwood Fire fits into the puzzle. Anyone who has heard President Ray speak on the importance of fire sprinklers knows his passion is contagious. That day was no different for us. Partnered with Ritchey's enthusiasm, it set a precedent for a supportive relationship not only as a member but in business as well. We knew then that joining the NFSA would be the start of something great.

Our initial experiences with the NFSA were local events held by the Michigan Chapter. From seeing familiar faces at Top Golf to handshake introductions over charcuterie, we experienced a wide range of beneficial networking experiences. We were able to support the Great Lakes Burn Camp through Michigan's golf outing. Just this week, we sent an employee for a growth opportunity to a human resources-themed lunch and learn that was well-attended and received. This scope of offerings encouraged us to become more involved.

Before the NFSA Expo & Annual Seminar, we had never attended this type of event as an exhibitor. We knew that this would be the space to make our debut and felt the warm reception immediately. Throughout the week, we learned many things about the sprinkler industry from contractor perspectives to industry needs and cheered on the astounding caliber of competition vying for Top Tech. We were honored to be in the presence of people who received prestigious accolades like our friend Rob Vincent, from Shambaugh & Son, who was recognized with the President's Award.

In Austin, we were finally able to introduce The Lab, our training



facility, with a group we would be privileged to host. For days we stood in front of our simulated classroom with a picture of the fire pump room. Between the atmosphere and the conversation about our relationship with fire pumps, it almost felt like home. We spoke to hundreds of people about our services and learned what other organizations are doing to promote fire safety. Those connections have turned into sales, press coverage, think tanks, and service relationships within just a few months. The entire seminar and expo were just as prodigious as our experience, from the well-thought-out planning to outstanding content and well-executed event that we look forward to doing again.

That week became a turning point for our organization, on top of the aforementioned reasons, we were reminded how important fire safety is. We've come to understand how passionate the NFSA is, heavily supporting the reform of residential laws and NFPA codes and influencing change that benefits everyone. The drive is motivated by organizations like Common Voices, who we had the pleasure of being "next booth neighbors" during the expo. They strive for a Fire Safe America through advocacy manifested from personal tragedies. Sharing their harrowing stories, partnered with idealism and determination, is awe-inspiring. Working alongside an organization, that advocates for such a powerful mission, should make every member proud to be in fire safety.

This opportunity for growth and expanding knowledge has been the most beneficial attribute of being a new member. If you have met us at the expo, an event, or visited our social media you would know Underwood Fire has a passion for fire pumps. The reason we created The Lab was to share our experience with fire pump systems to create a greater understanding of their functions and capabilities. We feel this leads to more positive outcomes, thus limiting the loss of life and assets. If we can impact the fire safety community, even a fraction of how the NFSA has impacted us this year, then we were right – *this is just the start of something great!*

# Blue Collar and Proud of It

by Jim Stoddard, *President, ARGCO*



Our country was built on capitalism, which works well. If we the people see honesty in the system, then the salt and earth in us will become motivated. We have proven in America over the past 250 years what teamwork, loyalty, and optimism can accomplish.

America grew out of the dreams of immigrants who heard of a place where opportunities are for everyone who wants a better life. Everyone is included in the dream and all you must do is pull up your bootstraps and roll up your sleeves and do something. A smile would be nice, and the attitude of unlimited possibilities will follow. Our brilliant founding fathers have written into our constitution our rights as citizens, and laws to protect us if we are upstanding in our character.

The salt of the earth keeps driving the economy, building and growing America into what we choose. In the USA, freedom leads the way to prosperity, and a lack of freedom drives us into a silent majority of disgruntled critics.

You do not learn humility, but you are definitely taught it. We need our leaders to recognize hardworking Americans and to applaud hard work and not frivolous unproductive and controversial activities.

We need a blue-collar movement in this country now, and there is nothing more American than hard work. So let us keep the dream alive.

Blue Collar pride comes with the knowledge that we can work ourselves free again if we need. WE can build it, we can fix it, and we will share the prosperity of our hard work. We can defend ourselves and we enjoy our free time going out and being with one another.

We are in the construction trades, and like firefighters and police, we need to see ourselves as servants to the whole of society and be ready to take on whatever needs to be done to stay number one in the world. If you want to be accepted by others, learn a skill, and provide a service. If you want to feel good about yourself, do good things and watch what happens. The fire sprinkler industry is hiring. Jobs are well paid, and we are serious about our lives. There is no time for dress up games.

The piping trades are filled with the sons and daughters of those who came over on the Mayflower and others who entered through Ellis Island. Our ancestors came and built a better life, and we need to continue their legacy, or we are the generation that dropped the ball of the greatest experiment. I do not want to live with that on my conscience. We need more avenues to stay connected and be a voice of sanity in our country.

“*The Dope and Tape Show*” (a podcast for fire protection professionals and trades people) is bringing sprinkler fitters together for the purpose of nothing more than exchanging ideas. How to be better at what we do is the goal. I want to be a part of it, I want those children who are growing up in elementary schools to see what we are doing and to know we are not going to throw up our hands and give in to some flighty new ideas put forth by people whom I frankly do not understand.

It is important to join your industry organizations and participate in local chapter events. It is also important to be community-minded and get back and give back to those organizations that in the past took care of the sick and the homeless. •



# The Truth Burns

*Common Voices advocates set the stage for why a focus on the impact of fire is worth a glance. Pause and think about our instinct to survive and ask yourself why do we become complacent when it comes to fire safety? The myth “it’ll never happen to me”... sometimes, the truth burns.*

In 2022, Common Voices launched a bold plan to capture the stories of all Common Voices advocates. The dream/plan is to have these stories provide the inspiration for a streaming service to create a Docu-series and/or a documentary called “The Truth Burns.” We believe that these stories are courageous, and that they can make a difference and prevent others from suffering similar tragedies. We hope you will join us in our efforts, share the links via all social media platforms, join our coalition with a donation. Working together, we can save lives, and we thank you for believing in our cause, supporting our advocates, and joining our movement for a Fire Safe America.

Our landing page for *The Truth Burns* can be found here:

<https://fireadvocates.org/the-truth-burns/>

 CommonVoices1

 CommonVoices1

**fireadvocates.org**

*Fire Sprinklers Save Lives*



*An Advocate's Coalition Determined to Create a Fire Safe America*

*Courageous stories that can make a difference and prevent others from suffering similar tragedies...*



<https://fireadvocates.networkforgood.com/projects/125513-main-giving-page>



# Virtual Reality Reveals the Speed of Fire and the Power of Fire Sprinklers

Exposure to home fires puts responders at risk from fire, collapse and health hazards. Each new home built without home fire sprinklers makes the community less safe for all.

With HFSC's new virtual reality video you can help decision makers, stakeholders and others in your community understand what you know all too well: today's home fires are fast and deadly.

With user-controlled 360-degree full-room views, they'll experience actual house fires in virtual reality, feeling as if they are in the rooms. They'll see flashover in the unsprinklered room in

real time and watch a sprinkler automatically control the blaze in another.

This new resource lets you share your knowledge with convincing evidence of the need to protect new housing stock with sprinklers. It can be watched with 3D glasses/headset for an immersive experience or in 2D on HFSC's website.

Installed home fire sprinklers support Community Risk Reduction. Our new virtual reality video is an effective resource to help you achieve your CRR goals.

Visit [HomeFireSprinkler.org/VR](https://HomeFireSprinkler.org/VR).



Scan this QR code with your smartphone to learn more.



# The Move That Changed My Life

by Darrell Garner, *Dacar Fire Protection, Inc.*

**DACAR**  
Fire Protection, Inc.



In 2014 my wife and I made the decision to move from middle Georgia to the Florida panhandle. I had been employed with a Georgia fire sprinkler contractor since 1991 so leaving a place I was comfortable with was not an easy decision to make. I had met with Dave Cargill the owner of Dacar Fire protection, Inc. and it just felt like taking on a new role in Florida was the right thing for me to do.

Dave had begun his career as a pipe fitter and was employed by several of the largest fire sprinkler companies in the State. He decided he wanted to start his own company and picked Tallahassee as the place he would do it. He was successful at his new venture, growing the company from just himself and a helper to having a new commercial office and fabrication shop built with many employees on the payroll.

When Dave passed away in 2019 after a short battle with cancer, I found myself in the position to become the president of the company. Dave had made it clear that it was his desire Dacar continued to grow and thrive even though he was gone.

Not expecting to suddenly be a company owner and the fact that everything happened so quickly, I'll admit I felt overwhelmed at times. One of my first hurdles was to obtain a Contractor's License from the state of Florida. As all sprinkler contractors in Florida know, continuing education is required to maintain their licenses. Dave had always been a staunch supporter of the FFSA, and he earned his continuing education credit through FFSA seminars. He was also a big fan of the NFSA Expert of the Day program and encouraged our designers and me to utilize this valuable tool. Anytime an FFSA area interest meeting was scheduled in Tallahassee Dave was in attendance and expected all his designers and project managers to attend as well. We had maintained our membership with the FFSA, so it was an obvious choice when it was time to earn continuing education credit.

While at the FFSA Daytona Beach Shore's Conference, I heard two passionate speakers asking for members to get involved with the Association. There were seats on the Board of Directors that needed to be filled as well as other service opportunities. They also spoke of the great leadership that the FFSA has had for many years and how much we all stood to lose if it were not continued with the same devotion. That night I decided I would get involved and volunteered for the Board.

No one was more surprised than me when I was elected. I'm honored and humbled that members thought I would be a good candidate. I've not been a board member for very long, but I've learned a few things quickly. The first is that all these events, such as area interest meetings, continuing education seminars, golf tournaments etc., take a lot of work to plan and execute. They take time and devotion from FFSA employees and volunteers. You can see this in the way these events seem to run flawlessly. Personally, I had never considered this before. I just arrived and expected things to be perfect. I'd like to thank the staff and volunteers who make these events run so well. Another thing I've learned is how important the lobbying effort is to our industry. Decisions are being made that greatly affect us by politicians that might not know that fire sprinklers save lives and protect property. If we don't get that message to them, they are probably not going to hear it. Getting that message to them requires an experienced lobbyist who knows how to gain access to the right people. If you would like to donate to this cause, or if you have a relationship with a legislator please let NFSA Regional Manager Lorrell Bush know.

In closing I feel like I must mention the effort that the FFSA puts in to educating and assuring we have an open line of communication with our AHJs. Having worked in other states I can assure you that Florida is fortunate to have AHJs that make decisions based on code not personal preference. The decision by the FFSA to allow AHJs no-cost access to area interest meetings and seminars only strengthens our AHJ's knowledge and decision making.

If you are in the fire protection industry and not an FFSA member, please consider joining our cause. If you are a member and would like to make a difference, please consider volunteering at any level. Thank you.

**Darrell Garner**  
*Dacar Fire Protection, Inc.*

# Raising the Standard for Certification and Customer Service for ITM Technicians



By Holly Garvey, *Director of Certifications, Academy Certification Exams*

The Academy Certification Exams (ACE) program is designed to validate knowledge and experience in fire sprinkler system inspection, testing, and maintenance. The need for a comprehensive and reliable testing and certification program, coupled with exceptional customer service, prompted the development of ACE in 2008.

In a relatively short period after its development, the ACE program gained approval from the State of Florida for its test and validation process as a NICET equivalent. Since then, ACE has been accepted by Georgia and is accepted by NASA contractors in Florida, highlighting its recognition and acceptance by influential entities in the field of fire protection. ACE has successfully certified thousands of fire sprinkler inspection and testing personnel, earning approval from various stakeholders in the fire protection industry. Test-takers, company owners, authorities having jurisdiction, and others have all recognized the value and credibility of ACE certification.

ACE is excited for the upcoming 2023 roll out of the Level III certification for Inspection, Testing, and Maintenance. This certification will be one more opportunity for inspection technicians to invest in their career and show proficiency in their abilities. Additionally, a Level III certification will open the door for ACE to be accepted in several additional states throughout the US. Let us know if you are interested in having ACE establish a strong presence in your region. Your feedback will help us strategize our efforts and tailor our outreach to meet your needs and requirements.

Additionally, ACE is actively seeking the involvement of NFPA 25 subject matter experts and experienced inspection technicians in the development of test questions and testing of new formats. This is a fantastic opportunity to make a positive impact on our industry, as well as contribute to the improvement of fire protection standards.



We invite you to apply to join our esteemed question development committee and become an integral part of shaping the future of fire protection certifications. Your knowledge, insights, and expertise will help us create a certification that truly reflects the needs of the industry while upholding the highest standards of safety and competence.

To express your interest in joining the question development committee or to let us know about your desire to have ACE in your state, please reach out to us at [info@academyexams.com](mailto:info@academyexams.com).

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*“We invite you to apply to join our esteemed question development committee and become an integral part of shaping the future of fire protection certifications.”*



# Introducing The Use of Vapor Corrosion Inhibitors in Dry & Pre-Action Fire Sprinkler Systems



By Jim Doherty, *General Air Products Director of Marketing*

*Vapor Pipe Shield® provides a time-tested corrosion mitigation technology to be used by the Fire Protection Industry.*

As our Industry continues to grapple with our corrosion problems, it can feel as though there are three certainties in life: death, taxes, and corrosion. We've heard about and utilized the pipe coatings of years past, as well as anti-freeze, Dry Air Generators, and Nitrogen Generators. All these technologies have brought knowledge and awareness of the significant threat corrosion brings to the longevity and operation of fire sprinkler systems. Next up – bringing with it decades proven use in industrial applications – is Vapor phase Corrosion Inhibitor, or VpCI®.

## What is Vapor Phase Corrosion Inhibitor?

It's no stranger to any of us. Many might not have realized, but VpCI® likely has, at some point, protected many of the metal products we use daily. Metallic car parts – gears, carburetors, engine components, and driveshafts, are all packaged and shipped using Vapor Phase Corrosion Inhibitor to protect them from rusting during transit and extend their shelf life. High-tension steel bridge cables are protected from breakdown and stress due to corrosion by Vapor Phase Corrosion Inhibitors. Oil Pipelines protected from internal corrosion; infused concrete mixes poured to protect the rebar of skyscrapers – Vapor Phase Corrosion Inhibitor has protected them all and many more for decades.



## How Do We Get VpCI® Inside the Sprinkler System?

That's where General Air Products comes in. Vapor Pipe Shield® is a patent-pending Vapor Phase Corrosion Inhibitor delivery system. Using the airflow provided by the Dry or Pre-Action System's supervisory air compressor, VpCI® molecules are carried into the piping network. This is a FULLY MECHANICAL process. There are no additional moving parts, and most importantly, no electrical to be hooked up.



Made up of a Vapor Phase Corrosion Inhibitor source canister and filters, installation of Vapor Pipe Shield is as simple as installing an Air Maintenance Device. Secure the product to the wall using the pre-mounted brackets, and pipe directly in line after the compressor and before the AMD, if one is required.

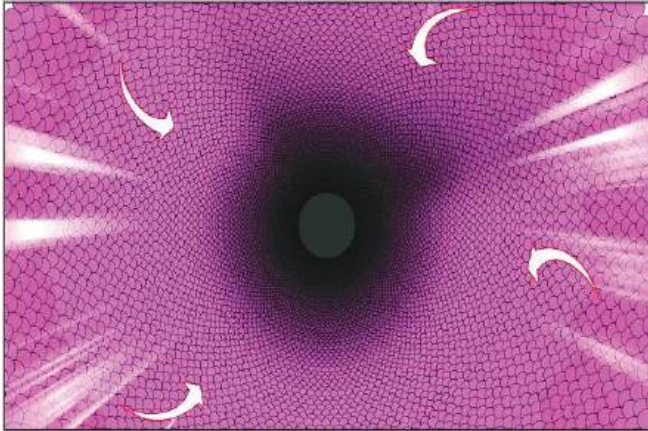


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### How Does it Work Once It's in There?

It works on a molecular level - as in, 8x smaller than a single red blood cell. Individual VpCI® molecules adsorb to the metal surface of the sprinkler system piping network, and once there, they repel corrosive elements from contacting the pipe directly, stopping corrosion in its tracks.

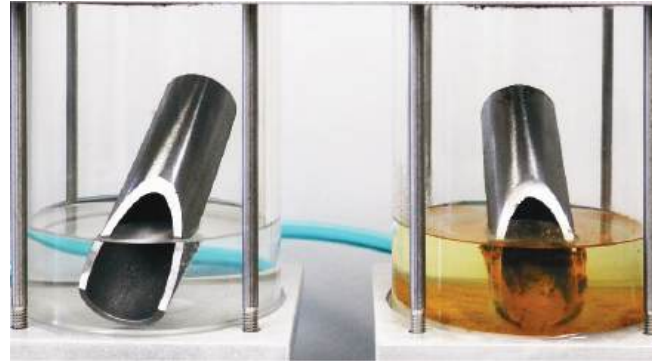


It's important to note that these VpCI® molecules are physically incapable of bonding to each other - they can ONLY attach to any available metal surface. This creates a one-molecule thick barrier on the pipe: an invisible, protective Shield.

VpCI® molecules also penetrate any standing water in the piping network and protect the pipe beneath it. That's a game changer. With Vapor Phase Corrosion Inhibitor, it doesn't matter how much oxygen or moisture is in the sprinkler system - oxygen and moisture are rendered irrelevant.

### How Effective is It?

Vapor Phase Corrosion Inhibitor is an active means of corrosion mitigation, meaning the source you're introducing will actively stop corrosion from occurring. In the fire sprinkler industry today, the most referenced form of corrosion control, Nitrogen Generators, control corrosion by displacing corrosion-causing oxygen from the system. Nitrogen itself doesn't prevent corrosion - it's the forced displacement of oxygen that does. That's a tough job, and yet an example of a passive means of corrosion mitigation. Vapor Phase Corrosion Inhibitor molecules go straight to the surface that needs protecting: the pipe.



Vapor Corrosion Inhibitor is a cutting-edge alternative for corrosion mitigation Dry & Pre-Action Fire Sprinkler Systems. Not only is it super effective in that regard, but its delivery system is also a completely mechanical & simple installation that will come in at a fraction of the price of more conventional corrosion mitigation technology in the Fire Protection Industry.

Vapor Pipe Shield is available NOW & units ship NEXT DAY. To learn more about Vapor Corrosion Inhibitors and Vapor Pipe Shield, visit us online at [generalairproducts.com](http://generalairproducts.com), or sign up for one of our many webinars at [training.generalairproducts.com](http://training.generalairproducts.com)!•



## 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.

### Illustrations

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 NFSM.

### Payment

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

NFSM EDITOR:

Joanne Genadio

[genadio@nfsa.org](mailto:genadio@nfsa.org), 443.863.4399

# If Only the Home Had Fire Sprinklers

By Miaishia McKenzie



**O**n March 5th, 2010, Baltimore Fire Department investigators found three people dead in a West Baltimore rowhouse on Woodbrook Ave. The fire was caused by overheated extension cords, resulting in \$50,000 in damages and \$20,000 in lost contents. However, much more was lost: my sister Lakeisha Harrison, 19, and two others, Alfred Goodman Sr., 61, and Alfred Goodman Jr., 41. If only the home had fire sprinklers.

My sister Lakeisha possessed a zest for life that radiated like the sun's warm embrace. Tragedy struck our family and our community without remorse on that day, shrouding us in darkness and despair. Panic gripped our hearts as the fire licked voraciously at my sister's final resting place, her screams resonating across the neighborhood.

Outside, the community gathered, their faces marred by the reflection of sorrow, while firefighters located directly across the street battled valiantly against nature's wrath. But no help could reach within the confines of the hostile fire.

Days turned into nights, nights into days, where the sun hid behind a veil of clouded grief. My spirit, broken and heart shattered, I treaded through each day with an emptiness that echoed in the hollows of my soul. The lingering scent of smoke from sitting in front of a fire pit, once comforting, now haunted my every breath, a constant reminder of my sister's absence.

Yet, deep within the darkness, the embers of memories refused to be extinguished. They illuminated a path, urging me forward. I knew I had to find solace not in the ashes but in the love that still enveloped me for my sister.

Months and years passed, and I decided to rebuild, turning my pain into power—a phoenix rising from the ashes. With each accomplishment, I whispered secrets of unwavering devotion.

My newfound knowledge of fire safety has emerged over the years as a testament to a bond beyond comprehension, a love that transcended realms.

As time lent its gentle touch, I discovered a steadfast resolve. Each family member and I carry Lakeisha's spirit within our hearts, sharing her kindness, dreams, and laughter with her cherished memories. She may have left this earth, but her essence thrives in every act of kindness, every dream realized, and every moment cherished.

I hope that by sharing my sister's story, others will forever be touched and can see how grief could mold resilience, molding the shattered pieces of my heart into something stronger. We begin to seek comfort in the strength that transcends loss—the power to heal.

Thirteen years later, the house that once burned down is now being rebuilt. Hopefully, its walls will rejoice as whispers of love fill every room. And though my sister will forever be missed, I have found peace knowing that Lakeisha's spirit continues to live within me, forever intertwined with the embers of memories that will never fade. I wonder if the house is still lacking an essential safety feature. Fire sprinklers.

Without fire sprinklers the fire spread rapidly, taking control of the house back then with each passing second. The lack of this crucial safety measure hindered the firefighter's ability to control the fire and limit the damage it caused. I never want this to happen to another family again. If only the house had fire sprinklers, it could have changed the tides of saving their lives.

## A career in the industry

Since I began working at NFSA in 2016, I have sought to service the Association with pride due to its stellar reputation. For more than a century, NFSA has advocated for a stronger industry and a safer world by promoting fire sprinklers in model codes and legislation. Our mission is straightforward: *"To protect lives and property from fire through widespread acceptance of the fire sprinkler concept."* Working for this association, embarking on an educational voyage, and experiencing the anguish of loss have aided me in educating others.

I sought employment with the NFSA to gain as much knowledge

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as possible to be able to bring awareness regarding fire safety to urban communities. According to the U.S. Fire Administration (USFA), which works for a fire-safe America, there were 32 firefighter fatalities and 1,150 residential fire fatalities to date in 2023. Keep in mind that the risk of death or injury from fire differs across populations. Some populations are more susceptible to fire-related loss of life and property. The USFA publishes topical reports exploring U.S. fire causes, highlighting pertinent data, and recommending resources for further research.

With NFSA's Headquarters being based out of Maryland, it is essential to note that the risk of death found by the USFA reflects that by region in 2019, individuals living in the Midwest and southern states have the most significant relative risk of dying by fire when compared to populations living in other regions of the United States. Also noting that by race, African Americans and

American Indians/Alaska Natives were at a greater relative risk of dying in a fire than the general population (FEMA). Installing fire sprinkler systems is a highly effective way to prevent loss of life and property damage in a fire. Sprinkler systems can quickly detect and extinguish fires, reducing the damage that can occur.

One of the main arguments in favor of fire sprinklers is the potential for saving lives. According to the National Fire Protection Association (NFPA), homes with fire sprinklers see a reduction in fatalities by 80% and property damage by 70%. Therefore, fire sprinklers in pre-existing dwellings could be a life-saving investment.

We are not just speaking of the cost in dollars and cents. The emotional cost families pay after a loss of life and property due to a house fire can be devastating and long-lasting. These effects can vary depending on the circumstances surrounding the loss, individual coping mechanisms, and the levels of support that individuals receive. The following are some typical emotional costs that families may experience.

#### Trauma

The most immediate and profound cost of loss is grief. It can manifest in numerous ways, including emotional shock, denial, anger, sadness, and despair. Family members may feel guilty for being unable to save their loved ones or for things they might have done differently that may have prevented the fire. The traumatic experience of the fire and the loss of their loved ones can create anxiety, depression, post-traumatic stress disorder and substance abuse problems. The burden of rebuilding, finding new accommodation, or replacing lost items can cause financial stress that may exacerbate emotional distress.

Additionally, family dynamics may change due to the loss, and relationships may be strained as family members grieve differently and at different paces. Family members and friends may not know how to support the grieving family, which can lead to isolation and loneliness. The traumatic experience of a house fire can also cause a fear of recurrence. It is essential to seek support and talk to a counselor or therapist to cope with such emotional effects. It is also crucial for families to look out for the surviving members and help them through their trauma.

The loss of life due to fire in urban neighborhoods is a tragedy that can happen anywhere, at any time. My family has experienced the effects of loss of life due to a fire. Fire outbreaks in urban communities are often more hazardous than in other areas, as buildings are tightly packed together, and people often live in multi-story structures, making quick evacuation difficult. If only the house had fire sprinklers, would my sister still be here? In Memory of Lakeisha T. Harrison. •

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# FFSA and the Florida Builders of America

By Glen Painter. *MJ Wood Area Manager*



For the third year in a row, the Florida Fire Sprinkler Association has volunteered our time and resources for the Florida Builders of America (FBA) Leadership Summit. This summit brings high school aged kids from all over the state of Florida to Haines City in Central Florida to learn all about careers in building trades. Like most construction trades, Florida fire sprinkler contractors see the increasing need for new young talent to enter the work force. Not only does the FFSA contribute financially to the Leadership Summit, but we also volunteer our time to teach these teenagers about our industry.

The event took place this year from April 20-23, and had approximately 90 students attending. Each year after the students arrive and get checked in, we begin the Summit with a side-by-side burn courtesy of Wayne Automatic Fire Sprinklers, and with the help of Polk County Fire and Rescue. This is always a big attention grabber and a great way to pique the interest of the students prior

to beginning their scheduled classes. The students are placed in groups for the Summit and each group has two volunteer team leaders. Some are past students, some are teachers, and others just volunteer tradespeople. The groups attend classes prepared by the different trades such as electrical, framing, roofing, landscaping, pool screen enclosures and fire sprinklers.

The fire sprinkler team this year consisted of myself, Justin Guy (Wayne Automatic Fire Sprinklers), Jeremy Dean (International Fire Protection), Sanjay Oudi (Wayne Automatic Fire Sprinklers) and Vince Powers (National Fire Sprinkler Association). As the groups of students came to our classroom, we spent some time talking about what each of us does in the trade, how we started and all the opportunities for growth in our industry. We had the students use virtual reality headsets courtesy of Home Fire Sprinkler Coalition to sit in a living room fire without fire sprinklers and one with fire sprinklers to see the how quickly a



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home without sprinklers can be destroyed and how little time people have to escape a home fire. We explained the different components in fire sprinkler systems and how they are assembled. The students then had the chance to put a sprinkler together courtesy of Viking Sprinklers. We explained how sprinklers activate and some of the myths about fire sprinklers while putting the sprinklers together and it was a nice souvenir for them to take home with them.

The group then went outside to the NFSA training trailer for hands-on training with Vince Powers. Vince explained and showed students how the different sprinkler systems work and how they interact with fire alarm devices and detection. To top off each of the classes a student from each group had the chance to start a fire and watch a wet sprinkler activate and extinguish the fire. Another student drained the system and changed out the sprinkler. These classes were repeated for ten different student groups throughout the Leadership Summit.

On Friday evening, the different trades each provided a competitive challenge that could be scored. Each team took part in the challenge head-to-head with another team and were given a score. At the end of all the challenges the team with the most points was the winner. This year we had a small riser drawn up in AutoCAD with piping, fittings, and some fire sprinklers in different positions. The materials and fabrication were donated by Reliable Sprinkler, Wayne Automatic and Milton J. Wood Fire Protection. The teams followed the plans and put the risers together using cordless impact guns and various hand tools. They were judged on accuracy and since we had a couple of teams with a perfect score, we had to award points for speed as well. The feedback that we received from our classes and our competition was very positive and the smiles on their faces were priceless.

We have already begun planning for the 2024 FBA Leadership Summit and look forward to sharing our passion for fire sprinklers with many new faces next year. A special thanks to Lorrell Bush (*Florida Fire Sprinkler Association*), our volunteers, and the entire Florida Fire Sprinkler Association. •



# 125 Years of Innovation, Quality, and Service Potter Electric Signal Company



Throughout 2023, Potter is proudly celebrating its 125th anniversary of exceptional service in the life safety industry. This remarkable achievement is a testament to Potter's unwavering commitment to excellence and innovation, which has been ingrained in the company's culture since its inception.

From its humble beginnings as a small family business in 1898, Potter has emerged as a global leader in the design, manufacturing, and distribution of life safety solutions. Through its dedication to quality, reliability, and customer satisfaction, Potter has earned a reputation as a trusted partner worldwide.



Throughout its illustrious history, Potter has always been at the forefront of innovation, constantly striving to identify and leverage new opportunities to protect, secure, and monitor the people and property that matter most. With a wide range of cutting-edge products and services, including fire alarm systems, fire sprinkler monitoring, and corrosion solutions, Potter has helped countless customers achieve peace of mind and ensure the safety of their most valuable assets.

Here's a look at some of the key points in Potter's historic timeline which has made the company what it is today:

## Where it all began

In 1898 Charles E. Potter began developing products that sent electronically coded signals to a central monitoring station. This allowed fire and police officials to be instantly dispatched to any fire or security emergency. In a time when human initiative was the most valuable industrial commodity, Charles Potter was able to combine state-of-the-art equipment with dedicated men to provide St. Louis with the best night watchmen service in the

metropolitan area. His pioneering ingenuity helped lead Potter to be a world renowned manufacturer of life safety equipment.

## Potter's central monitoring station 1920

Using custom designed products for specific applications and monitoring their status with the latest in telecommunications equipment, Potter was able to provide his subscribers with the finest alarm and night watchman's service in the greater St. Louis metropolitan area.



## Continued Progress 1948

From the beginning of the company's founding until Mr. Potter's death in 1948, Potter Electric Signal Co. broadened its line of products and services and became a pioneer in the fire and security industries.



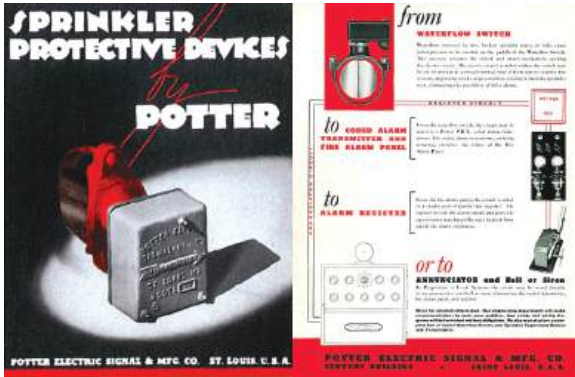
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### Advent of Potter Sprinkler Monitoring 1970

While the central station business continued to grow, Potter also expanded its line of products. It developed a complete line of sprinkler supervisory devices, security switches for intrusion protection, central station receiving equipment, vault and safe protection systems and fire control panels.

As manufacturing output increased, it became necessary for the company to expand. In 1970, land was acquired, and a new facility was built in west St. Louis County.



### A focus on life safety 1982

In 1982, Potter sold its central station and downtown location to Wells Fargo Alarm Services. It was now free to concentrate solely on the manufacture and distribution of sprinkler monitoring products and security peripherals.



### A corrosive threat 1990s

With aging fire sprinkler systems, the issue of corrosion became more prominent. By the nineties, Potter began investing in solutions to combat this new threat. With a full suite of testing, treatment, and monitoring solutions, Potter continues to protect the systems that protect you.



### New business opportunities 2004-2008

During the aughts, Potter broke into several new markets with strategic acquisitions. In 2004, Potter acquired Amseco which brought with it a full portfolio of security peripherals. In 2008, Potter acquired Elmdene International to further its global reach and bolster its fire and security markets. Also in 2008, investments were made to bring an experienced engineering team to focus on all new fire alarm systems designed and manufactured by Potter.



### Further market reach 2015-2021

Looking to increase its systems portfolio and be able to bring the same innovation, quality, and service to new markets, Potter acquired several new businesses starting in the mid-2010s. In 2015, EVAX, CPG, and Harrington were acquired together to bolster Potter's fire alarm system business. Looking to break into the emergency wireless communications market, TowerIQ was acquired in 2020. Most recently, Valcom—with its wide array of mass notification solutions—was added to compliment Potter's commitment to life safety.



Potter is currently at the forefront of fire and life safety systems, offering state-of-the-art technology for efficient threat detection and response. Our integration of sensors, alarms, and monitoring systems provides real-time data and quick responses to potential dangers. Looking ahead, we are ready to leverage technological advancements to make our systems even more interconnected and intelligent. Through our unwavering commitment to innovation and our customers, Potter remains dedicated to shaping the future of fire and life safety, prioritizing the safeguarding of lives and properties.

*Thank you to NFSA and the entire industry for your ongoing support of Potter over the last 125 years. We look forward to an exciting future together!•*



# Embers of Heritage, Flames of Innovation



By Ryan Wychopen, *Project Manager, Fire Systems of Texas, LLC*

In the early hours of June 22, 2023, the fire sprinkler industry bid farewell to one of its founding figures, leaving behind an indelible legacy that continues to shape the landscape of the industry across Texas. **Hal Wychopen Sr.**, born on March 10, 1943, at Hermann Hospital in Houston, Texas, was a man renowned for his many accomplishments. However, what truly set him apart, as we discovered while speaking with numerous individuals in recent weeks, was his unwavering integrity. Countless stories were shared, recounting instances where Hal chose the path less traveled, resisting temptations to compromise, helping those in need, and embodying the principles that guide us in today's complex world.

## The Man of Faith and Character:

Hal Wychopen Sr. was not only a man of profound faith, but also possessed a strong moral compass that guided his decision-making. His unwavering trust in God served as an anchor, propelling him to establish Firecheck in the 1970s, a business that flourished under his leadership across Texas and beyond. Today, Hal's remarkable



legacy not only lives on through the third generation of fire protection specialists in his family, but also through the hundreds of individuals who have built their livelihoods in the fire protection business, all inspired by his exceptional leadership, expertise, and unwavering passion for the industry.

## A Legacy Forged in Principles:

At the heart of Hal Wychopen Sr.'s legacy were the principles he held dear: integrity, honesty, determination, problem-solving, and a genuine love for others. Over the past few weeks, as I heard stories previously unknown to me, these principles became even more evident. Hal's dedication to the fire protection industry stemmed from his genuine desire to safeguard and assist others. He understood that cutting corners compromised effectiveness, and although he was imperfect as you and me, one characteristic stood out among the rest: his unwavering commitment to doing the right thing, regardless of the consequences, the pressures he faced, or the ease of taking the wrong path.

## Continuing the Legacy at Fire Systems of Texas:

Today, as proud stewards of Hal Wychopen Sr.'s legacy, Fire Systems of Texas strives to carry forward his values. Our core principles revolve around honesty, hard work, dedication, sincerity, and a self-starting attitude. We allow codes and regulations to steer our decision-making process, always embracing the challenge of making the right choices, even when they are difficult. Rather than becoming fixated on obstacles, we prioritize finding innovative solutions that uphold the highest standards of fire protection.

Hal Wychopen Sr. was an extraordinary individual who left an indelible mark on the fire sprinkler industry. His unwavering integrity, passion for helping others, and commitment to doing the right thing continue to inspire and guide us today. At Fire Systems of Texas, we are proud to honor his legacy by upholding his core values, and we remain steadfast in our dedication to providing top-quality fire protection solutions. As we move forward, we embrace the challenges and strive to find innovative approaches that ensure the safety and well-being of our communities, just as Hal envisioned. •



## Mastering Social Media: How to Boost Your Fire Protection Business's Brand Visibility with Content

*From Joanne Genadio:*

*When choosing someone to take over my column, I always look for a company that has their "stuff" together when it comes to social media. ServiceTrade fits that bill! After reading Lauren's article, you'll see why. If you are not following them on Twitter, Facebook and LinkedIn and you'd like to "see how it's done" do yourself a favor and scroll through their posts. Here's hoping you get as much out of this article as I did! Enjoy!*

When I was a student at Clemson in 2004, we were one of the first student bodies invited to Facebook. I joined Instagram over ten years ago in 2012 at the urging of my Gen Z siblings and my first post was of a lionfish at the Charleston, SC aquarium. I found my job at ServiceTrade in 2016 through a LinkedIn message. I was a TikTok early adopter, at least in my age group yet again, at the urging of my Gen Z siblings. I've had almost 20 years of experience with various social media platforms, so I'd like to think I know a thing or two about content, whether it's creating it or consuming it.

In seven years of connecting with fire protection contractors, I've observed that some effectively use social media but too many are missing out on brand visibility and community engagement because they haven't figured out how to create valuable content.

So, let's talk about how you can create content that makes social media a powerful tool for your fire protection business.

### Prepare To Leverage Organic and Strategic Content

Content is anything and everything that is shared online. It can include text updates, photos, infographics, videos, podcasts, blogs, links, you name it. As we explore the opportunities of social media for fire protection contractors, we'll talk about both organic and strategic content.

**Organic content** is spontaneous, unplanned, and can pop up at any time from anyone.

**Strategic content** is the material that you plan, create, and share with a strategy in mind.

Organic content just happens. It's impossible to predict the who, what, when, where, why, and how of organic content since it's not under your control. Let's explore one contractor's unexpected viral moment to learn how to harness the power of organic content.

### An Example of Organic Content: A Viral TikTok Mention

In October 2020, during the height of the pandemic in St. Louis, MO, unbeknownst to the folks at Haberberger Mechanical, a

TikTok user by the name of Kat was inspired to share the unique name she found on the door of one of their work vans.

Her 10-second video contains audio references to the Hamilton soundtrack, as well as a reference to the virally viewed YouTube video entitled "Dog of Wisdom." With the power of these three things combined, the Haberberger Mechanical name would soon be exposed to an audience previously unimagined by the contractor. The TikTok video earned 94,500 likes, 649 comments, 18,000 shares, and 1.2 million views. You can watch it at [servicetrade.com/viral-tiktok](https://servicetrade.com/viral-tiktok).

How do you think Haberberger Mechanical capitalized on all their viral fame? They didn't really.

I had the opportunity to chat with Mr. Haberberger about the video. He mentioned that the most notable effect was that nearly everyone he had ever known sent him the video. For weeks he received texts, emails, and calls about it.

I asked him if he noticed an uptick in service calls or web traffic and he admitted that the team didn't notice any increase, but they didn't actively measure it, either. They did, however, create a TikTok profile to comment on the video, and even schooled us on the correct pronunciation: "It's pretty easy. Ha-ber-ber-ger."

Just imagine if the folks at Haberberger had capitalized on this viral event by having a contest that challenged people to share a video of them saying the Haberberger name correctly with five winners chosen at random to win a prize. They could turn all of those people saying the Haberberger name into a brand video.

A contest like that could increase their web traffic, grow their email list, boost their social media followers, generate targeted leads, and increase the content at their disposal. When organic content happens, turn it into strategic content and use it to your advantage.

To plan your strategic content, you need to first think about WHY? Why should you invest time in creating content? What are



*One contractor became the subject of an entertaining TikTok video that earned 1.2 million views.*

you hoping to gain? Who are you talking to and what is important to communicate to them?

The answers to these questions will be highly personal to you and the goals of your business. Some common themes I've seen in my research may give you some ideas on where to start. The most common themes I've noticed are to reach new audiences, reflect company culture, recruit new talent, raise awareness for the trade, and reinforce the company's brand.

### An Example of Strategic Content: Transforming ITM Work into Engaging Social Media Content

As a contractor, you have a head start on creating engaging content by using photos and videos captured during inspection, testing, and maintenance work. Share before-and-after pictures of repairs, highlight your specialized expertise, and showcase potential disruptions or disasters that were avoided by your work. Encourage your team to document their work thoroughly and incentivize them to capture captivating visuals.

But ensure that you only post things that paint your company and its customers in a positive light. You wouldn't want to make your clients feel uncomfortable by tagging them in pictures of dirty facilities or broken equipment.

Once you've launched your little content farm, it's time to start curating your posts. Be creative! Be authentic! Try new things! See what works and what doesn't and adjust accordingly. Don't forget to tag the company, people, and hashtags that are relevant to your post.

### Create Your Profiles and Choose Your Platforms

Once you've figured out your why, what, and how you want to communicate to your audience, it's time to work your plan and start posting.

Start by creating and promoting your company-branded profiles. Stake your claim on that prime social media real estate! Even if you aren't sharing content today, you'll need these profiles later, so create them now.

I recommend prioritizing the applications that facilitate storytelling where you expect to find your target market. Facebook and Twitter are obvious choices since they've been around for a long time. But don't ignore new platforms that are quickly gaining traction, like Threads.

**LinkedIn** is by far the best platform for engaging with businesses, business professionals, and professional organizations. LinkedIn has a multi-generational user base, so it might not be a bad idea to focus some of your hiring efforts here.

**Instagram** is an excellent app for sharing photos. Generally speaking, contractors are great at taking photos of what's happening on the job site, whether it's a deficiency, before and after pics, or the progress of a project. Instagram is a great place to make this content visible to a broader audience.

**TikTok** and **YouTube** are the giants in the video-sharing space. YouTube videos are usually long-form. TikTok is better for short videos. Since TikTok is a newer app with fewer of your competitors, the chances of your content being organically consumed are higher.

Over half of all TikTok users in the US are younger than 30. Post content here that will appeal to a younger audience to help with your recruiting amidst the growing problem of techs retiring from the trades.



*Northwest Fire Systems shares entertaining strategic content that's educational.*

### Simplify The Work With Social Media Management Applications

Are you thinking that this sounds like a lot of work? There are some great tools out there to help. At ServiceTrade, we rely on Hootsuite. Hootsuite is a platform that helps manage organic and strategic content. It has a free option you can use to schedule posting strategic content across social channels. It will also alert you to organic mentions of your company so you can join those conversations and uncover opportunities to create new strategic content.

### Measure Your Social Media Success

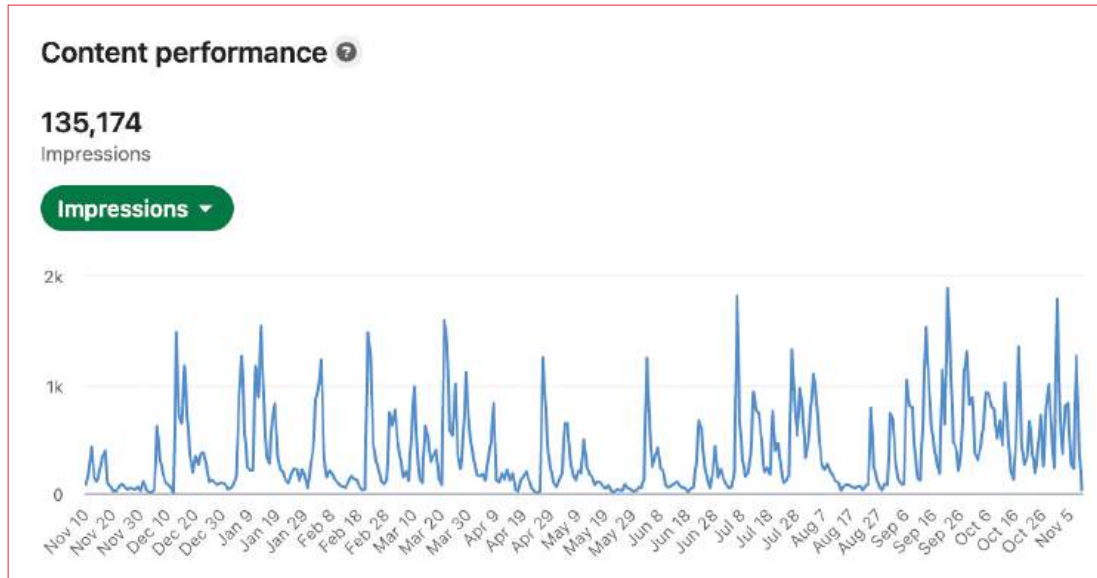
Finally, let's talk about how to measure your success. Most platforms make engagement stats highly visible for every post. LinkedIn also makes it easy to examine the content performance on your personal and business pages.

Of all my LinkedIn posts from 2022, a view of the California Coastline took the prize for the top engagement. Probably because I asked my audience to guess where I landed.

Try different things to reach a broad audience. You never know what will land, so experiment and learn from what works and what doesn't.

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*LinkedIn records engagement with your content over time so you can learn what works best.*

It might seem like a challenge to know where to start. But the good news is that there are lots of savvy contractors that can inspire you. Connect with them. Follow them. Check out what they do well and put your own spin on it. I can't wait to see what you come up with! •

*Lauren Rice is a Senior Sales Director at ServiceTrade who has spent seven years with the company building online and offline relationships with fire and life safety contractors. Connect with Lauren for more advice and examples of how fire protection contractors are successfully creating engaging social media content.*





## Congratulations and Thank You to John Kauffman III

by *Cindy Giedraitis, NFSA South Central Regional Manager*

### A Texas Fire Sprinkler Legend!

Long time board member **John Kauffman** from Area 8 (Arkansas, Texas, Oklahoma, Louisiana) has retired from his company and the National NFSA (National Fire Sprinkler Association) Board of Directors. John served as the NFSA Area Director for Area 8 for 11 + Years. John has worked in the Fire Sprinkler Industry for over 47 years.

On June 7, 2023, John recommended to the NFSA Contractors Council that the Board appoint his son - **Conor Kauffman** to finish his term of office. Conor Kauffman was duly appointed by the Contractors Council to fill out the remainder of his father's term. NFSA membership includes many family-owned companies in the fire sprinkler industry. Family Fire Sprinkler Companies make our industry stronger and that is our vision: a stronger industry and a safer world.

John shared his Fire Sprinkler Career highlights and history with NFSA in the Future Leadership's Committee – Legends & Leaders Video Series. Find John's Interview on NFSA's YouTube Channel and highlights here:

#### JOHN'S FIRE SPRINKLER HISTORY:

**Detroit Independent Sprinkler** – 1976, With NFSA Hall of Fame Member, Paul Kauffman

**Southwest Fire Protection** – With NFSA Hall of Fame Member, Rex Miller

**Continental Sprinkler**

**Wormall Fire Systems** (*Later bought out by Tyco*)

**Western States**

**Kauffman Company** – Incorporated December 2006 – When Conor Kauffman decide to make his career in the Fire Sprinkler Industry; John and Conor *“decided to hang out their own shingle”*



#### JOHN KAUFFMAN-LEGENDS AND LEADERS INTERVIEW LESSONS LEARNED FROM JOHN'S FAVORITE HEROES

From **Abraham Lincoln** “Good things come to those who wait but only the things that are left by those who hustle and that's really what it's about having some integrity staying focused on the task at hand and trying to solve problems.”

From **Winston Churchill** – John tried to mirror his career after Winston Churchill, in that he was committed and persistent to single mindedly pursue his fire sprinkler career.

From **Ronald Reagan** - Ronald Reagan had a couple of goals when he became president: one goal was to end communism and he was wanted to remind the American people how good and strong and that our United States of America is.

From **John Kauffman** - Do that one thing well. Do not get distracted.

- Find someone who really listens to you.
- Don't worry about mistakes. Just bring it to everyone's attention right away so it can be fixed.
- Try to marry the work ethic of the Boomer Generation with the Next Generations who embrace hands on operations and technology. •



## NFSA Summer Outreach Success

During the summer months and debuting in media markets from New York to California and everywhere in between, NFSA proudly presented two new informational videos focusing on summer themes.

Our **Summer Fire Safety Tips** campaign included campfire safety, barbeque safety and home fire safety with an emphasis on residential sprinklers.

We are equally proud of our **Fourth of July Safety** video, which emphasized the difference fire sprinklers make in residential fires and dispels the common myth that they all “go off” when a fire starts.

*Go to NFSA's YouTube channel to view both videos.*

We received great coverage on both initiatives. Check out these important outreach videos and be sure to share on social media! Be sure to look at our stats on these campaigns available in the blog section of our website. We have really hit it out of the park with our outreach numbers!

A big thanks to our members for their support on this outreach, and to our NFSA Manufacturers Council for their funding. The Council has challenged the NFSA staff to invest in the fire sprinkler industry in ways that are measurable, and this is such a good example!!

## June 2023 Board of Directors Meeting Report from President Ray

The NFSA Councils, Committees, and the Board of Directors concluded very productive meetings in beautiful Tacoma, Washington. Not only were the meetings perfect so was the weather. A special thanks to our Chair of the Board **Jim Boulanger**, and the Fire Sprinkler Advisory Board of Puget Sound for hosting and to our Pacific Northwest Regional Manager **Suzanne Mayr** along with Area Director **Nancy Hammonds** of Reliance Fire Protection for all the diligent work to make it a success.

Your association is in great health and the future is bright thanks to the dedication of a committed board of directors and all those who volunteer their time and money to serve this industry. As staff we are honored to serve and carry out the initiatives that work to improve and enhance the fire sprinkler industry.

It was an honor to present an award for 45 years of membership to Viking Fire Protection group. The Fire Sprinkler Advisory Board of Puget Sound also presented an award to Redmond, Washington **Fire Marshal Todd Short** for his many years of dedicated service and commitment to the fire and life safety of his community.

We said goodbye to long time board member **John Kauffmann** from Area 8 (Arkansas, Texas, Oklahoma, Louisiana). John retired from his company. **Conor Kauffman** was elected by the Contractors Council to fill out the remainder of his father's term. It's always great to see generations of family-owned companies in

the fire sprinkler industry continue their decades of service, it makes our industry stronger and that's our vision, a stronger industry, a safer world.

In addition to the on-going efforts in the codes and standards arena, legislative and regulatory initiatives, as well as our advocacy and outreach, The Chair of the Board appointed a temporary committee to establish the NFSA Fire Sprinkler Institute. He also appointed a permanent Training and Education Committee to evaluate the needs of our industry and develop a strategy going forward. We ended the meeting with a video recap of our bedroom and bathroom burn demonstrations. •

## NFSA Reps Fire Sprinklers at NFPA Expo

Team NFSA knocked another one out of the park at NFPA's Conference and Expo at Mandalay Bay in Vegas this week. The booth was a constant hub of activity, with attendees from Kansas to Korea stopping by the booth to ask how to get involved with our association. Questions ranged from training to codes and most everything in between. We were happy to see many fellow members and quite a few interested in becoming new members.

Our own **Terin Hopkins** presented on the 2023 update to NFPA 14-Standard for Installation of Standpipe and Hose Systems, to a standing-room-only audience. All in all, I am proud of, and very grateful to, the dedicated team of NFSA staff members who represented the Association at the conference and expo. I am excited to welcome the new members we will acquire thanks to the great outreach and hospitality provided by our staff. *Well done!*



**LinkedIn**

Did you know NFSA's LinkedIn Group has more than 13,000+ members? It's a great place to showcase your products and services.

*Join today!*





# SPRINKLERING OF NEWS

## ■ Dyne Fire Protection Labs Acquires Dropmaster™

Dyne Technologies dba Dyne Fire Protection Labs is excited to announce their acquisition of the Dropmaster™ product line. The manufacturing, distribution, and repair of this product will now be conducted at a newly constructed facility just outside of St. Paul, Minnesota. Dyne will carry on the mission started by Gecco Inc. offering fire protection contractors a way to remove the trapped water and odor safely and economically from fire sprinkler systems.



Eventually a need to service every fire sprinkler system, from residential to commercial, will arise. The Dropmaster™ DM12 eliminates residual water and odor in these systems through its patented siphoning system, allowing contractors to make inspections, repairs, and change outs in a safe and economical manner. Many contractors report labor savings in the 40%-60% range. Labor savings means more productive hours for the contractor and less down time for their clients.

*For more information visit [dropmaster.dyneusa.com](http://dropmaster.dyneusa.com).*



## ■ ASC Engineered Solutions Adds Two New Sway Braces to Its Seis Brace Seismic Bracing Product Family

ASC Engineered Solutions has added two new stainless steel attachment components of a complete sway brace assembly for fire protection sprinkler systems – AFCON® AF700SS Universal

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Quickly and safely replace or repair sprinkler heads with the Dropmaster™ DM12. The Dropmaster™ DM12's patented siphoning system removes trapped water on drops up to 20 feet long, allowing four sprinkler heads to be changed at a time, improving productivity and profitability.

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**DYNE**  
FIRE PROTECTION LABS



*continued from page 54*

Swivel Attachment and AF730SS Longitudinal and Lateral Sway Brace Attachment.

Using just the AF700SS and the AF730SS a complete stainless steel sway brace assembly can be formed for lateral, longitudinal, or four-way riser braces. For projects that require stainless steel material, ASC has a complete product solution for sprinkler main pipe from 1" to 8" IPS, and brace pipe from 1" to 2" IPS. These new stainless seismic products come complete with built-in visual verification of the required installation torque, with break-off bolts and nuts, and all the features and functionality needed for fast and easy installation.

Included in the Seis Brace™ software are stainless steel anchors for concrete applications so a complete zone of influence calculation can be done for stainless steel projects. The AF700SS is available in 1/2" through 3/4" anchor diameters. The software also includes stainless steel pipe for system mains, branch lines and brace pipe.

Like all ASC Afcon seismic products both the AF700SS and the AF730SS are UL Listed and FM Approved.

These new t-316 stainless sway brace products comply with project specifications for highly corrosion resistant products and with project specifications for non-magnetic products.

### ■ Viking SupplyNet Announces New Location for Kansas City, MO Branch

Viking SupplyNet announced that the Kansas City, Missouri branch has officially moved into a new space this week. The new facility is still located within its current building – making it a simple and convenient move for customers already familiar with the branch. The location will continue to serve Missouri, Kansas, Nebraska, Iowa and Northern Arkansas.

The Kansas City branch is just north of downtown Kansas City and 15 minutes from the new Kansas City International Airport, Arrowhead Stadium, and Kansas Speedway.

Our new Kansas City branch can be reached by phone at 816.474.8991 or by email at [kansascity@supplynet.com](mailto:kansascity@supplynet.com) or [vfskansascity@supplynet.com](mailto:vfskansascity@supplynet.com). Branch hours will be from 7 AM – 4 PM from Monday to Friday each week. Viking SupplyNet is committed to offering its customers the best products and services.

*For a simplified, modern ordering experience, visit [www.supplynet.com](http://www.supplynet.com) to browse and order products right from your seat, or to find your nearest branch.*

### ■ SFPE Seeks Public Comment

The SFPE Foundation, a charitable organization focused on enhancing the scientific understanding of fire and its interaction with the social, natural, and built environments, is soliciting public comment on four papers focused on strategic cooperation in research and education to advance fire engineering.

The four papers were published in July 2023 as part of the SFPE Foundation Grand Challenges Initiative. Now, the SFPE Foundation is soliciting comments from the public on four ten-year plans for strategic cooperation in research and education to advance fire engineering on the topics of:

- Climate Change
- Digitalization, Artificial Intelligence, and Cybersecurity
- Energy and Infrastructure
- Resilience and Sustainability

The papers can be downloaded from [sfpe.org/foundation](http://sfpe.org/foundation); all comments are requested by October 31, 2023.

### ■ Johnson Controls Autocall Foundation Series

Johnson Controls announced the launch of **Autocall Foundation Series** fire detection systems for small to mid-size building protection. The Foundation Series is a complete, off-the-shelf fire detection solution featuring addressable and non-addressable models, and a full range of reliable, proven Autocall devices.

The Autocall Foundation Series requires minimal training to install and program, making it ideal for technicians and electricians of all levels looking to complete their job efficiently and competitively. The series includes a free mobile app and quick, easy-to-follow online training videos that help installers become familiar with the equipment and learn fire alarm system basics.

The Autocall Foundation Series features four new fire alarm control units, including two non-addressable models with both four- and eight-zone options and two addressable models with both 50- and 250-point options. The addressable control units feature a 4-line by 40-character LCD display. The series also includes a full range of notification appliances, sensors and annunciators.

#### *About the Autocall Foundation Series*

With a compact all-in-one design, easy app-based programming, minimal training requirements and flexible supervising station connectivity, the Autocall Foundation Series is an ideal fire detection solution for any contractor looking to protect buildings like doctors' offices, strip malls, restaurants, small schools and more. *Visit [autocall.com](http://autocall.com) to learn more.* •

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	Tuition Per Credit Hour	Learning Partners <sup>†</sup> Per Credit Hour
Undergraduate Courses	\$245.00	\$220.50
Graduate Courses*	\$335.00	\$301.50
Doctoral Courses	\$435.00	\$391.50

Tuition rate effective July 1, 2022. Rates are per credit hour. Most courses are three (3) credit hours. Tuition and fees are payable in U.S. funds. Tuition Rates are subject to change. For the most current tuition information, please visit [www.ColumbiaSouthern.edu/Financial](http://www.ColumbiaSouthern.edu/Financial).

\*The tuition rate for graduate courses per credit hour is \$250 for all active-duty military members using military tuition assistance (not applicable for CSU learning partners). The lower rate is offered to keep the tuition rate at the DoD cap of \$250.

†CSU Learning Partners receive a tuition discount that is applied to the full tuition rate.

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- » Occupational Safety & Health
- » Environmental Management
- » Emergency Management Services
- » Organizational Leadership
- » Psychology
- » Public Administration
- » Public Health



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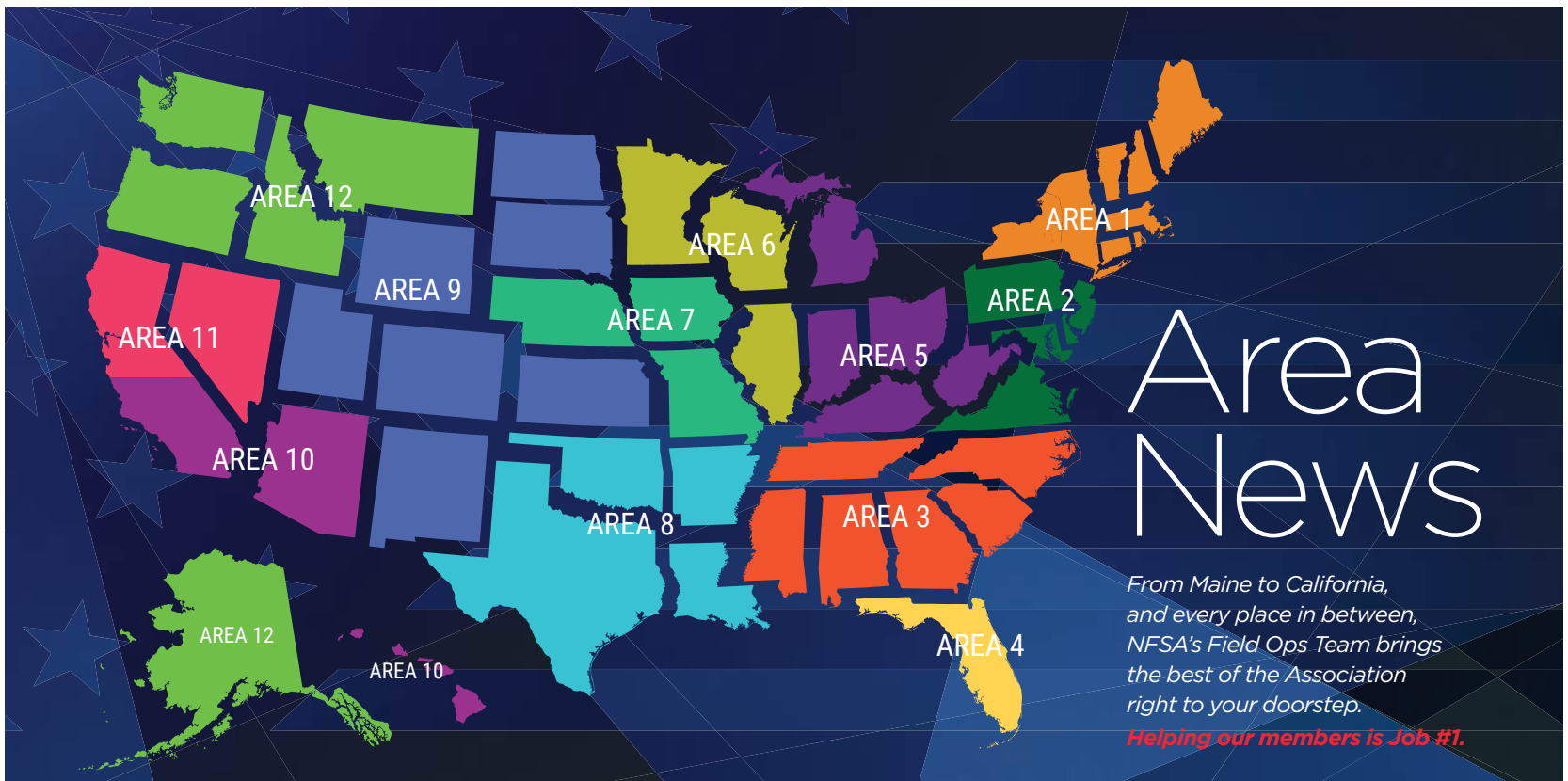


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🌐 [ColumbiaSouthern.edu/Partners](http://ColumbiaSouthern.edu/Partners)



**AREA 4**

FLORIDA, PUERTO RICO

**Mark Your Calendar for FFSA's  
Seas the Day Conference**

The Florida Fire Sprinkler Association conference committee recently conducted a site visit at the Wyndham Grand Clearwater Beach, FL, in preparation for our highly anticipated **2023 Seas the Day conference**. The hotel left us in awe with its stunning architecture, and the staff's exceptional service made the experience even more memorable.

Our meeting commenced with a delightful lunch at Ocean Hai, which boasts Clearwater's exclusive Asian-fusion menu. The dishes presented were not only visually dazzling but also featured the freshest catches expertly prepared. The meal was truly a culinary delight.

Following lunch, we embarked on a comprehensive tour of the facility, culminating in the spacious ballroom where most of our conference activities will take place. Our first event, the Fire Product Challenge, promises to be a unique and educational experience for vendors and attendees alike.

In the Fire Product Challenge, each vendor is responsible for providing content for a custom game board that imparts valuable information about their products and company. This allows them to share insights that they'd typically convey during sales calls, making it an interactive and informative session for everyone. Attendees will rotate through vendor stations in groups of five, spending five minutes at each table until they've visited them all. Additionally, there are three exciting roadblocks incorporated into the challenge:



1. "Name that Standard" hosted by NFPA,
2. "The Florida Law says What?" hosted by the Division of State Fire Marshal, and
3. A surprise technical event that promises to intrigue and engage attendees.

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Participating in the Fire Product Challenge awards Florida contractors four of the required CEUs, adding value to their conference experience.



Beyond the Challenge, the rest of the week is packed with a diverse agenda of engaging speakers, including the highly esteemed Susan Constantine. Susan is recognized worldwide as an authority on body language in relation to leadership and deception detection. With over 15 years of experience analyzing jurors, witnesses, and suspects in high-profile cases, she has been sought after as a human behavior expert for numerous noteworthy trials, involving individuals such as Amanda Knox, Jeffrey Epstein, Michael Jackson, Chris Watts, George Zimmerman, Casey Anthony, Jerry Sandusky, and Bill Cosby, among many others. Her expertise has been showcased on various esteemed media platforms, including Fox & Friends, ABC, CBS, CNN, Dateline, Discovery Channel, Good Morning America, HLN, ID, Marie Osmond, Nancy Grace, NBC, OWN, Dr. Phil, Today, and Tru TV.



There is so much to do in Clearwater including a great day of deep sea fishing leaving from the Marina just across the street. We went on the Double Eagle, and the fishing was great and the crew was fantastic!

The 2023 Seas the Day conference promises to be an enlightening and enriching experience for all attendees, fostering learning, networking, and inspiration within the fire sprinkler industry.

**AREA 5**

INDIANA, KENTUCKY, MICHIGAN, OHIO, WEST VIRGINIA

**NFSA's Legal Labor/Legal Team Serving our Members in Michigan**



The NFSA Michigan Chapter hosted a luncheon presentation by NFSA Labor/Legal Relations Managers Lance Gunnels and Josh Savitz "Trending Issues in Labor-Legal Matters" from both a state and national perspective on July 13th in Troy Michigan. Some of the topics discussed included: Paid Leave Laws, Overtime/FLSA, Independent Contractor vs. Employee, Pay Equity and Transparency Laws, Negotiating Terms and Conditions with General Contractors and conditions, Diversity/Discrimination, and others.

Thank you, Lance and Josh, for an outstanding presentation in helping us achieve our vision of "A stronger industry, a safer world."

**AREA 6**

ILLINOIS, MINNESOTA, WISCONSIN

**Fire Sprinklers Adopted in Lake County, Illinois**

On June 13, 2023, the Lake County, Illinois Board adopted the 2018 series of International Code Council building codes which takes effect on July 17, 2023. Within that building code is the provision for residential fire sprinklers, and a reduction in commercial building size in which fire sprinklers are required from the original IBC. NIFIA worked alongside Lake County Building and Zoning for two years on this code adoption.

In 2022, 86 people died in the state of Illinois in residential

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structure fires. If we can prevent one death in Lake County, it makes the entire process and cost of a fire sprinkler system in a home worth it. The County joins over 100 Villages and Cities in the area who already have fire sprinkler requirements for newly constructed homes. We would like to thank County Board Members Kevin Hunter and Adam Schlick, along with the rest of the Lake County Board and Lake County Fire Chiefs for helping with this endeavor and ensuring a safer Lake County for the residents and firefighters.

**AREA 8**

ARKANSAS, LOUISIANA, OKLAHOMA, AND TEXAS

**2023 Regular Legislative Sessions finished in May for Arkansas, Oklahoma, and Texas. Texas has now entered its second Special Session with goals to lower property taxes and create school choice financial systems.**

**Arkansas**

The Arkansas Legislature also had mostly positive Legislation affecting the fire sprinkler industry: SB 6 - Limited Lifetime Contractor License - Authorizes a limited lifetime license to anyone 65 years old who has been a licensed contractor for more than 12 years.

**Oklahoma**

The Oklahoma Legislature is in Special Session from May 17- June 17, 2023. Legislative Bills that affected the Fire Sprinkler Industry during the Regular 2023 Session were minimal and mostly positive! HB 1332 – Modifies the Duties of the Alarm, Locksmith and Fire Sprinkler Industry Committee – changes the Committee responsibility to be “assist the Commissioner in determining qualifications. The goal of the Committee duty modification is to remove liability from Committee members.

**Texas**

**HB 2063/HB 66 Pet Kennels**

The new Texas Dog and Cat Kennel Informed Consent Law was signed by Governor Abbott: Texas HB 2063: Informed Consent before a dog or cat may be boarded at a kennel and left unattended; providing a civil penalty will be effective 9/1/23.

HB 2063 was a quickly and quietly substituted bill to HB 66 - Retrofit protection of kennels. HB 66 which would have required fire alarms and/or sprinkler systems in some pet facilities did not move forward in the Texas Legislature. Both bills were submitted by Representative Talarico in response to the Georgetown Ponderosa Pet Fire which killed 75 dogs.

The Fire Protection industry and the Pet Survivors were not contacted regarding HB 2063 and neither of us are happy with this bill as it does not actually protect animals in any way and it could limit liability, etc. Hence, we are not talking about this bill much.

The only positive from HB 2063 and HB 66 is that we are in

contact with the Texas Pet Survivors, and they very much want to advocate for fire protection and that NFSA is also working on better data collection for Pet/Animal Fires (which there have been ten more Texas animal housing fires since the Ponderosa Fire in 2021.) NFSA will continue to advocate for best fire protection to pets and people (Currently, human residents do not have 'informed consent' when they move into unprotected properties.)

**Fire Protection Bills That Did Not Happen**

**HB 3804** - Sprinkler System Requirements For Certain Residential Buildings

**HB 3804** - NFSA worked very closely with Texas Fire Chiefs and Fire Marshals to successfully educate lawmakers about this proposed law and then eradicate this bill that would have prohibited developers from using construction trade-ups and incentives.

**HB 1466** – Regulation of Certain CEUs (Continuing Education) For The Fire Alarm Industry

Governor Greg Abbott vetoed House Bill No. 1466 on June 16, 2023. HB 1466 was passed by the Eighty Eighth Texas Legislature during the Regular Session. Governor Abbott had the following objections: “As governor, I have dismantled unnecessary barriers to employment. Texans should have the freedom to get – and keep – a job, but House Bill No. 1466 would raise an unjustified obstacle to maintaining an occupational license for installing fire alarms. This bill can be reconsidered at a future special session only after education freedom is passed.”

Most Texas Licensed Professionals require CEUs including Hair & Nail Stylists. NFSA supports rigorous fire protection training and education to keep up with changing life safety technology (such as lithium battery fires) standards, codes, and risks.

**AREA 9**

COLORADO, NEVADA, NEW MEXICO, NORTH DAKOTA, SOUTH DAKOTA, UTAH, WYOMING

**Colorado**

**Commerce City Adopts Residential Sprinklers**

South Adams County Fire Department announced, starting on November 15, 2023, Commerce City has adopted residential fire sprinkler systems. Residential fire sprinklers will now be required in all new residential 1-2 family dwellings, including single-family homes, townhomes, and duplexes up to three stories. New residential construction will be required to have residential fire sprinklers installed if the structure is less than 8 feet from property line according to the amended Commerce City 2021 International Residential Code (IRC), (ordinance 2480).

Thank you to The City of Commerce City Staff and South Adams County Water & Sanitation District for supporting the ordinance and your commitment to the safety of our residents.

“Division Chief of Fire Prevention/Fire Marshal Randall Weigum says home sprinklers give residents a better chance of escaping a fire.”•



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