

National Fire Sprinkler Magazine

November-December 2022

No. 236



The Flagship Publication of The National Fire Sprinkler Association

THE BEST OF EOD

Best questions and answers of 2022



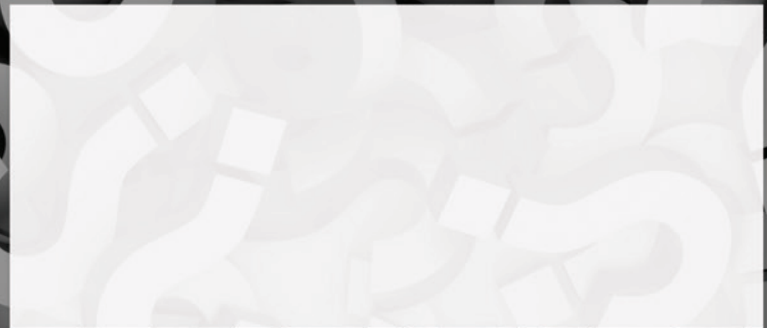
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ON THE COVER

Team NFSA is proud to present our Best of EOD issue! We've collected the best and most often asked EOD questions of 2022 and focused our articles on the answers.

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NOVEMBER 2022

Pumps for Fire Protection

When: Nov 1, 2022 from 08:00 AM to 05:00 PM (MT)

Where: Colorado Springs Fire Department Station 8, 3737 Airport Rd, Colorado Springs, CO

Hydraulics for Fire Protection

When: Nov 2, 2022 from 08:00 AM to 05:00 PM (MT)

Where: Colorado Springs Fire Department Station 8, 3737 Airport Rd, Colorado Springs, CO

Design Advantage – Fire Sprinkler Systems and the International Building Code

When: Nov 3, 2022 from 08:00 AM to 05:00 PM (MT)

Where: Colorado Springs Fire Department Station 8, 3737 Airport Rd, Colorado Springs, CO

Rough and Final Inspections of Fire Sprinkler Systems

When: Nov 3, 2022 from 08:00 AM to 05:00 PM (PT)

Where: Scappoose Rural Fire Protection District, 52751 Columbia River Highway, Scappoose, OR

Rough and Final Inspections of Fire Sprinkler Systems

When: Nov 4, 2022 from 08:00 AM to 05:00 PM (MT)

Where: Colorado Springs Fire Department Station 8, 3737 Airport Rd, Colorado Springs, CO

Rough and Final Inspections of Fire Sprinkler Systems

When: Nov 8, 2022 from 08:00 AM to 05:00 PM (CT)

Where: Broken Arrow Public Safety Complex, 1101 N. 6th Street, Broken Arrow, OK

Fire Sprinkler System Plan Review (2-day)

Starts: Nov 9, 2022 08:00 AM (CT)

Ends: Nov 10, 2022 05:00 PM (CT)

Where: Broken Arrow Public Safety Complex, 1101 N 6th St., Broken Arrow, OK

Tech Tuesday: Best of NFSA's Expert of the Day: NFPA 25 – ITM

When: Nov 15, 2022 from 12:30 PM to 01:30 PM (ET)

Understanding, Applying and Enforcing NFPA 25

When: Nov 16, 2022 from 08:00 AM to 05:00 PM (ET)

Where: NFSA Headquarters, 514 Progress Drive, Suite A, Linthicum Heights, MD

DECEMBER 2022

Inspection and Testing for the Fire Sprinkler Industry

Starts: Dec 13, 2022 08:00 AM (ET)

Ends: Dec 15, 2022 05:00 PM (ET)

Where: NFSA Headquarters, 514 Progress Drive, Suite A, Linthicum Heights, MD

Tech Tuesday: Best of NFSA's Expert of the Day: NFPA 20 – Fire Pumps

When: Dec 20, 2022 from 12:30 PM to 01:30 PM (ET)



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Prepared to Pivot

Three years in a row...the decisions got more challenging and difficult each time in the early phases, but the outcome was the same after all three events; NFSA did what was in the best interest of the association and our members. I am referring to the last three years of conferences, which with postponements and rescheduling, was really five critical decision points.

Our hearts go out to those impacted by the world-wide pandemic and the latest hurricane.

It is an honor to serve with the team at NFSA, our Board of Directors, the Seminar Committee, and the Executive and Finance Committee – all the key decision makers who ensure the health, safety, and general welfare of our members and staff, as well as the financial health of the Association.

The conference was not the only event at which NFSA was adept at pivoting. We have been on regional and national television with our commercials over the past five years, Good Morning America once, and Fox & Friends three times, thanks to our partners at Common Voices and Underwriters Laboratories Fire Safety Research Institute. Well, we had the same offer this year for a burn in New York City, but the dates change, and the permit process changes, but our team is still ready at a moment's notice. We were hopeful that President Biden was going to join us for the first ever US Fire Administrators Summit held at the National Emergency Training Center in Emmitsburg, Maryland, he didn't, but we still presented and made a difference as always.

One of the greatest pivot points I enjoy partnering with is our work in the codes and standards arena. After the latest NFSA Engineering & Standards (E&S) Committee meeting and the October NFSA Board of Directors meeting, a lot of great debate over several controversial issues were all handled masterfully by staff.

We had a record year for new membership, which required a lot of pivoting. Every event, every trip to visit members, participating in charity golf outings, etc. requires a lot of commitment from staff and a lot of shuffling with schedules. When I hired into this position, I challenged staff to help me learn our members, and they have certainly excelled at that.

A vision-driven, mission-focused organization is always able to pivot on a moment's notice. Our team at NFSA is a model of this. Yes, we all have our devil in the details, however, our team works tirelessly together to ensure the details and logistics are not observed but learned from.

As election time approaches, with nominations and elections occurring as this edition of the magazine is going out, I can't help but be thankful to our Board's members, both current and past. They have all touched my personal and professional life in a positive way. I want to mention those people who have been elected to and served on the board. These people have either left their position or this is their last term since my tenure as president.

Thank you to Dennis Coleman and Wayne Gey for calling me to apply for the position. Thank you to all those who have mentored me and served the fire sprinkler industry with all their resources. Thank you Kent Mezaros, Bruce LaRue, Aaron Bennett, Bob Bussiere, Clark Gey, Buck Buchanan, Gregg Heuennkens, Gene Postma, Rich Ackley, Kevin Ortyl, Jack Thacker, Rekha Agrawal, Don Deluca, and Alan Wiginton for what you contributed to NFSA, the fire sprinkler industry, and for supporting me.

NFSA is so blessed with our 117-year history (anniversary November 5, 1905). Those that have gone before us have created such a great institution, which is written in words on a wall at my favorite restaurant in Washington, D.C., "Institutions are Stronger than Men." Our Chair, Jim Boulanger, taught me that the fire sprinkler industry is a small, specialty trade, in comparison to the overall construction industry, and had it not been for a strong association it might have been gobbled up by others.

Our diverse Board of Directors, made up of the Contractors Council, SAM Council, and Manufacturers Council, is a great institution that was built to pivot with the times, and I surely believe we will be the "Voice of the Fire Sprinkler Industry" forever.

Thank you to each member of this great association for your support of NFSA and your commitment to this great industry. •



God Bless,

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

Shane Ray, President



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Time Warp!

Today when someone tweets from their smart phone at 9am and the whole world reacts in the few minutes or hours that follow, it just amazes me. Or maybe it is an Instagram post of your activities over the weekend. Next thing you know, boom, immediately some high school classmate you have not seen in decades responds to the grey hair in your pictures. News and information travels widely and at light speed. Yesterday's news takes a back seat to today's reality.

So here I find myself writing an article for the November/December issue of **National Fire Sprinkler Magazine** a week before our September Conference in Clearwater, Florida. By the time you read this, the conference will be over, the NFL season will be wrapping up, everyone will know who won the World Series, and God willing maybe peace will have broken out in Ukraine. The day will come in the not-too-distant future when this slow information flow might change and our colorful pictures laying on members' desks on beautiful paper will probably disappear. When that day does occur and everything is on the screen, I for one will miss this paper magazine. For now, appreciate it and all the wonderful advertisers who support it!



Just because of slow information flow, I really should not make some future predictions that you can judge me on in a month or two. It's probably best I stick to historically correct past information.

Let us start with EOD (*Expert of the Day*). When we have polled our members over the last several years, one of the benefits most appreciated is EOD. This issue #236 of the **National Fire Sprinkler Magazine** highlights that effort with The Best EOD Questions of The Year. Hundreds of calls and emails are received annually by NFSA Technical Staff with the goal of helping members solve design issues; many times, in response to Authority Having Jurisdiction disagreements. The industry has become more complicated; the code books have grown; the special listings cover a multitude of rules and restrictions. Confusion can rain through the approval process. Your former Chair, Kent Mezaros, was adamant that we needed to continue making EOD an NFSA priority, and thanks to his leadership we have. The need is especially strong among small contractors when they have nowhere else to turn to gain information and understanding. So, if you have used EOD once a year or once a month, understand it is a member benefit for you and your people. Take advantage and contact NFSA when you need the help. You may not always like the answer, but odds are, that answer will be the right one.

When I began writing this article, I was tempted to write: *"I hope to see many of you next week in Florida!"* Little did I know that Hurricane Ian would have something to say about that! Luckily, we have an NFSA Team that is adept at thinking on their feet. The seminar seamlessly went virtual, and we were able to enjoy some great presentations from industry leaders! I hope you got a chance to attend. If not, the program should be available on the NFSA website. Be sure to check it out!

I hope to see everyone in just eight short months in Austin, Texas for the **2023 NFSA Seminar and North American Fire Sprinkler Expo**. May 3-6th. It is going to be a spectacular Event!

All my best

Jim

#fastestwater

Fire Sprinklers Save Lives!

The Importance of Disaster Preparedness for a Small Business

by Pierre Jean-Claude

Some of the biggest challenges businesses face are in the shape of disasters, especially the natural ones. It does not matter which part of the world your business operates in; natural disasters are possible in every part of the planet. Floods, storms, hurricanes, earthquakes, etc. are among the most common types of natural disasters. Therefore, it is highly recommended that you have the right preparation for a natural disaster. According to the Red Cross, major natural disasters such as earthquakes and floods are so damaging for small businesses that 40% of those that get hit by one of these shut down forever.

So, what is the importance of preparing for disasters for small businesses?

A Professional Impression

Disaster preparedness and disaster recovery plans are often associated with large enterprises and organizations. But are small businesses protected from disasters? Your small business needs a disaster plan just as much as any big business out there. Having a disaster plan integrated into your system and documented gives off a very professional impression of your business. Furthermore, your employees will also be happy that they are working with a company that thinks long-term.

Prevention of Various Disasters

While there is nothing much that can be done about natural disasters, you can do something about disasters caused by humans and their errors. A human can cause damage to your property on purpose as a result of jealousy, reaction to some unfair treatment or as a bad business tactic. When you have the right equipment and system in place, it is difficult to cause such damage to the business. In most cases, human-made disasters are in the form of a fire that can burn all the important documents for a company and any systems that store valuable customer information. That's where fire sprinklers come into play, any smart, responsible business will have them

Safety of Employees

Preparing for a disaster does not always mean you have to maintain business continuity. In fact, another important part of disaster preparedness is the safety of your employees. At times, you can't instantly tell what might go wrong. A storm or hurricane can cause damage to electric poles and wires. If not protected properly, this damage can result in the deaths of your employees. Furthermore, when you are not prepared to face a flood, you might end up calling your employees to work, resulting in damage to their vehicle.

Business Continuity

One of the reasons to be prepared for disasters is to maintain business continuity. If you reside in a region where certain types of natural disasters are common, you must prepare for these first, and then for other types of disasters. For example, a business in Japan will have to prepare for an earthquake and the Tsunami. In some parts of the U.S., there are more tornadoes every year than there are storms in the entire country. When you have a plan for such disasters, you can ensure the continuity of your business even when the disaster strikes.

Continuing business operations can be as easy as asking your employees to work from home. To make this possible, you might want to have all your data and important business applications moved to cloud, so when your company servers are down, you can still have your employees able to work. Another important aspect of continuing your business despite great disasters is backing up your data. When it comes to backup, you can't back up the data in one location only. The idea is to back up your business data every day and move the backup to another location. If your budget allows, you can back up the data in even more locations than two.

Quick Response

An important aspect of disaster preparedness is to share this knowledge with your employees. You should update them with any changes you make to your disaster preparedness and recovery



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plan. For example, if a sudden fire breaks out inside your business premises, your employees must know what the first course of action must be. You should also ask your employees to have all the important business applications, software tools, etc. installed on their devices if your response to a disaster is asking them to work from home. When your employees know exactly what to do in the case of a disaster, they can get a response to a bad situation instantly, so you face virtually no downtime.

Cost-efficiency

Disaster preparedness and recovery are not just about being ready to handle a disastrous situation. In fact, it is also about being able to operate the business and recover business operations after a disaster hits with as minimum resources as possible. A business without a disaster plan can also recover from a disaster. However, the huge difference here is that the unprepared business will have to spend a lot of money and resources to get back on its feet whereas a business with a plan will continue its operations with minimum efforts.

Improved B2B Relations

It is not just your customers but also your business partners that get affected when your business shuts down temporarily due to a disaster. They might be relying on you for their mission-critical processes, and your absence can cause them to either stop their operations or find another partner to make things work instantly. On the other hand, if your business is still running despite getting hit by a disaster, your business partners will take a very positive impression of you. This is going to help you retain your business partners as they can trust your professionalism and seriousness with business.

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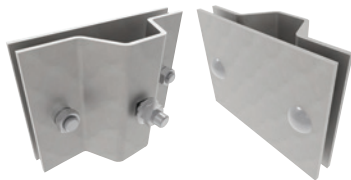


Fig. 131 seismic structural brace attachment

- Design allows for a secure, positive connection with only two holes in the wooden structure (joist)
- Break-off nut design helps assure verification of proper installation torque
- Features installation stamp mark to help with proper installation orientation



Fig. 74 upper attachment

- UL listed and FM approved.
- For use with multiple types of fasteners to attach to concrete, steel or wood structure

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Conclusion

To prepare for disasters, the first thing you have to do is change your mind about the whole situation. Many small business owners think that things like disaster plans are better suited for large enterprises or when a business has grown big enough to have multiple branches. What they don't realize is that it is much easier to recover from a disaster when you have multiple locations than it is when you have only one location. So, start assessing your risks, create a sound communication plan and document your disaster preparation plan today.

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Synthetic Fluorine Free Foam Systems



FM Approved Fluorine Free Foam Systems

Viking now offers the industry's first FM Approved Synthetic Fluorine Free Fixed Foam System (SFFF) for Hydrocarbon and Polar Solvent applications. SFFF foam can be used in non-aspirated closed or open sprinkler configurations, such as those found within warehouses, chemical manufacturing areas, loading racks, aircraft hangars and more.

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Best of EOD: Fire Pumps and NFPA 20

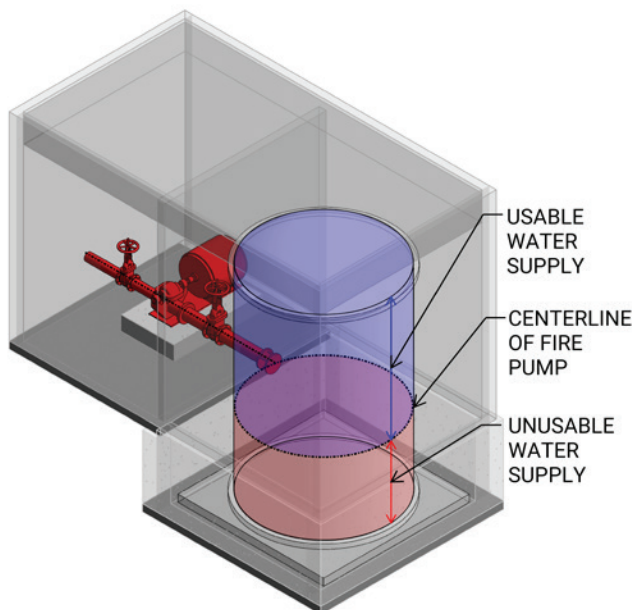
by Jeff Dunkel, P.E.



The NFSA responds to EOD questions daily on wide variety of codes and standards, the vast majority of which are NFPA 13 questions. However, questions about NFPA 20 are common, and for good reason, it can be complicated. In this edition of NFSM, I have chosen a few questions that are both common and applicable to most fire pump designs. These examples are what I will call the “Best of EOD” regarding NFPA 20. This article will provide both the question that was submitted along with the answer provided. Also included is the background for these requirements and illustrations to provide further clarity.

Question 1: Suction Tank Elevation in Relation to Vertical Turbine Fire Pump

The proposed pump/tank arrangement as shown in the sketch seems to be poor for any type of pump. A centrifugal pump cannot rely on a lift per NFPA 20, 2019 edition, Section 6.1.2, so any water below the intake could not be considered usable for the secondary onsite required water supply for a high rise. A vertical



turbine pump would not work as the water pressure from the above grade portion of the tank would cause it to come out of a vertical turbine pump well. Are there any other solutions besides lowering the tank below grade for a vertical turbine pump or raising it level with the intake of a centrifugal pump?

Answer 1:

No, based on the information provided, there are no other solutions when using a horizontal split case or vertical in line pump at the elevation of the pump room floor. The useable water would only be that above the centerline of the pump. To use a vertical turbine pump, the pump would have to be located above the tank and the water level in the tank would have to be located below that of the fire pump room floor.

Given the diagram provided for the tank, the following options could be considered:

1. Provide a horizontal split case or vertical inline pump at the fire pump room floor elevation and ensure the volume of the tank above the centerline of the pump can meet the system demand.
2. Lower the floor of the pump room to the water tank pit elevation and use a horizontal split case or vertical inline pump and the entire volume of the tank.
3. Lower the top of the tank to an elevation below the floor elevation of the pump room and provide a vertical turbine pump directly on top of the tank or on top of an associated pump vault or well below the fire pump room.
4. Provide a vertical turbine pump in a fire pump room located directly above the tank.

Centrifugal pumps must be continuously primed to work properly, if these pumps loose prime, they will become air bound. When air is introduced into the pump the impeller is incapable of forcing the air out to bring more water in. In order to ensure there is a consistent supply of water, the minimum level of the water supply must be above the centerline of the fire pump. In addition to a minimum water level the pressure at the suction flange must be above 0 psi when supplied by an underground water main, and minimum of -3 psi when supplied by a suction tank.

While the pressure on the suction line is permitted to be negative

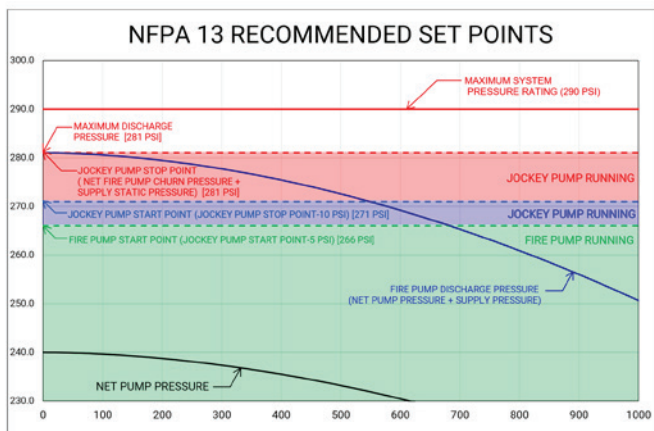
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for suction tanks, this is not an allowance for drafting. The -3 psi allowance is intended to accommodate the pressure loss due to friction from the pipe between the tank and the pump. Without this allowance all tanks serving fire pumps would either need to be gravity tanks or a portion of the supply in the tank would be unusable.

Question 2: Fire Pump/Jockey Pump Set Points

Fire pump churn is 240 psi and city static at suction is 41 psi. The maximum working pressure of jockey pump with city pressure is 273 psi so it can't meet the 281 psi suggest cut out point. How low of a cut out point for the jockey pump would be acceptable? Would it have implications with the fire pump if the setting are too low?



Answer 2:

NFPA 20, 2016 edition, Section 4.26.4 requires the pressure maintenance pump have discharge pressure sufficient to maintain the desired fire protection system pressure.

It should be noted that Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

NFPA 20, 2016 edition, Section A.14.2.6(4) suggests that the jockey pump stop point should equal the pump churn pressure plus the minimum static supply pressure. In your case this would be the 281 psi. The jockey pump start point should be at least 10 psi (0.68 bar) less than the jockey pump stop point. In your case this would be 271 psi. The fire pump start point should be 5 psi (0.34 bar) less than the jockey pump start point. In your case this would be 266 psi.

The handbook commentary on this section indicates because the main fire pump start point is lower than the pressure maintenance pump start point, care should be taken to ensure that the settings given in Section A.14.2.6.(4) (b) are not so low that a pressure shock is created when the main fire pump finally does come on.

With the annex recommended start pressures, the fire pump would start at 266 psi and raise the system pressure to 281 psi for a 15 psi increase in pressure.

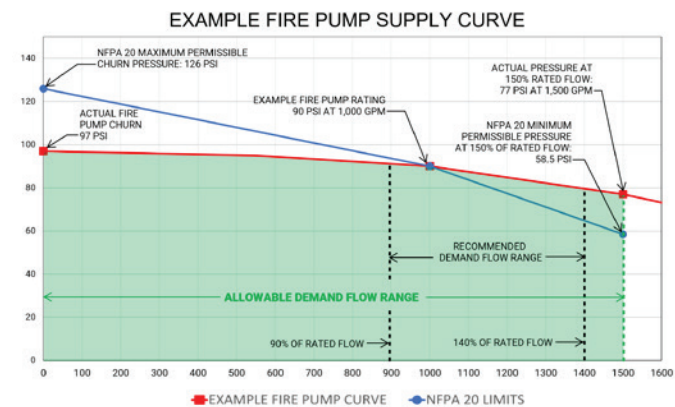
With the jockey pump you currently have, the jockey pump start pressure would be 263 psi and the jockey pump stop pressure

would be 273 psi. This would make the fire pump start pressure 258 psi and raise in the system pressure to 281 psi for a 23 psi increase in pressure. This is an additional 8 psi increase in system pressure when compared to the recommended pressures provided by the annex.

The standard does not provide a prescriptive requirement for pressure maintenance and fire pump start pressures. The intent is to ensure the settings are not so low that a pressure shock is created when the main fire pump starts. The design professional, AHJ, and fire pump manufacturer's representative should be consulted and agree on the settings, however it seems reasonable to start the fire pump at 258 psi in your example and increase the pressure to 281 psi.

Question 3: Fire Pump Capacity

With fire pumps "rated" out to 150% of their designed flow, is there anything in the NFPA standards stipulating or recommending how far out on the pump curve a calculation demand can go? In other words, can you calculate a system demand and utilize up the 150% of the pumps rated capacity? Does FM Global have their own criteria?



Answer 3:

NFPA 20, 2019 edition, section 4.10.1 indicates a centrifugal fire pump for fire protection shall be selected so that the greatest single demand for any fire protection system connected to the pump is less than or equal to 150 percent of the rated capacity (flow) of the pump.

Annex Section A.4.10 indicates: "The performance of the pump when applied at capacities over 140 percent of rated capacity can be adversely affected by the suction conditions. Application of the pump at capacities less than 90 percent of the rated capacity is not recommended."

Factory Mutual FM Data Sheet 3-7 section 2.5.1 dictates pumps shall be sized to meet the maximum required flow and pressure demand for the system. Section 2.5.2 states that for centrifugal pumps, a maximum of 140% of the pump rated flow capacity shall be used to meet the combined system demand and hose streams (if also supplied by the fire pump).

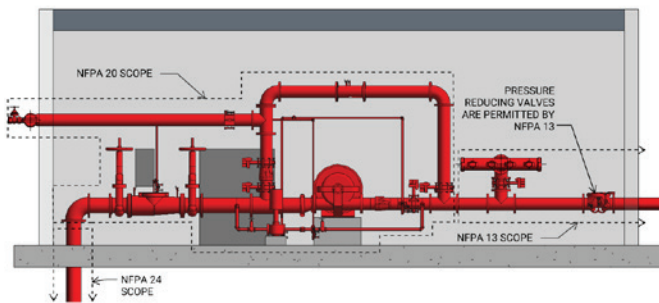
Fire pumps can be sized by NFPA 20 with a fire protection system demand (including hose stream if applicable) up to 150% of the

continued from page 12

pump's rated capacity, but the annex recommends not to exceed 140% of the pump's rated capacity. Factory Mutual requires fire pumps to be sized with a total system demand (including hose stream if applicable) up to 140% of the pump's rated capacity. For example, a 1,000 gpm rated fire pump can be used to supply fire protection system demands up to 1,500 gpm by NFPA 20 (maximum 1,400 gpm recommended) and up to 1,400 gpm by Factory Mutual

Question 4: Pressure Reducing Valve Location

We have an ESFR warehouse with fire pump. During churn condition, the pressure exceeds 175 psi. Can a pressure reducing valve be installed after the pump discharge isolation valve?



Answer 4

Yes, the NFPA 20, 2016 edition, requirements for pressure reducing valves only applies to the fire pump discharge piping which is up to and including the fire pump discharge control valve. After the fire pump discharge control valve, the specific system standards are applicable such as NFPA 13 and/or NFPA 14 which do allow pressure regulating devices with some restrictions. The maximum pressure from the fire pump discharge would need to be satisfied up to and including the pressure reducing valve.

Section 4.16.11 for pressure regulating devices indicates no

pressure regulating devices shall be installed in the discharge pipe except as permitted in this standard. Section 4.16.1 indicates the discharge components shall consist of pipe, valves, and fittings extending from the pump discharge flange to the system side of the discharge valve.

Section 4.7.7.2 indicates pressure relief valves and pressure regulating devices in the fire pump installation shall not be used as a means to meet the requirements of 4.7.7.1 for maximum system pressure. Section A.4.7.7.2 indicates it is not the intent of this subsection to restrict the use of pressure reducing valves downstream of the discharge isolation valve for the purpose of meeting the requirements of 4.7.7.

I suggest locating the pressure regulating valve as far away from the jockey pump controller sensing line as possible to increase the volume of water in the pipe and help dampen the change in pressure when the pressure regulating valve opens or closes to control discharge pressure.

Why does it matter if the pressure reducing valve is down stream of the discharge control valve? NFPA 20 prohibits the use of pressure reducing valves primarily to ensure the selected fire pump is not capable of exceeding the system pressure rating without the use of a regulating device that can fail. Using a pump that does not exceed the system pressure rating is best practice, however not always achievable. High pressure demands or systems at high elevations relative to the water supply could create a situation where the demand cannot be met without a pump churn exceeding the system rating, which is why pressure regulating devices are still permitted by NFPA 13 and NFPA 14.

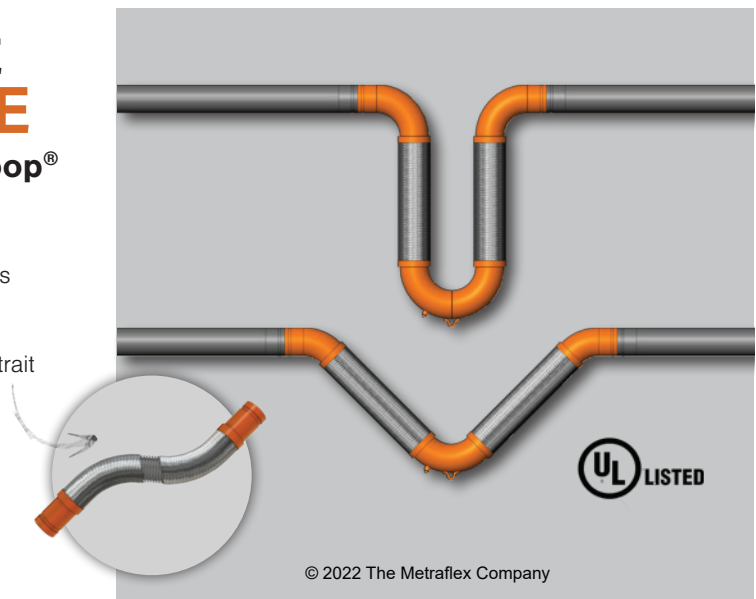
There are two situations where NFPA 20 specifically permits the installation of pressure reducing valves. The first is for systems supplied by a variable speed drive where the churn pressure could exceed the system rating if the variable frequency drive were to fail. The second is for diesel driven pumps where 121 percent of the maximum discharge pressure (churn plus static pressure) exceeds the system pressure rating.

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Best of EOD: Model Codes

by Jeffrey M. Hugo, CBO, [National Fire Sprinkler Association](#)



The majority of NFSA's Expert of the Day (EOD) program focuses on NFPA 13, NFPA 13R, NFPA 20, NFPA 25, and other fire protection standards. It also handles dozens of questions annually on model codes, such as those published by the International Code Council (ICC) and the National Fire Protection Association (NFPA) listed below:

- International Building Code (IBC)
- International Fire Code (IFC)
- International Existing Building Code (IEBC)
- International Residential Code (IRC)
- NFPA 1, Fire Code
- NFPA 101, Life Safety Code
- NFPA 5000, Building Construction and Safety Code

EOD Questions on Codes

Questions from NFSA members for the NFSA Subject Matter Experts (SME) on model or adopted codes are fire sprinkler related. Often the questions are interrelated with the referenced standard, such as the 2018 NFPA 1, *Fire Code* references the 2016 edition of NFPA 13. Questions come from the local code officials or Authorities Having Jurisdiction (AHJ) regarding a contractor's interpretation of a code. Questions also come from contractors when an AHJ cites a violation of a code or standard. Regardless of the author of the question, the top topics that land on the EOD process for model codes are:

- Aircraft hangars
- Occupancy, use, group, hazard, and classification
- Existing buildings
- High rise
- IBC sprinkler thresholds
- Parking garages
- Stairwells
- Standpipes (see August 23, 2022 TechNotes #494 edition)
- Water supplies

Aircraft Hangars

Questions about aircraft hangars are typically regarding the fire sprinkler and foam system differences between the IBC and NFPA 409. Since the 1991 *Southern Building Code* to the current edition of the IBC, Section 412.3.6 refers to NFPA 409 for the fire protection system but exempts the NFPA 409 foam requirement for Group II hangars when the fixed based operator has separate facilities on site. Group II hangars in NFPA 409 are protected with a combination of fire sprinkler and foam systems. The current exception in the IBC allows the foam system to be removed without an alternative protection path from NFPA 409 to do so. It is easily misinterpreted reading the 2016 NFPA 409, Section 7.2.5 to permit a fire sprinkler system density of 0.17 gpm over 5,000 sq ft. however, this density is applied with a foam system. The IBC has no guidance on what the design density should be and NFPA 409 still requires foam for Class II hangars regardless of the FBO repair facility.

NFSA action to change this item was proposed to the IBC General Committee for the 2024 IBC. The change included language to apply a minimum sprinkler density to compensate for the lack of foam protection. The IBC committee did not approve the change but instead recommended NFPA 409 to provide protection criteria.

Occupancy, Use, Group, Hazard, and Commodity Classification

Model codes classify buildings by their occupancy, use, and group, whereas NFPA 13 classifies the space as a hazard and the storage as a commodity. The change of occupancy, use, and group in model codes can be a complicated subject. New and existing building rules are easier clarified in NFPA 1 and NFPA 101 with the new and existing occupancy chapters, but most of the U.S. uses the IBC, which references the IEBC and IFC for applying new systems in existing buildings. EOD questions vary broadly on this topic, but when an EOD lands on a model code and these topics, it often is seeking to clarify the codes on the following:

- The application of construction documents and permit requirements for new and existing sprinkler systems in new and existing buildings.
- To classify specific buildings and their sprinkler requirements.

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- The application of the codes in mixed use buildings with mixed standards.
- The correlation of IFC and NFPA 1 storage protection with NFPA 13.
- The change of occupancy, use, group within an existing building that triggers sprinklers.

NFSA action to change these items are consistently acted upon in each model code cycle. Some of the dozens of changes the NFSA has championed in the model codes are:

- 2015 edition of the IBC, the NFSA lowered the sprinkler threshold on education buildings from 20,000 sf to 12,000 sf.
- 2018 edition of the IFC correlated the high-piled storage requirements in Chapter 32 to NFPA 13.
- 2021 edition of the IEBC lowered the threshold for retrofitting sprinklers in existing buildings.

Existing Buildings

Model codes that deal with existing buildings are the IEBC, IFC, NFPA 1, and NFPA 101. Often, EOD questions are dealing with changes to an existing building or process, as described previously. However, a significant number of questions deal with retrofitting existing buildings. In the 2006 NFPA 1 and NFPA 101, nightclubs were required to retrofit with fire sprinklers after the Station Nightclub fire. It took until the 2018 IFC to require bars, restaurants, and nightclubs to be retrofitted with sprinklers. EOD questions often deal with the discrepancies and interpretation between the NFPA nightclub and IFC A-2 designations.

Retrofitting high-rise buildings has long been required by NFPA 1 and NFPA 101, whereas it was not until 2021 that the IFC caught up with similar requirements to retrofit all high-rises over 120 ft (75 ft in some cases) with fire sprinklers. EOD questions often relate from partial to full sprinkler systems, standpipes, and redundant water supply.

NFSA action to change these items are consistently acted upon in each model code cycle. It was the NFSA, along with many allies, that finally got the ICC membership to recognize the importance of retrofitting existing assembly and high-rise buildings with sprinklers. The IEBC is a model construction code for existing buildings where the NFSA has made many changes that favor sprinkler installation. Here is an older article that helps break down the IEBC for the fire sprinkler industry user.

High-Rise

The September 11, 2001, attacks on the World Trade Center and Pentagon promulgated codes and standards changes over several editions. In the 2009 edition of the IBC, special provisions for redundant water supply and systems were added for high-rises over 420 ft in height. One of the primary reasons for the WTC failures was the interruption of the water supply to the building and systems. The 2009 IBC changes are not clear, so, several EODs issued informal interpretations for the application of the redundancy objective.

NFSA action based on several EODs written on the 2009–2021 IBC editions resulted in sweeping changes in the soon-to-be-published 2024 edition of the IBC. These changes extended into NFPA 13, NFPA 14, NFPA 20 and the IBC to help correlate language, terminology, and application to these super high-rise buildings.

IBC Sprinkler Thresholds

Some buildings have mandatory fire sprinkler requirements, such as residential (multi-family), institutional (hospital, nursing), and high-hazard occupancies. The remaining occupancies, such as assembly, business, factory, mercantile, and storage,



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have fire sprinkler thresholds based on the square footage of the fire area or building. This means several buildings can still be built without sprinklers. Often, AHJs or contractors question, through EOD, if another designer, such as an architect, has correctly applied the code to get out of a fire sprinkler system. Navigating the codes can be a tricky endeavor, even for experienced design professionals, so, the EOD program can become the place for several parties to converge to discuss the issue.

NFSA action on fire sprinkler thresholds has resulted in mandatory sprinkler requirements, such as the 2003 IBC multifamily residential and 2009 IRC for single-, two-family, and townhouse requirements in the IRC. The NFSA also reduced education occupancies from 20,000 sf to 12,000 sf in the 2015 IBC, but was able to get new education occupancies fully sprinklered in the 2018 NFPA 101. The 2021 IBC and 2024 NFPA 1, NFPA 101, and NFPA 5000 also required sprinklers in most new open parking garages.

Parking Garages

Mixed-use buildings often contain parking underneath, underground, or adjacent to another occupancy. The separation can be podium or pedestal construction, fire walls, or fire barriers. Questions from NFSA members generally surround the separation of the parking garage to the adjacent occupancies, system type, and standpipe applications.

NFSA action has made several changes for contractors and designers for parking garages. In the 2021 IBC, the NFSA and allies removed the exemption for open parking garages, and established a threshold requiring sprinklers when the open parking fire area exceeds 48,000 sf. The 2024 NFPA 1, NFPA 101, and NFPA 5000 also required sprinklers in most new open parking garages. It is worth noting here that the standards side of the NFSA, through the Engineering and Standards (E&S) Committee, also made significant changes to the 2022 edition of NFPA 13.

Stairwells

Stairwells is a popular topic in the EOD program. Stairwells are also known as exit enclosures. When they do not exit directly outside, the horizontal connection (that appears to be a corridor) to the outdoors is called an exit passageway. Many EOD questions in exit enclosures and exit passageways surround the issue of penetrating the enclosure/passageway wall/ceilings. The IBC permits the combined or standalone standpipe and fire sprinkler riser in the enclosure/passageway to serve the floor(s), however, the IBC prohibits when the cross main or branchlines re-entering the enclosure/passageway as a shortcut to gain access to the other side.

Another frequent issue in EOD is the combined or standalone standpipe and sprinkler riser placement on landings. The codes, including the codes that cover the Americans with Disabilities Act (ADA), limit how far the vertical pipe and attached hose connection can encroach in the circulation path. The EOD answers the minimum stair width, typically 44 inches, arcs around landings, and where the vertical pipe (standpipe/riser) is outside the minimum width arc, then generally the placement is compliant.

Here is an older article that helps describe these not-so-well known clearances for the fire sprinkler industry. See the July/August 2010 issue of SQ (Sprinkler Quarterly) titled Clearances for Sprinkler Installation).

Water Supplies

EOD questions from members regarding water supplies are typically about fire flow, and fire sprinkler adjustments. Both the IFC and NFPA 1 provide reductions in fire flow where the building(s) served are fully sprinklered. Some questions also relate to the wider community and the ongoing risk reduction practices, such as in places with a wildland urban interface code (WUI). Water supply questions also relate to the IBC/IFC water supply flow testing, secondary water supplies for buildings in seismic design areas (C, D,E,F), and redundant water supplies for super high-rise buildings.

NFSA action in model codes has seen an increase in proposals to protect or dedicate water supplies for WUI areas, and modify and increase the use of fire flow and fire hydrant sprinkler tradeoffs. NFSA made great changes in the super high-rise water supply and redundancy requirements coming up in the 2024 edition of the IBC.

Resources

Want a collection of the Best of EOD? See NFSA's very popular EOD Handbooks that feature the best questions and answers from 2004 to 2020. Go to www.nfsa.org/eodhandbook Lastly, the NFSA has several SMEs who work to the benefit of the fire sprinkler industry on over 250 codes and standards technical committees. They serve as the SMEs for the EOD program and process over 1,500 EODs annually. Lastly, how can we serve you:

Have a question for the EOD?
Go to <https://member.nfsa.org/My-Account/My-EOD>

Have an idea for a code change?
Go <https://bit.ly/3SakncJ>



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by Vickie Pritchett,
Vice President of Advocacy and Outreach

2022 – A Banner Year for NFSA Accomplishments

Well, the 2022 Conference was not meant to be, but I must say that I am super proud of Team NFSA for the swift and efficient “pivot” that took our conference virtual considering Hurricane Ian wreaking havoc on Florida. Ian greatly impacted areas just an hour south of Sheraton Sand Key, and our hearts and prayers are with those affected by the storm.

As a result of this cancellation, we are rolling both our Class of 2020 and Class of 2021 award recipients to our May 3-6, 2023 conference in Austin, TX, and what an awesome two classes they are! As a recap, here’s our honorees:

2020 Golden Sprinkler Award: **Larry Thau**

2021 Golden Sprinkler Award: **Ray Fremont, Sr.**

2020 Russell P. Fleming Technical Service Award: **Pete Schwab**

2021 Russell P. Fleming Technical Service Award: **Jeff Shapiro**

2020 Leadership in Public Safety Award: **Jim Ford**

2021 Leadership in Public Safety Award: **Kevin Reinertson**

2020 Hall of Fame Inductees:

Kevin Ortyl, Norm MacDonald, Top Myers, Harold Nothhaft

2021 Hall of Fame Inductees:

Dick Oliver, Tom Deegan, Tom Multer

We have opened nominations for the Class of 2023 awards, that will join these two classes in Austin. To submit nominations, please visit here: www.nfsa.org/your-awards/

As I paused to write this article during one of the busiest seasons of our time as an association engaged and involved in the national fire service arena, I am humbled to think of the accomplishments during the past few months. I believe it’s important for me to share these events and share the momentum that is accumulating for fire- and life-safety in America.

Your Association has been involved, as a planning team member, presenter, facilitator, and at the participant level, in the Truman Fire Forum held in Independence, MO; the NFFF Firefighter Life Safety Summit held in San Antonio, TX; the activities of the Congressional Fire Services Institute National Advisory Committee in Washington, DC; and the U.S. Fire Administrator’s Summit on Fire & Life Safety held at the National Fire Academy in Emmitsburg, MD. The momentum being felt by the back-to-back-to-back sequence of these events is REAL, and our mission “To protect

lives and property from fire through the widespread acceptance of the fire sprinkler concept” is being realized with our engagement in each one in a way we’ve never seen before.

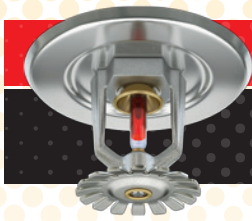
We would be remiss to not thank our Board of Directors members, and our members as a whole, for your support of Team NFSA and all the ways we engage on behalf of you. We truly believe that we are building a stronger industry and a safer world!

On a personal note, I wish you a happy, healthy and prosperous holiday season. Having lost both my mother and father in the past two years, I am reminded that family is so important, and the circle of life reminds us that it’s now time for us to step up and assume roles held for decades by those we love (our parents). Having my first granddaughter arrive this past July, Ellie Ruth Pritchett, has surely reminded me of what matters most. I can’t even begin to put into words what it means being a part of her life. (And yes, she is living in a home protected with fire sprinklers) This gramma wouldn’t have it any other way!

Stay Safe, Until Next Time,

Vickie





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. Please include photos if available!



Delaware

Sprinkler System Extinguishes Condo Balcony Fire

Thanks go to Delaware Fire Sprinkler Coalition Chairman Paul Eichler and to Kent Swarts, Captain / Public Information Officer of the Rehoboth Beach Volunteer Fire Co. for sending in this sprinkler save.

On August 26th, the Rehoboth Beach, DE Volunteer Fire Company responded to a fire alarm at a condominium complex at 2am.

The fire sprinkler system activated and extinguished a fire on a third floor balcony just before it was about to make its way up the side of the building and possibly into the attic area.

The residents were awakened by alarms and evacuated the unit, as did several other residents in the same building. The fire department was able to confirm that the fire was fully extinguished. The Delaware State Fire Marshall's office responded to investigate the cause and origin.

Fire Chief Chuck Snyder said that the alarm and sprinkler system did their job and saved an enormous amount of damage, and probably saved lives.



Sprinkler System Contains Apartment Fire

Thanks go to the Delaware Fire Sprinkler Coalition's Paul Eichler and DE Assistant State Fire Marshal Michael Chionchio for submitting this sprinkler save.

On September 27th, shortly after 4:00 pm, a fire occurred in a Bear, Delaware apartment complex. Firefighters responded to the complex for a fire inside a third-floor apartment. Fire sprinklers inside the apartment had activated, confining the fire to a couch in the living room.

State fire investigators were called to the scene to investigate the origin and cause of the fire. A discarded cigarette ignited the living room couch inside the occupied apartment. There were no reported injuries.

Fire Chief Chuck Snyder said that the alarm and sprinkler system did their job and saved an enormous amount of damage, and probably saved lives.

clients and is more than 60,000 square feet in the main building where the fire occurred. The campus has several buildings.

Upon arrival MCFR found one of the dorm rooms on fire with a single activated fire sprinkler. The cause of the fire was from an electrical outlet, which then began to spread towards the ceiling area. The fire activated a single sprinkler, which contained and mostly extinguished the fire until MCFR arrival. According to the responding crew the fire was contained and approximately 90% out with minor mop up needed.

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Condo Kitchen Fire Controlled by Fire Sprinkler System

Thanks to Advanced Fire Protection Services Inc's Dana Sudheimer for sending us this sprinkler save.

"We had another sprinkler save in Panama City Beach this week. This is the third or fourth fires we've seen in recent weeks due to groceries being placed on stoves. All in condos of course!"



Florida

Single Sprinkler Contains Electrical Fire

Thanks go to Marion County, FL Fire Marshal Ken McCann for sending in this sprinkler save.

Marion County Fire Rescue (MCFR) responded to a large in a patient substance abuse treatment center for a report of a commercial structure fire. The facility houses several hundred

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Single Sprinkler Quells Apartment Kitchen Fire

Thanks go to Shannon Parrish – Advanced Fire Protection Services, Inc. for sending us this sprinkler save.

A fire started from a package that was left on a glass-top stove in a unit of a Panama City Beach, FL apartment building. Apparently, the owners had come in and put the package down on the stove, accidentally bumped one of the knobs, turning the burner on, then left for dinner. One fire sprinkler was activated.

This is the second time in the last few months this has happened in this building. The last time it was an owner that had put a bag of dog food on the stove, bumped a knob and left for work.



Illinois

Single Fire Sprinkler Prevents Large Commercial Fire

Thanks to Philip Zaleski, Executive Director of the Illinois Fire Safety Alliance and O'Fallon, IL Fire Chief Brad White for sending in this sprinkler save!



From Chief White:

On September 18th, O'Fallon FD was dispatched to an alarm at a restaurant/entertainment facility. The business is a couple weeks away from opening.

I arrived and observed a moderate haze of white smoke inside the front windows. I walked around the entire building and then observed water flowing from under the "B" side exterior door and saw a small fire about 10' off the ground as I looked through the window.

I entered with a key from the Knox Box and found an active sprinkler over a basketball game had activated and contained the fire to the game's electronic sign.

We were able to extinguish the remaining fire with two pressurized water cans. Fire and heat damage was limited to just the basketball

game. The building sustained no smoke / soot damage since the fire was contained and not allowed to grow and produce any thick, black smoke. The business will likely still be able to open on their scheduled timeline.

Another property saved because of a working fire alarm and sprinkler system!

Minnesota

Single Fire Sprinkler Extinguishes Hotel Fire

Thanks to Rochester, MN Fire Marshal Chris Ferguson for sending us this sprinkler save. The following is excerpted from a press release issued by the Department.

On September 14th, Rochester Fire Dept. units were dispatched to a report of a structure fire at a Days Inn hotel.

Crews arrived on scene to find smoke coming from a third-story window. The fire alarm was sounding, and evacuation of guests was taking place. A fire was found on the 3rd floor within a hotel room. The fire was extinguished by a single fire sprinkler.

Once it was determined the fire was completely out, the sprinkler system was shut down to limit water damage. The amount of damage is still being estimated but the sprinkler system limited fire damage to just the room of origin.

A fire investigation determined that the fire started on a cooktop range within the fire room. The occupant of the room had left the premise and possibly left a stove burner on.

No injuries occurred on scene.

Automatic fire sprinkler systems aid greatly in limiting damage and extinguishing fires. In this situation, fire damage was limited to the room of origin and smoke damage was minimal for other occupants of the building. This call is a great example of how fire sprinkler systems can save lives and property. Although there is some water damage, the overall safety and cost will be much better than if there had been no automatic sprinkler system.

Texas

Single Sprinkler Contains Porch Fire

Thanks to Merit Ossian, McKinney Fire Dept. Public Information Officer/Education Coordinator for sending in this sprinkler save!

On August 3rd, the McKinney, TX FD responded to a water flow alarm at an apartment complex. When firefighters arrived, the fire was on a back porch. The fire sprinkler activated and contained the fire. Firefighters were able to extinguish the remainder of the fire with a water extinguisher.

No one was home when the fire broke out. Damage was limited to a recliner and an outside wall. We are fortunate the complex had fire sprinklers reducing what could have been a significant loss.



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Fire Sprinklers in Action

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Fire Sprinklers Extinguish Fire That Started Under The Kitchen Sink



The McKinney Fire Department (MFD) responded to the report of a structure fire in the Skyway Villas Apartments located at 2000 Skyline Rd. on Sunday, Sept. 18.

Firefighters arrived to find that the fire had been extinguished by two automatic fire sprinkler heads. The sprinklers kept the flames from spreading beyond the kitchen sink area.

Residents reported hearing two or three explosions that were later traced to two spray paint cans beneath the sink.

Single Sprinkler Extinguishes Church Arson Fire

Thanks go to Coppell, TXFD Deputy Chief Tim Oates for sending in this sprinkler save.

On September 28, 2022, Coppell TX Fire Department was dispatched to a structure fire at a church. The 75,000-sf church is equipped with an automatic fire sprinkler system.

Upon arrival firefighters observed an evacuation of the occupants and heard the exterior fire sprinkler notification device activated. Firefighters discovered an extinguished fire in the locker room portion of the men's restroom. One fire sprinkler extinguished this intentionally set fire.



Washington

Sprinkler System Controls Commercial Structure Fire

Thanks to Jim Stewart and the team at Western States Fire Protection in Redmond, WA for sharing this save!

A weekend fire at a commercial structure in Seattle was controlled by the building's fire sprinkler system. Two sprinklers activated to contain the August 21st fire. From the front of the building, you

would never know there had been a fire—thankfully Western States Fire Protection performs the inspections, service and monitoring for this site, keeping the sprinkler system ready for action!



Wisconsin

Two Sprinkler Saves Within 48 Hours

Thanks to Madison, WI Fire Marshal Ed Ruckriegel for sending us these sprinkler saves!

In less than 48 hours, the Madison, WI Fire Department responded to two fires where fire sprinklers activated and limited damages. One fire was suppressed by the fire sprinkler system. The fire sprinkler system limited damage to the object of origin in the second fire.

Condo Kitchen Fire Quelled by Fire Sprinkler System

On September 15th, Engine 11 dispatched along with an entire structure fire response set of vehicles for a fire reported in the kitchen area of a condo. While enroute to the address location, dispatch relayed information stating that the caller was still on the line and believed that the sprinkler system had extinguished the fire.

Upon arrival, E11 gave a scene size-up and took command. The crew from E11 entered the condo through the open patio door as pointed out by the caller who was awaiting our arrival. The fire was a cooking fire contained to the pan of ignited vegetable oil in a pan on the stove top. When the oil started on fire, the occupant reflexively put water on it, causing it to flare up and smoke more. This caused the fire sprinkler system to activate, which put the fire out prior to the arrival of E11.

There was minimal smoke damage in the kitchen. No damage to countertops or cabinets, and only one item with noticeable damage, which was the vent above the range top.

No civilian or emergency personnel were injured during the event.

Single Sprinkler Contains Machinery Fire

On September 17th, at 7:19 pm, Madison Fire Engine 8 was dispatched to investigate a fire alarm activation at County Materials Corp. Upon arrival, the crew could hear water flowing inside of the building.

Once inside the building, the crew observed a slight haze in the air and water flowing from a mezzanine. Upon further investigation, a piece of machinery was found on a third floor mezzanine, fully involved on fire. The crew requested a full structure fire response.

One fire sprinkler had activated and kept the fire contained, until firefighters extinguished the fire with a pre-connect line from their fire engine. •

We hope you'll choose to support our Advocates' Coalition as we work to create Fire Safe Homes

Working together, we can create resources to educate those who make the decisions regarding community fire protection.

Our goal is to be a go-to resource for community leaders who need a first-person account of the devastating impact fire can have on a community and a family. We can prevent future tragedies, and we believe that our stories help everyone understand in a way that makes a difference. Visit our website for additional resources and information. Order our Media Kit for a complete package of PSAs, media information, talking points, statistics and actual examples of resources used in communities. Your support is greatly appreciated, and as a non-profit 501(c)3 we are now ready to grow our mission and expand our efforts. We hope you'll support our team as an Advocate, Supporter or Corporate member (details on reverse side, along with form).

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Best of EOD: ITM and NFPA 25

by Vince Powers, *Inspection, Testing and Maintenance Specialist*



One of the member services that The National Fire Sprinkler Association (NFSA) provides is the Expert of the Day (EOD) program. In this program, members send in questions regarding codes and standards through the “My Account” “My EOD” portal (<https://member.nfsa.org/My-Account/My-EOD>). These member’s questions are answered by our Experts of the Day with an informal interpretation of what the code or standard states, and in some cases, the reason the code or standard is written the way it is.

The EOD program responds to approximately 1500 inquiries per year. Currently, there are seven staff members of NFSA that respond to these questions, each having a specific specialty or standard. The staffer will respond to all the question within that specialty, as well as some responding to multiple standards questions. This article will highlight some frequent questions regarding NFPA 25, The Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.

Question 1

Is there specific code language for recalled fire sprinklers? Does NFPA 13 or NFPA 25 have any requirements for recalled or voluntary replacement components?

Answer 1

No, recalled or voluntary replacement of sprinklers or other components are not specifically cited in NFPA 25. Section 4.1.5.1 states that all deficiencies and impairments shall be corrected. This section sends the user of the standard to the Annex section for further explanation, and this is where recalled and voluntary replacement sprinklers are noted. The annex cannot be cited and is not enforceable, so technically it is not a deficiency with in NFPA 25. However, not replacing recalled and defective equipment is a direct violation of the International Fire Code (IFC). Section 901.10 of the IFC states that any recalled or voluntary replacement component shall be replaced with listed components. Also note



that in the 2020 edition of NFPA 25 the annex language is moved to the owner’s section (4.1), which still cannot be cited by the inspecting contractor but does change the “should” replace or repair to “shall” replace or repair

Question 2

A building owner has a question regarding who is allowed to perform inspection and testing items required by NFPA.

Answer 2

There is nothing in NFPA 25 that states the ITM requirements must be completed by a contractor or building owner, it only states that the tasks must be completed by a person who is qualified. “Qualified” is defined in NFPA 25 as someone who is competent through training and experience for a specific task and is acceptable to the AHJ. This does not mean that if someone (a contractor or owner) is trained to test dry systems it automatically means that they are qualified to test a fire pump.

In many cases, there are local or state requirements for specific training or certifications to perform these tasks. Essentially, if the person has the proper training to conduct the ITM and it is acceptable to the AHJ, then yes, there is no reason they cannot perform these duties withing the requirements of NFPA 25. However, it would be a good idea to verify these requirements with the state and local AHJ.

Question 3

While performing quarterly inspections at a hospital, the accreditation agency has cited the facility for not performing specific inspections as shown in NFPA 25, Table 5.1.1.2 & 13.1.1.2. What are these tables?

Answer 3

Each of the chapters within NFPA 25, except for chapter 12, has a reference table in the beginning of each chapter. Each table is referenced by the chapter number then 1.1.2, for example, 5.1.1.2 for Chapter 5 and 13.1.1.2 for Chapter 13. These tables are meant to be quick reference tables and are not to be used as the rule. In the example provided, using Table 13.1.1.2 the inspection of control valves, the table states that control valves shall be inspected weekly.

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The next item states that control valves with locks and electronic supervision shall be inspected monthly. Once a reference is found in the table, it is always a good practice to verify what the table states aligns to what the referenced section states. In this example, Sections 13.3.2.1 and 13.3.2.1.1 are referenced in the table. The section(s) state that electrically supervised control valves require quarterly inspections in the 2017 edition of NFPA 25. Joint commission still uses the 2011 edition of NFPA 25, which require electrically supervised control valves to be inspected monthly.

The inspection requirements for gauges were cited in several chapters of NFPA 25 until the 2017 edition, where all gauge requirements were moved to chapter 13. The inspection frequency requirements for gauges are different depending on if they are monitoring water or air pressure. These requirements for the 2011 edition can be found in Section 5.2.4.

NFPA 25, 2011

13.3.2.1 All valves shall be inspected weekly.

13.3.2.1.1 Valves secured with locks or supervised in accordance with applicable NFPA standards shall be permitted to be inspected monthly.

5.2.4.1* Gauges on wet pipe sprinkler systems shall be inspected monthly to ensure that they are in good condition and that normal water supply pressure is being maintained.

Question 4

Is there ever a time that a proper sized forward-flow connection needs to be installed?

Answer 4

NFPA 13 does not specifically state a size for the test and only states a means must be provided to flow at a minimum of system demand. Since 1996, NFPA 13 has required a means for conducting the forward flow test and provides an Annex figure showing a bypass around the fire department check with a normally closed control valve. The 2019 edition of NFPA 13 expanded on the text stating that the means must be installed so that the system does not have to be removed from service and now the 2022 edition of NFPA 13 requires a hose valve to be installed for each 250 gallons of system demand. Also note that a means of conducting the forward flow could be utilizing hose valves on the standpipe system if installed.



NFPA 25 has required an annual forward flow test since 1992.

Question 5

What is the intent of code for flowing a manual wet standpipe to meet the requirement of 6.3.1.2 and 6.3.1.2.1? Is it to test the fire department's pumper truck?

Answer 5

The committee statement for the 2014 edition of NFPA 25 to add flow testing of all Class I and III standpipe systems, including manual, back into the standard is to verify unobstructed flow, as well as to ensure that the system is operable during a crisis. In the 2017 edition the requirement to flow all class I and III standpipe systems was changed to require flow testing of only automatic standpipe systems.

Question 6

It is my interpretation that a fire pump must meet all three flow points within 95%, and system demand. If the test is stopped before 150% (property damage or low suction pressure), an engineer can evaluate the results, extrapolate data, and make a judgement. Until then I would consider it a deficiency.

What is NFSA's interpretation?

Answer 6

NFPA 25 does not specifically state that the fire pump test can be stopped due to damage but Section 8.3.3.4 states that if available suction supply is not available to flow at maximum allowable flow, this would include low suction supplies. In accordance with Section 8.3.7.2.3, the pump test results are considered acceptable, provided that each flow point (churn, 100%,150%) is within 95% of the data plate or manufacturer's test curve.

$$Q2 = Q1 \left(\frac{N2}{N1} \right)$$
$$Pn2 = Pn1 \left(\frac{N2}{N1} \right)^2$$

Where:

Q2= Flow through the pump at the second speed (New flow in GPM)
Q1= Flow through the pump at the first speed (GPM from field test)
N2= Second speed (data plate in RPM)
N1= First speed (speed from field test in RPM)
Pn2= Net pressure created by the pump at the second speed (New pressure in PSI)
Pn1= Net pressure created by the pump at the first speed (PSI from field test)

Language was added to the 2017 edition stating, where applicable, speed and velocity pressure adjustments must be made to the net flow data to determine the compliance with Section 8.3.7.1.3.

Question 7

Does Chapter 14 Obstruction Investigation, 14.2.2 state that buildings having multiple wet pipe systems, every other system shall have an internal inspection of piping every five years?

Answer 7

Yes, chapter 14 section 14.2.2 allows for every other wet pipe system to be internally assessed every five years. This only applies

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to wet pipe systems; all other systems are required to have an internal assessment every five years in accordance with Section 14.2.1.

Question 8

For existing antifreeze systems, when the 2020 edition of NFPA 25 is adopted, will the existing antifreeze systems need to be changed to a listed antifreeze or can the existing antifreeze be maintained?

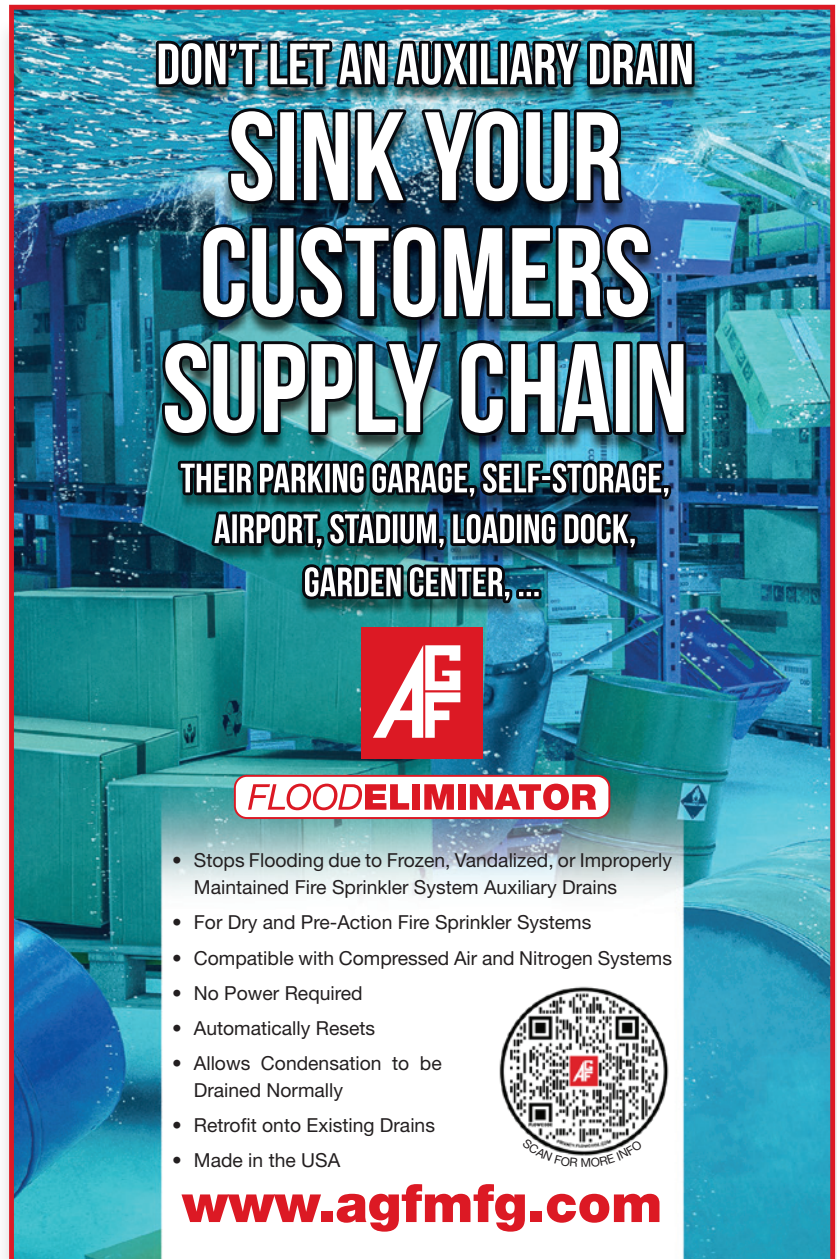
Answer 8

As of now, any existing antifreeze solution must be replaced with a listed antifreeze by September 30, 2022, or the system must be changed to a different type of system such as a dry pipe system. Also note that the existing antifreeze must meet the current requirements found in Section 5.3.4 requiring concentrations equal to 30% glycol or 38% glycerine.

Additionally, the 2023 edition of NFPA 25, which is now available on NFPA's website and will be available in print October 14, 2022, will allow existing antifreeze to remain in service. Previous editions will allow for concentrations of antifreeze up to 50% provided a deterministic risk analysis is completed. The 2023 will not allow this higher concentration and is limited to 30% glycol and 38% glycerine.


As a member of The National Fire Sprinkler Association, the EOD program is a great resource for you to use. The NFSA also sells a hard back copy of the most frequent questions for all water-based standards and code questions dating back to 2004. The books can be purchased by in our NFSA online store.

If you have questions and need clarification or an informal interpretation of the code or standard you can submit your question through the membership website by logging into your account, scroll to the bottom of the webpage and click on EOD. From there just click on "ask a new question" and follow the prompts to submit your question. The average response time for answers is one business day. •




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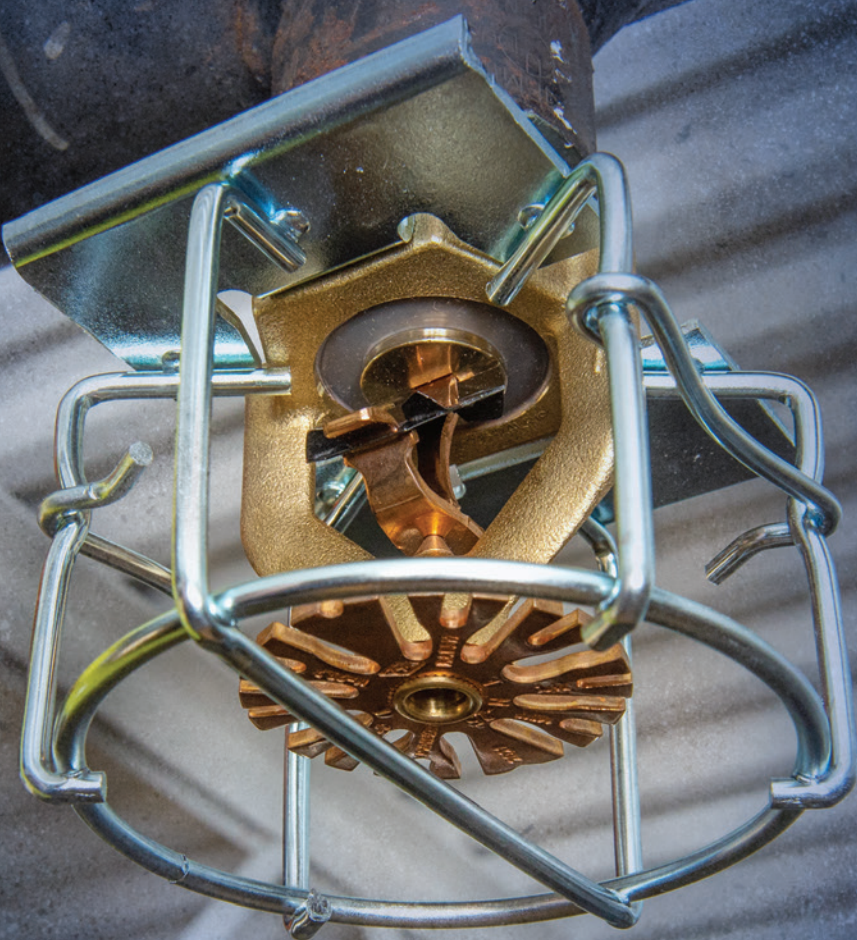


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NFSA Participates in U.S. Fire Administrator's Summit on Fire Prevention and Control

The U.S. Fire Administration (USFA), which is located within the Federal Emergency Management Agency (FEMA), in partnership with the National Fallen Firefighters Foundation (NFFF), hosted the **U.S. Fire Administrator's Summit on Fire Prevention and Control: State of Science**. NFSA was honored to participate and wanted to make sure that we documented this historic event, and all the things that led up to it.

The Summit welcomed President Joe Biden on Tuesday afternoon for a livestream address from the White House.



The Summit marked the 75th Anniversary of the 1947 President Truman Conference on Fire Prevention and Control that launched the America Burning Report and established the USFA. Many of the outcomes from the original Truman Conference hold true today. For example, as outlined in the original Truman Conference Proceedings Report:

The Nation's fire problem is exacerbated by (A) the indifference with which some Americans confront the subject; (B) the Nation's failure to undertake enough research and development into fire and fire-related problems; (C) the scarcity of reliable data and information; (D) the fact that designers and purchasers of buildings and products generally give insufficient attention to fire safety; (E) the fact that many communities lack adequate building and fire prevention codes.

"In 2022, the climate crisis fuels more frequent, destructive, and deadly wildfire. In addition to the growing burdens of wildfire, the demands on our nation's local fire departments continue to increase, further exacerbating daily fire impacts on all our communities. Thus far in 2022, fires have killed more than 1600 people nationwide. Additionally, firefighters pay a high price with 71 firefighters killed on duty so far this year," said USFA Fire Administrator **Dr. Lori Moore-Merrell**.

"This event was a once in a lifetime opportunity for us to join with other national fire service organizations and develop a strategy for fire prevention," added NFSA President **Shane Ray**. "What a humbling chance to offer input on relevant topics that have been identified as priorities, of course fire sprinklers are part of that within codes and standards."

NFSA Vice President of Advocacy and Outreach **Vickie Pritchett**

also addressed the Summit during the "State of Science" portion. She echoed President Ray's comments regarding the honor of being part and of having the chance to continue work within task groups as the action plans are developed for the future.

NFSA was involved back in 2019, when we joined with the NFFF and the Harry S. Truman Little White House to participate in the 17th Annual Truman Legacy Symposium, which focused on the role President Truman played in Fire & Life Safety.

"The idea of a summit came from the Legacy Sympo-





sium, and it's so exciting to see this dream become reality," added NFSA Vice President of Advocacy & Outreach Vickie Pritchett. "President Truman's vision is alive and well 75 years later, and the best part is we now have actions outlined and plans made to address the priorities identified. I sure wouldn't bet against this group of leaders, it's time to execute and the time is now!"



The first-of-its-kind livestreaming event from the National Emergency Training Center in Emmitsburg, Maryland, the U.S. Fire Administrator's Summit on Fire Prevention and Control: State of Science featured presentations from the country's most prominent fire service leaders and researchers. The livestream event was for reporters, the public, the fire service, and local, state, and national policy makers who wanted a better understanding of the challenges and recommended solutions to the critical fire problem in America.

The first two speakers for the State of Science were Philadelphia Fire Department Commissioner **Adam Thiel** and the City of New York Fire Department's Acting Chief of Training

Frank Leeb. Both cities began 2022 with structure fires that killed 17 and 12 people, respectively. They discussed the impact of those fires on their communities and fire departments, and the stage was set for why all of us need to be focused on the fire problems faced in communities across America.

Topics such as the risks associated with the evolution of high-risk structures like lithium-ion energy storage facilities and massive shipping warehouses with robotic technology were discussed. The livestream event also covered the training that structural firefighters need to respond to the new hazards associated with wildfires in the urban interface. It highlighted the recruitment and retention challenges faced by fire departments across the nation. Nationally renowned researchers discussed the impact of the growing number and intensity of fires on the physical and mental health of firefighters including the prevalence of cancer and suicide among the ranks. NFSA President **Shane Ray** focused on the importance of codes and standards, and the key role they can play in building fire safe communities that support a positive quality of life for Americans. •



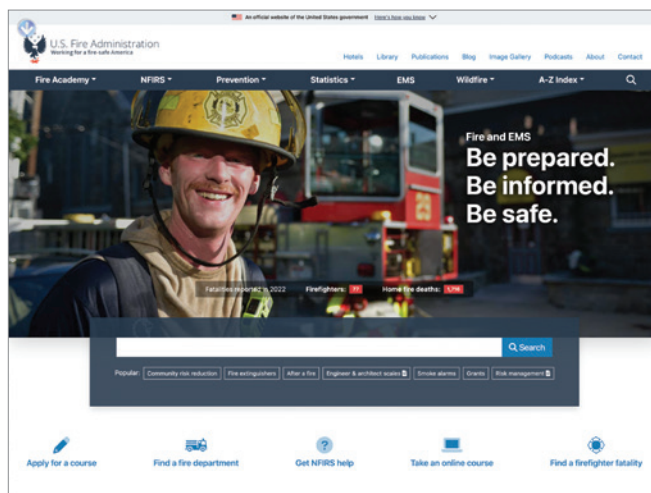
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“President Truman’s vision is alive and well 75 years later, and the best part is we now have actions outlined and plans made to address the priorities identified.”

STATE OF SCIENCE SPEAKERS INCLUDED:

- **Dr. Jeff Burgess**, University of Arizona Mel and Enid Zuckerman College of Public Health
- **Chief John S. Butler**, Fairfax County (VA) Fire and Rescue Department
- **Dr. Kenneth Fent**, National Institute for Occupational Safety and Health
- **Karl Fippinger**, International Code Council
- **Chief Brita Horn**, Rock Creek (CO) Volunteer Fire Department
- **Dr. Sara Jahnke**, Center for Fire, Rescue & EMS Health Research
- **Dr. Steve Kerber**, Fire Safety Research Institute
- **Deputy Assistant Chief Frank Leeb**, City of New York Fire Department
- **Dr. Susan M. Moore**, National Institute for Occupational Safety and Health
- **Patrick Morrison**, International Association of Fire Fighters
- **Chief John H. Oates**, International Public Safety Data Institute
- **Chief Shane Ray**, National Fire Sprinkler Association
- **Dr. Denise L. Smith**, Health and Human Physiological Sciences, Skidmore College
- **Michele Steinberg**, National Fire Protection Association
- **Rick Swan**, International Association of Fire Fighters
- **Commissioner Adam K. Thiel**, City of Philadelphia Fire Department
- **NFPA Vice President Lorraine Carli**
- **NFSA Vice President Vickie Pritchett**
- **USFA Deputy Administrator Tonya Hoover**

*The Summit was recorded and is available at:
<https://www.firehero.org/usfa-summit/>*



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Best of EOD: NFPA 13 -Installation Rules

by Roland Asp, *Manager of Codes and Standards*



The NFSA processes over 1,200 informal interpretations a year for its members. This is done through the Expert of the Day (EOD) program, where members ask the industry’s top fire sprinkler subject matter experts questions on fire sprinkler related rules, codes, and standards.

NFSA has been offering the EOD service to our members since 2004, and it has proven to be one of the most valuable and popular of the many benefits of NFSA membership. Members submit real-world questions regarding water-based fire protection systems and receive an accurate and timely answer to their question. These responses have saved our members time and money and have helped ensure that the fire protection systems meet the requirements of the applicable codes and standards.

NFSA Subject Matter Experts (SME) include Professional Engineers (PE), Certified Engineering Technicians (CET), Certified Building Officials (CBO), and Certified Fire Protection Specialists (CFPS). Several SMEs have high-level NICET certifications for the Inspection and Testing of Water-Based Systems and Water-Based System Layout. Our SMEs are also members of many NFPA and ICC committees, so they have additional knowledge beyond the wording of the code or standard—and know why it was implemented. This insight can prove very valuable when navigating the sometime confusing matrix of codes, standards, and other resources that make up the fire sprinkler industry.

The Data of EOD

NFSA uses the data from EOD for more than just answering an individual question. NFSA also analyzes the incoming questions to see if there are common themes which may indicate that additional work needs to be done on a particular topic. For example, if a specific question is being asked over and over, perhaps NFPA 13 (or the applicable code or standard) needs to be clarified or additional research may be warranted. The data contained in the EOD program is a powerful tool that NFSA is using to make our industry and the relevant codes and standards even more effective. Many of the changes to the NFPA standards originated as a question to the EOD program.

The collection and analysis of the data from the EOD program took a great leap forward in July 2020 when NFSA rolled out our new EOD process. Requests for an informal technical interpretation to the NFSA EOD program have traditionally been by fax, phone, or email. Starting on July 15, 2020, the NFSA

transferred the EOD process to a new association management system (AMS). This system allows the member to easily submit questions, track the progress, and view their EOD cases. For those who are not familiar with this “new process,” Technotes Issue #442 reviews this process. This Technote can be accessed in the community library of the NFSA website.

This new process not only improved the member experience with EOD, it also greatly improved NFSA’s ability to track the topics and to drill down to specific sections of the codes and standards. This is valuable information that NFSA has and will continue to use to clarify the related codes and standards.

As an example, in the first 6 months or so of 2022, the top ten topics addressed by EOD regarding NFPA 13 (all edition years) were as follows:

TOPIC	COUNT OF TOPIC
Obstructions	122
Concealed Spaces.	49
Commodity Classification	47
Hazard and Occupancy Classification	38
Design Area	32
Exterior Projections	25
Hangers and Support.	24
Seismic Protection	22
Fire Department Connections (FDC)	22
ESFR Obstructions	20
ESFR Sprinkler Protection.	20
Sidewall Sprinklers.	20

As I am a principal member of NFPA 13 Installation committee representing the members of NFSA, this article will concentrate on installation issues. As it pertains to the installation committee, the data shows that obstructions, concealed spaces, and exterior projections generated most questions. This indicates that these topics may need to be clarified in NFPA 13.

EOD Data in Action

In fact, this data has already been used to improve the standards, and each of these topics have been addressed in the 2022 edition of

continued on page 37

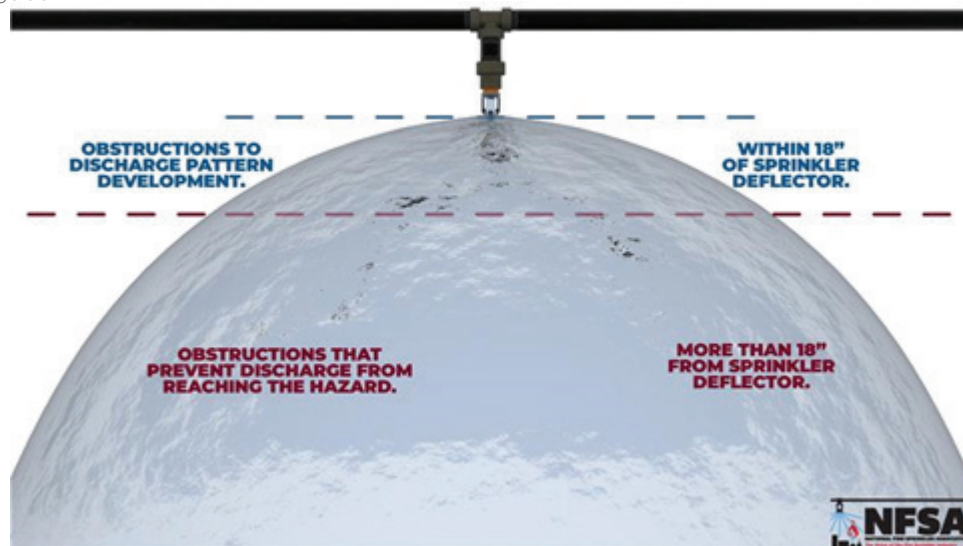


Figure 1

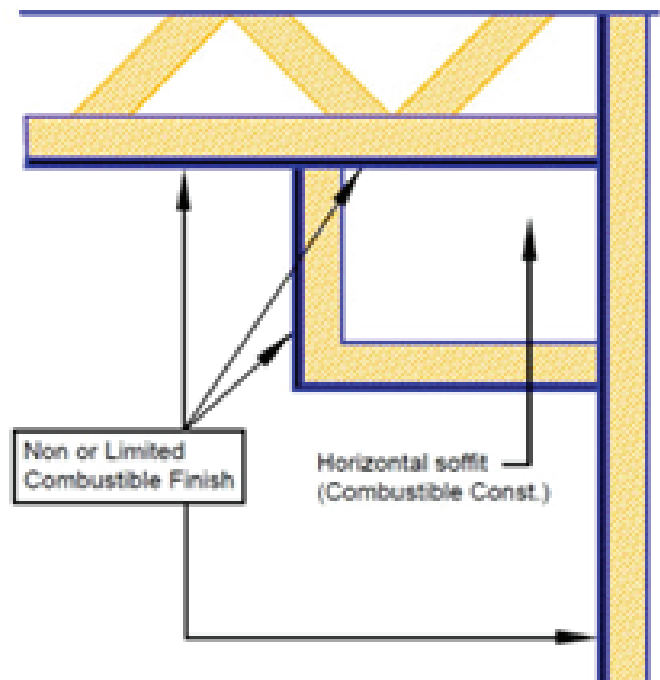
NFPA 13 and will be further clarified in the upcoming 2025 edition of NFPA 13:

Obstructions: The obstruction rules within NFPA 13 were substantially revised in the 2022 edition in order to clarify and expand upon this often-confusing topic. The obstruction tables throughout the standard have been reformatted to reduce confusion and new obstruction rules were added to the standards to deal with situations that were not addressed in earlier editions. For example, new rules for Suspended or Floor-Mounted Vertical Obstructions in Ordinary Hazard Occupancies was developed. Previous editions of NFPA 13 dealt with this subject in light hazard occupancies only. As shown by the number of EOD questions on this subject, this new rule adds much needed clarification to the standard.

(See figure 1 above)

Concealed Spaces: The data shows the concealed spaces are another topic that is in need of clarification. Recent additions to the 2022 edition of NFPA 13 have clarified this sometimes-confusing topic. For example, based upon actual EOD questions, a new section was added to NFPA 13 (9.2.1.2.2) to clarify that non-combustible or limited combustible spaces with non-fueled fired equipment (such as vertical terminal air conditioner or VTAC units) with an access panel for maintenance is simply a type of concealed space and sprinkler protection is not required. Another example is soffits of combustible construction. Section 9.2.1.11 in the 2022 edition of NFPA 13 indicates that soffits of combustible construction will not require sprinkler protection where they are below noncombustible or limited combustible ceilings and are separated into volumes not exceeded 160 cubic feet. The annex to this section states that the interior of the soffit may contain ductwork, electrical components and plumbing and mechanical equipment. Further, it states that it is not the intent to require dampers the ductwork.

Exterior Projections: Based upon the number of EOD questions on exterior projections, it was clear that this topic was another confusion point in NFPA 13. To help clarify the requirements for this topic, a new definition was added to the 2022 edition of NFPA 13 that defines exterior definition for the first time. Section 3.3.73 defines an exterior projection as an extension beyond an exterior wall that can collect heat below. This definition (and other changes to the exterior projection rules) will help clarify where and when sprinkler projection is required in these building features. It should also be noted that the balcony rules from NFPA 13R were brought into NFPA 13. For the first time, balconies (with a roof above) serving dwelling units in a Type V building protected with a NFPA 13 system will require sprinkler protection.



continued from page 37

EOD Data for the Next Edition of NFPA 13:

NFSA continues to use the input generated from our members through the EOD program and other means to keep NFPA 13 and other applicable codes and standards up to date and applicable to today's fire environment.

For the upcoming 2025 edition of NFPA 13, NFSA's Engineering and Standards Committee has submitted numerous Public Inputs to continue to improve the NFPA Installation standards. Some of the topics to be addressed are:

Control Mode Specific Application Sprinkler (CMSA)

Obstruction Rules: The obstruction rules for Control Mode Specific Application Sprinklers (CMSA) are woefully out of date and need to be updated. These rules were developed in the 1980s based upon upright large drop sprinklers. CMSA sprinklers have been updated but the rules found in NFPA 13 Chapter 13 have not. The NFSA E&S Committee has submitted a Public Input to update the CMSA Obstruction Rules based upon the ESFR obstruction rules. This concept was accepted at the recent first draft meeting although this has not been balloted yet.

Sprinklers in Stairwells: The rules for sprinklers in stairwells are intended for stairs in shafts however as this section is titled Stairways, many misinterpret this section to apply to open stairs (not in shafts). To clarify this concept, The NFSA E&S committee submitted an input to simply change the title of section 9.3.4 from Stairwells to Stair Shafts. This title change will clarify this concept. This concept was accepted at the recent first draft meeting although this has not been balloted yet.

Sprinklers under Obstructions: NFPA 13 has long stated that sprinklers under obstructions do not need to be included in the hydraulic calculations where the pipe sizing and pattern matches that of the ceiling sprinkler system. The NFSA E&S Committee submitted a global input to provide guidance on how to hydraulically calculate sprinklers under obstructions that do not follow the same sizing pattern as the overhead system. This concept was accepted at the recent first draft meeting (along with additional guidance for sprinkler under obstructions) although this has not been balloted yet.

Dry System Sizing Guidelines: The section on dry pipe systems (Section 8.2 of the 2022 edition of NFPA 13) caused a lot of confusion and is in need of a reorganization. The NFSA E&S Committee submitted a revised version of this section that flows much better and is in a more logical sequence. This concept was accepted at the recent first draft meeting although this has not been balloted yet.

The above represents a few examples of how the questions submitted to NFSA's EOD program help make the relevant NFPA standards better and to continue to provide unsurpassed life and property protection. Member questions help ensure that the fire sprinkler industry is part of this process.

Best of EOD TechTuesdays:

Starting in July 2022, NFSA has dedicating six months of TechTuesday webinars to a series of "best of" topics and will highlight some of the best and interesting questions posed to the EOD program. To support the TechTuesday webinars, the 2nd TechNotes of the month was dedicated to this subject.

July: NFPA 13 – Installation Rules

August: NFPA 13 – Discharge Rules

September: NFPA 14 – Standpipes

October: Model Codes – ICC and NFPA

November: NFPA 25 – ITM

December: NFPA 20 – Fire Pumps

NFSA will continue answering member's EOD questions and use the information to help improve the applicable codes and standards.

The EOD service is not only a member benefit but is also a benefit to the entire fire sprinkler industry.♦



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One More Starfish Saved



by Retired Fire Chief Keith Brower

Despite the refusal of most states and localities to adopt codes for residential sprinklers in one- and two-family homes, the power of education and understanding cannot be overstated.

Recently my brother-in-law and his family built a new home in a rural Virginia county. The closest fire department is eight miles away. The last mile or so requires travel up a steep and narrow gravel driveway. Under optimum conditions, travel up the grade in a modern Class A pumper would require no less than four or five minutes. If compounded by snow or freezing rain, there is no telling how much time fire department arrival would require. The home is not served by municipal water, thus sustained firefighting water supply would be challenged by many factors.

Well, before construction began, I started asking my brother-in-law how he proposed to protect his family from fire. Following his thorough review of materials from the NFSA, the Home Fire Sprinkler Coalition, NFPA and other sources, he agreed to pursue sprinklering the home. The NFPA compliant 13D system was engineered and reviewed by the local Fire Marshal, installed and inspected per code.

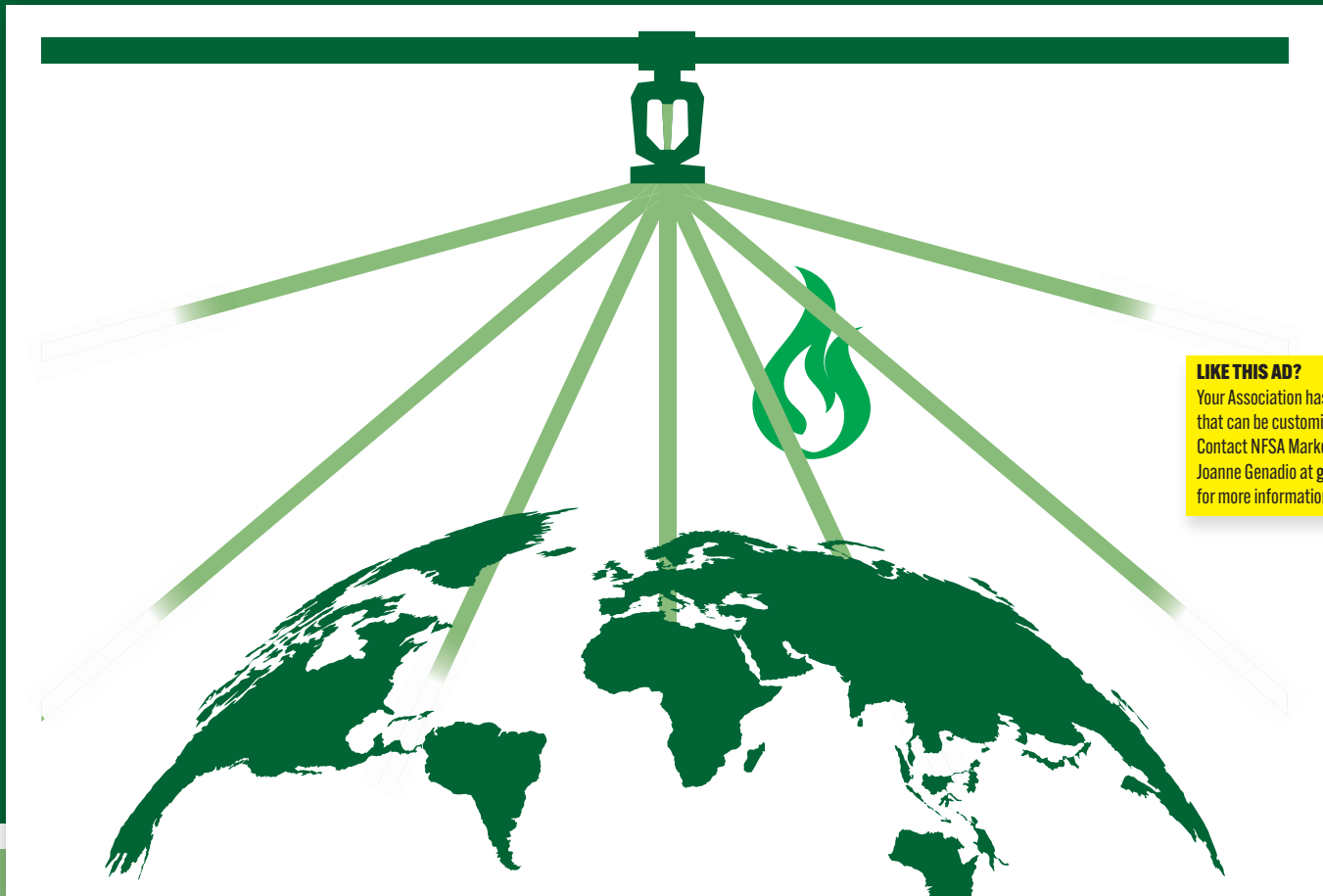
At approximately 3,000 square feet, the home is now occupied. This includes an unfinished basement which could add more living space if needed. The fire sprinkler system is supplied by a 300-gallon vertical tank and a two-horsepower fire pump. The cost of the system was approximately \$7,000.00 or roughly \$2.30 per square foot.

There are several “take aways” for firefighters and allied professionals for these “precious victories”:

- **Education.** Continue to speak out against the myths that hold the industry back. Use facts and resources which show the science of fire and how fire sprinklers work.
- **Advocacy.** As a professional, you are the citizen advocate. The public trusts the fire service in their time of greatest crisis. We can't prevent every fire, but we can speak to the remedy which will lessen the loss.
- **Passion.** As with advocacy, each installation is a victory. Remember The Starfish Story. (*see QR code at top!*) Against tremendous odds, one by one we can save lives.
- Commit to the messages. *“Sprinklers Buy Time, Time Buys Life.” “Things Dry Out, But They Don't Unburn.” “Fire is Everyone's Fight.”*
- And, especially for firefighters, fire sprinklers reduce the risk of being caught in a flashover. Early suppression also reduces the exposure to fire's noxious gases. *“Everyone Goes Home”*•



Fire Sprinklers are Green – Saving Property, Lives AND the Environment!



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Joanne Genadio at genadio@nfsa.org
for more information.

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*according to FM Global Environmental Impact of Automatic Fire Sprinklers Report



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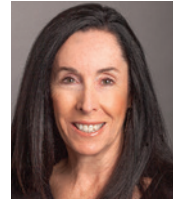
Fire is fast. Fire sprinklers are faster.



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Tribute to Texas Assistant State Fire Marshal Ernest McCloud

by Cindy Giedraitis, *NFSA South Central Regional Manager*



Chief Ernest “Ernie” McCloud served as the Assistant State Fire Marshal for the Texas State Fire Marshal’s Office since 1998. Prior to the SFMO, Chief McCloud spent ten years in the fire extinguisher and alarm industry certified as a fire alarm and extinguisher technician. Chief McCloud retired from the Texas State Fire Marshal’s Office effective August 31, 2022.

As Assistant State Fire Marshal, Chief McCloud supervised the Fire Protection Licensing Division including fire sprinkler, fire alarm, fire extinguishers and fireworks professional licensing, the Fire Safety Inspections Program, Fire Safe Cigarette Compliance, OPR, TEXFERS, Fire Investigations and the Forensic Arson Laboratory. He is certified as a Texas Peace Officer, Texas Commission on Fire Protection Inspector and ACFE Fraud Examiner. In 2013, Chief McCloud was awarded the Roscoe Gibson Award from the Texas Fire Marshals’ Association for outstanding service in fire prevention.

While serving as Assistant State Fire Marshal, Chief McCloud created several new programs including a brand-new educational series entitled Fire Marshal Discussion Meetings – Open Forums for local and state fire service agencies which were offered to all fire protection professionals around the state of Texas. Fire Protection licensees, local and State AHJ’s around Texas major metropolitan areas all attended and participated in this series for many years. Below are just a few words of thanks to Chief McCloud!

Appreciation from Texas Licensees and Fire Protection Partners

“Fire Marshal McCloud is/has always been a GREAT advocate for the fire sprinkler industry. He has built a great team in the State Fire Marshal’s office that will be his legacy. Thank you, Mr. McCloud!”

–Ryan Kiefer, Texas Residential Manager, Western States Fire Protection, Austin & FSCATX Central Texas Director

“Chief McCloud was committed to the fire- and life-safety industry and supported the Texas Fire Alarm Association with his attendance and communication at our Association meetings. He was instrumental with communicating the up-to-date information from the State Fire Marshal’s office and is always accessible to provide insight and guidance to the TFAA membership. Chief McCloud is considered a colleague and partner with the life safety industry.”

–Paul Mitchell, Regional Sales Manager – South Central Region, Eaton

“I had the good fortune to travel throughout Texas and present with Chief McCloud for many years. I learned what a tireless advocate for fire safety – and doing the right thing – he undoubtedly was. Texas is a safer place because of him. He can certainly go into his retirement knowing he made a difference! Best of luck my friend.”

–Jason Webb, Director of Industry Affairs, Potter Electric Signal

“Just wanted to drop a line and thank you for all you have done serving the citizens of Texas. You will never know how many or how much, but your work and efforts through the years have contributed to save many, many lives and properties. I so much appreciate your accessibility and help to all of us in the industry. We could not have asked for a better partner in the fight for fire safety. I hope your retirement years are full of enjoyment of your family, friends, hobbies, and sleeping-in every now and then!”

–John Pecot, Design Manager, JCI Industrial Fire Solutions, Johnson Controls

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“Chief McCloud, thank you for being an amazing public servant. You always responded to our phone calls, emails and request for information in a super timely and comprehensive manner. We didn’t always want to hear what you told us; but you took the time to discuss and make most every question a two-way process. But more than that; you made our jobs in fire protection fun, friendly, and always a great learning experience.”

–Cindy Giedraitis, NFSA

CHIEF McCLOUD AND HIS TEAM



TXSFMO - Shown here are Captain David Rives, Kelley Stalder P.E., Lt. Chris Kress, and Assistant State Fire Marshal Ernest McCloud at the Frank Fickett Scout Training Center in Austin, Texas.



Fire Sprinkler Chat with The Houston Area AHJ’s – City of Houston Chief Inspector John Hoffard, Assistant Chief Richard Galvan and Senior Inspector Sam Mandola, The Villages Fire Marshal Rusty Kattner, Harris County Fire Marshal Laurie Christensen, Ernest McCloud, Fort Bend Fire Marshal Mark Flatthouse, Harris County Deputy Fire Marshal Chad Shaw

Mark your calendars!

NORTH AMERICAN FIRE SPRINKLER EXPO & NFSA ANNUAL SEMINAR

Our 2023 North American Fire Sprinkler Expo and Annual Seminar will be held May 3-6 at the JW Marriott in Austin, TX! Get ready for great sessions lead by industry experts, a full-scale expo featuring the newest fire sprinkler innovations and our highly awaited Top Tech Competition, live on the expo floor! Check our seminar web page at <https://nfsa.org/seminar/> for the latest up-to-date info! You can't miss this!



Austin



#fastestwater roundup!





The New Media Kit's Here! The New Media Kit's Here!

Some things just stick in your head. For me, it's the great music I got to listen to in the late 70s & 80s (those of you of the same era must agree our music was THE BEST!). I saw Pink Floyd, Led Zeppelin, Santana, Yes, Genesis and many more live in concert. It was the birth of MTV and great music videos, the premiere of the comedy classics Animal House, Ghostbusters and The Blues Brothers. I watched The Miracle on Ice at the Lake Placid Olympics. And, along with all that, a line from The Jerk, starring Steve Martin has rolled around somewhere in my brain since 1979. Those of you that were born while I was sitting in Professor Echtermann's Statistics Class, bear with me! Spending four years in college up in Utica, NY, where the winter lasts ten months out of the year, I tended to be easily amused. I can't be the only one that remembers the delight Steve's character, Navin Johnson, took when the new phonebooks were delivered, "The new phonebook's here! The new phonebook's here!" That's kind of how I feel when the designer finally sends me a copy of the new media kit.

To me, the kit represents possibilities: members who may decide to advertise for the first time, advertising members that might

decide to try a belly band or postcard insert, a member who's always done print advertising ready to take the dive and try some digital offerings. It also sets a high standard for me. As editor of NFSM, I strive for every issue to be worthy of our advertiser's dollars and our members' interests.

As many of our advertising members already know, I am happy to work within your budget! Tell me how much you'd like to spend, and I'll send you a customized ad plan that will deliver the biggest bang for your buck.

Even if you don't plan to advertise, I'd encourage you to look through the kit. There you'll find our upcoming issue themes, including the Buyer's Guide and Member Takeover issues, which go beyond just advertising opportunities for our members.

SAM and Manufacturer members receive a free listing in our May/June Buyer's Guide issue. I'll be sending out last year's listings to members for updating starting in November. Please watch for my email, as I usually need changes submitted no later than the end of January. If you're a new member who wasn't in last year's guide, I'll be emailing you with a form that you can fill out to ensure your listing appears as you'd like. If I don't receive a response from a new member, only their company name and contact info will appear in the guide. So, don't miss out on this free opportunity to connect with fellow members who are eager to "Buy NFSA."

Remember, it's never too early to start putting submissions together for our Sept/Oct Member Takeover issue! The success of this issue depends on our members. Since its inception, the issue has won the Marcom Gold Award for Excellence every year. The response from our readers has been overwhelming and I am so thankful to all who took the time to contribute. Even though, I continually challenge myself to increase the number of member-submitted articles. I'm hoping '23 premieres the fattest Member Takeover issue ever! You don't have to write like Hemingway to submit! I am happy to edit submitted articles, and I often do. I will return the articles to the authors for final approval. Please consider a submission, and don't wait until the due date! I'm accepting submissions year-round. So, if you have an exciting project, an employee who has done something outstanding, or even a recipe for pumpkin pie that could win a contest, I'd love to add your story to the issue! It would be great if companies would encourage their employees to get in on the action. Who doesn't like to see their name in print?

I look forward to 2023 as a year of prosperity, health, and peace. Wishing you all a wonderful holiday season. Remember, I'll be looking for those submissions...advertising and otherwise! Email me anytime at genadio@nfsa.org.

Joanne

P.S. It's dark and I'm wearing sunglasses.



Team NFSA Thanks All Those Who Made our Virtual Conference a Success!

The following was contributed by NFSA Team Member Michael Wilson

The past two years have no doubt sharpened everyone's last-minute planning skills, and this year's seminar was no exception. With Hurricane Ian looming last week, Team NFSA decided to cancel the in-person portion of its Business and Leadership Conference in Clearwater Beach, Florida. While the team was disappointed to do this, NFSA is in the life-safety business and values the well-being of its members and staff. Our hearts go out to all those affected by Hurricane Ian, and we hope for a speedy recovery effort.

While the in-person portion of the Business and Leadership conference was cancelled, this didn't stop the NFSA from going fully virtual! The team featured several guest speakers who covered a diverse range of business and fire protection topics!

*"We have the answer. Let's just keep spreading the word!"
-Jim Boulanger, NFSA Chairman of the Board*

The virtual conference kicked off with updates from NFSA Chair of the Board Jim Boulanger and President Shane Ray. Both offered updates on the state of the industry and thanked all who attended. After introductions, sessions kicked off!

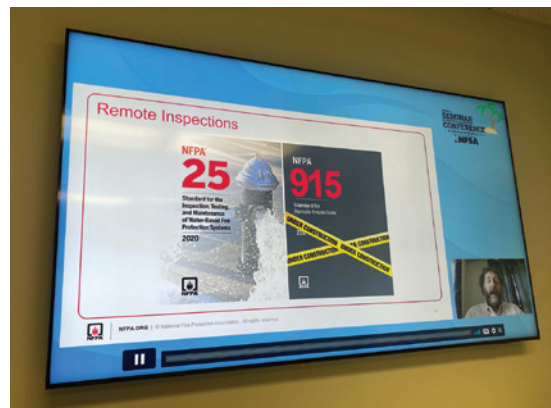
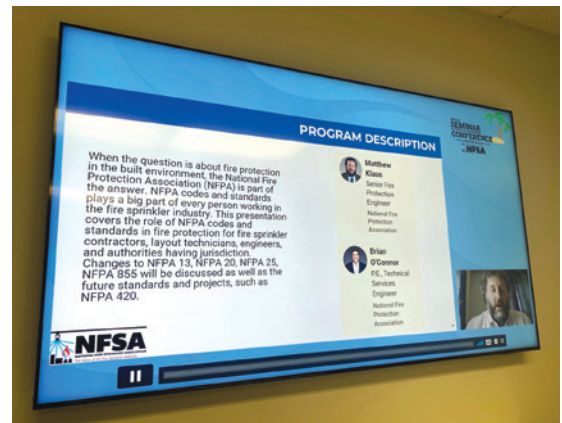
Thursday Sessions – A Focus on Business and Standards

The first day's sessions included updates from Economist Gene Marks and NFPA's Matt Klaus and Brian O'Connor. Gene informed business owners of the resources available for them, as well as best practices for navigating daily operations in a post-COVID world. He also offered keen insight into what to expect from the economy in the coming months.

Matt Klaus and Brian O'Connor covered the role of NFPA codes and standards in fire protection for fire sprinkler contractors, layout technicians, engineers, and AHJs, as well as changes to NFPA 13, NFPA 20, NFPA 25, NFPA 855, and future standards like NFPA 420.

Friday Sessions – A Focus on Inspections and More!

Friday's sessions focused primarily on inspection, testing, and maintenance, with Drew Slocum of Inspect Point covering deficiency management. Drew spoke about the rise of ITM services during the pandemic and how such services have proven to be recession and pandemic resistant over the past two years. Drew offered insight on how contractors can use ITM in their business model.



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Next up was Terry Victor of Johnson Controls who spoke about NFPA 25 and evaluating inspection and test results. Terry also focused on the different ambiguities surrounding NFPA 25 and how contractors can effectively communicate deficiencies to their customers. Terry broke several examples down into whether they were non-critical deficiencies or critical deficiencies.

Rounding out the day's lineup was Jim McHugh of AGF. Jim covered common issues with auxiliary drains on dry fire sprinkler systems and how to minimize risk and expenses with a proactive approach to dry systems.

Join NFSA in May for our North American Fire Sprinkler Expo!

Join the NFSA for its North American Fire Sprinkler Expo in Austin, Texas on May 3-6. Contractors and suppliers from all over North America meet to learn more about the state of the industry by connecting with thought leaders and subject matter experts.

Our expo booths sell out quickly, so be sure to check back regularly for more information. To learn more about the National Fire Sprinkler Association's seminars and events, and how you can earn CEUs by attending, visit our seminar and events pages to learn more!

NFSA Teams Up with Ryan Fire Protection to Educate Students About Fire Sprinkler Industry Jobs

Team NFSA and member Ryan Fire Protection were honored to represent the fire sprinkler industry at Eastern Kentucky University in October. So many great job opportunities in our industry, so many great candidates at ECU!



Did you know NFSA's LinkedIn Group has more than 11,000+ members? It's a great place to showcase your products and services. **Join today!**



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Team NFSA at Ferguson Fire and Fabrication Outing

On August 11th, Team NFSA took part in the Ferguson outing. The following is from President Ray:

Always great to be with our members in the field, especially when we can burn one of our side-by-side burn demonstration units. This is one that is owned and operated by the Ohio State Fire Marshal's Office and the Ohio State Fire Academy.

NFSA Membership Committee Chair Bob Knose welcomed all the vendors to the event and thanked NFSA and the Ohio SFMO for being there with the fire sprinkler demonstration unit. NFSA's

Director of Membership and Chapter Relations greeted all the attendees and invited them to the Upcoming annual seminar in Clearwater as well as the North American Fire Sprinkler Expo in May of 2023 in Austin, Texas.

The burn was a big success and a special thanks to our Field Service Coordinator, Ron Ritchey, who set up all the logistics to pull off the event. NFSA also had our Brian Biggs, Abbie Gunnells, and Marty Blackwell. Division Chief Ken Klouda with the Ohio SFMO and team did a great job with the burn. •



CHAPTERS IN ACTION

Connecticut *The Big E!*

The NFSA Connecticut Chapter spent five days educating attendees of The Big E as to the life- and property-saving benefits of fire sprinklers. We were able to perform side-by-side fire sprinkler demos on four of the five days (one day was rained out) to crowds that averaged around 300 in size.



Our information booth was staffed from noon to 5:00 pm each day and our demonstration began promptly at 4:00 pm. Connecticut Governor Ned Lamont even stopped by to learn more about these lifesaving devices! We were joined by the State

Fire Marshal, President of the State Fire Chiefs Association and many other representatives of the Fire Service and Sprinkler Organizations. Thank you to the many stakeholders that made this event a big success! We plan on being back in 2023!

Florida *Joint Legislative Planning Meeting*

On August 1, 2022 the Florida Fire Sprinkler Association along with AFSA FL Chapter, held its annual Legislative Planning Meeting. We were joined by the Florida Fire Marshals Association, Florida Fire Chiefs Association, Florida Alarm Association, State Fire Marshal's Office, NFPA, FFSA Lobbyist and AFSA FL Lobbyist.



The meeting was held at the Hyatt Regency Coconut Point in Bonita Springs. We were honored to have several legislators join us and speak about upcoming elections and the 2023 session.

With over 50 participants, we broke into smaller groups to come up with a top five list of what we want to support in 2023. With open conversations and shared opinions, each group came up with



their top five list. The lists were reviewed and narrowed down to an overall top five. It was a great event, and everyone participated. All associations were actively involved in the planning process.

We encourage you to participate in this event in 2023. It is a way to get involved and to gain greater knowledge of the legislative process.

AIM to Learn

The NFSA July AIM to Learn meetings were in six locations throughout the state. Danny Harrod, Wiginton Fire Systems, presented on the communications between fire sprinklers and alarms at our Tampa, Orlando and Jacksonville meetings. Zarko Ognjenovic, Milton J Wood, presented on Uniform Reporting and 61G changes at our Ft Myers, Miami and Plantation groups. What great interaction with the AHJs and contractor members. The meetings were well attended, engaging and answered many outstanding questions. Make sure to check out August meetings below.

Special thanks to Danny Harrod and Zarko Ognjenovic for giving of your time and making our industry better.

These meetings are highly beneficial to our industry, always educational and great ways to network within the industry. Please watch for future meetings and make a point to come.

Texas Lunch & Learn

The NFSA Texas Chapter hosted a free NFSA Texas Lunch & Learn on Wednesday, October 12, 2022, from 11:30 a.m. – 1:00 p.m. Viking Corporation's Director of Business Development Robert Coonts presented changes to Codes and Standards regarding new approved Foam for warehouses, chemical manufacturing, loading racks, aircraft hangers and more. Over 50 people attended!

NFSA Texas Chapter Board Nominations & Elections 2023 – 2024

The NFSA Texas Chapter Board called for Chapter nominations in September 2022 and finalized the board elections in December

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2022. The Board is made up of 12-15 Texas Industry Members. They are ALL committed to making this industry better. They work with other Associations, volunteer for committees, learn and work on the legislative front and have a passion for life safety. Requirements include the following:

- Board members are member contractors, suppliers, manufacturers or professionals of NFSA. Only 1 board member per company
- Four board meetings per year across the state or virtually.
- Willing to be a part of a committee - ITM, Legislative, Codes & Standards, Public Education, Future Leaders, Leadership & Education
- A desire to show up and make a difference
- 2023-2024 Nomination Slate for the NFSA Texas Chapter Board

Executive Officers

Chair **Tate Hitzeman**, *Potter Electric*

Vice Chair **Conor Kauffman**, *Kauffman Company*

Treasurer **Daniel Merritt**, *Reliable Automatic Sprinkler Co.*

Secretary **David Welcher**, *Automatic Sprinkler of Texas*

Past Chair **John Pecot**, *Johnson Control, Inc.*

Officers at Large

Aaron Wilson, *Ferguson Fire & Fabrication*

Brad Anderson, *Northstar Fire Protection of Texas Houston*

Dale Payne, *Northstar Fire Protection of Texas Dallas*

Mike Showalter, *TD Industries*

Danna Wells, *Viking SupplyNet*

Contact cindy@nfsa.org/979-324-8934 for more information.

Minnesota Burn Aid Charity Golf Classic



On Monday, September 12, the NFSA Minnesota Chapter and the Minnesota State Fire Marshal's office once again joined forces with the Burn Aid Foundation to host the 26th annual Burn Aid Charity Golf Classic. This annual event raises money to support the equipment and programs for the Regions Hospital Burn Center. Over the last 25 years, the event has raised more than \$1.3 million for the Burn Center. This year's event featured glorious weather, 117 golfers, and a side-by-side demonstration presented by NFSA President Shane Ray and the Minnesota Chapter of NFSA. Shane was also able to speak with the White Bear Lake fire crew about tactical considerations at sprinkler protected building fires. Any time spent with Shane is a learning experience for firefighters! This year's Burn Aid event raised more than \$45,000 for the Burn Center, and a final tally of the donations and a formal presentation will be made to Burn Aid staff in November. •



SPRINKLERING OF NEWS

■ SFPE Members Appointed as Liaisons to European Committee for Standardization

The Society of Fire Protection Engineers (SFPE) announces the appointment of four SFPE members as liaisons to the European Committee for Standardization (CEN). Axel Mossberg, PhD, PMSFPE; Gabriele Vigne, PhD, PMSFPE; James Bassett, PMSFPE; and Mohammad Heidari, PhD, will share their insight and facilitate communication between CEN and SFPE.

Axel Mossberg, PhD, PMSFPE; Research Director and Senior Fire Safety Consultant at Bengt Dahlgren Brand & Risk in Sweden – Axel is a member of the SFPE Committee on Performance-Based Design and has been appointed to serve as an SFPE liaison member on the CEN TC 127 Fire Safety Engineering.

Gabriele Vigne, PhD, PMSFPE; Director, Advanced Technology, JVVA in Spain – Gabriele is a member of the SFPE Subcommittee for Standards Oversight and the Computer Model Selection Task Group and has been appointed to serve as an SFPE liaison member on the CEN TC 156 Smoke Control.

James Bassett, PMSFPE; Projektleiter Brandschutz, SafeT Swiss AG in Switzerland – James has been appointed to serve as an SFPE liaison member on the CEN TC 191 Fixed Fire Suppression.

Mohammad Heidari, PhD, Fire Safety Engineer, CERIB in France – Mohammad is a member of the SFPE Fire Exposures Committee and has been appointed to serve as an SFPE liaison member on the CEN TC 250 Eurocodes.

Visit sfpe.org to learn more about the Society, SFPE Europe, SFPE's participation in standardization efforts, and the Society's work as a Standards Developing Organization.

■ Zurn Elkay Water Solutions Launches New Zurn Wilkins® 900XL3 Series Small Backflow Preventer

Zurn Elkay Water Solutions announces the release of the new 900XL3 series small backflow preventer.

Combining the best technology and innovations from two of Zurn Elkay's popular small backflow preventers, the 300 series and the 900 series, the new Zurn Wilkins® 900XL3 series boasts the shortest lay length of any all-bronze small backflow preventer on the market today for easier drop-in installation for contractors.

The new design of the 900XL3 provides faster installation and easier maintenance. Fast-test test cocks are positioned along the centerline for seamless accessibility and minimized space restrictions. The 900XL3 series also features modular cartridge internals and a single, top-access check cover for quicker and easier access when performing maintenance and repairs.

The 900XL3 series is designed for residential or commercial applications. Available as a double check assembly (950XL3) in

sizes from 3/4" to 2" or a reduced pressure principle (975XL3) in sizes from 1/2" to 2", it is a great choice for any retrofit or new construction needs. Its all-bronze construction proves durable and long-lasting, even in harsh-environment tests.

The 900XL3 series meets lead-free environmental requirements and is fully compliant with ASSE® 1013 (1/2" to 2") / 1015 (3/4" to 2") and AWWA® C510. Moreover, the 900XL3 series is cUPC® listed, meets the requirements of NSF/ANSI/CAN 61 and 372, and is approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

Learn more about the new Zurn Wilkins 900XL3 series and Zurn Elkay's complete line of backflow preventers at www.zurn.com.

■ SFPE Foundation Announces New Research into Assessment of Sustainable and Fire-Resilient Buildings

The SFPE Foundation, a charitable organization focused on enhancing the scientific understanding of fire and its interaction with the natural and built environment, is pleased to announce the funding of a research award to prepare for future development of risk-informed performance-based tools for the assessment of sustainable and fire-resilient buildings. The research will be led by **Brian J. Meacham**, PhD, PE, CEng, FIFireE, FSFPE, Managing Principal at Meacham Associates, with support from **Håkan Frantzych**, PhD, FSFPE, Associate Professor, and **Margaret McNamee**, PhD, Professor, both with the Division of Fire Safety Engineering at Lund University.

The research will involve characterizing the problem, researching and identifying appropriate assessment methods, identifying necessary attributes and requirements for input data, and developing a framework to underpin a risk-informed performance-based assessment methodology. Additional review will focus on consideration of how green attributes and risk factors impact risk assessment, uncertainty treatment, and decision-support methodologies in sustainable and fire resilient buildings. Findings of the study are expected to be published and presented through SFPE and the SFPE Foundation in 2023.

Financing for SFPE Foundation-funded research is provided through the generous support of donors, including SFPE, SFPE chapters, SFPE members, governmental agencies, leading companies and organizations, and others. Demand for SFPE Foundation research funding support far exceeds available funds. The SFPE Foundation periodically invites research proposals through both open calls and specific requests for proposals.

Additional information about the SFPE Foundation, its programs, and this research project is available at sfpe.org/foundation.

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■ Western Fire Chiefs Association Appoints Mark Niemeyer as President

During the recent International Association of Fire Chiefs annual conference in San Antonio, Texas, the Western Fire Chiefs Association (WFCA) named Boise Fire Chief Mark Niemeyer as the Association's President. Previously Vice President of the WFCA, Chief Niemeyer brings 30 years of experience to his new role.

As the WFCA President, Chief Niemeyer will work closely with members and states to address current fire service challenges and meet common goals. Those challenges include recruitment, retention, professional development, diversity and equity, technology advancements, and the increasing threat of wildfire across the West. Additionally, he will be a pivotal part of the team working on all phases of the WFCA Fire Map that was introduced this summer as a free resource to communities to track the paths of wildfires with the goal of saving lives, land and property. Additional build out of the map will include layers critical to community communication.

Chief Niemeyer currently serves as the Fire Chief of the Boise Fire Department. As the largest fire department in Idaho, and one of the fastest growing cities in the country, Chief Niemeyer leads a progressive group of 300 men and women who serve Boise and the surrounding community.

■ International Fire Suppression Alliance, Ltd. Opens the FY2023-2024 Grant Application Cycle

The International Fire Suppression Alliance, Ltd. (IFSA) is pleased to announce that grant applications are now being accepted for organizations seeking funding in IFSA's Fiscal Year 2023-2024. The application process is open to any fire safety related group, association, or agency seeking to promote, expand, and improve the use of automatic water-based fire suppression systems outside of North America.

The IFSA has awarded over \$3M in grant funding to a variety of organizations over the last 20 years. That funding was used to support a range of research, education, training, and regulatory advocacy projects in countries around the world. A key focus for IFSA's Fiscal Year 2023-2024 grant award cycle will be in one or more of the following areas:

- Developing or growing organizations with similar objectives to the IFSA
 - Enhancing fire safety regulations and building & fire codes
 - Adopting recognized product standards to maintain industry integrity
 - Improving local industry performance through enforcement of recognized installation, and maintenance standards, and
 - Educating regulators, public officials, as well as the public regarding the advantages and demonstrated success of automatic water-based fire suppression systems
- Applications and instructions can be found on the IFSA website.*

Please visit <https://www.firesprinkler.global/grants> to download an application. Grant Applications for the Fiscal Year 2023-2024 funding cycle are due December 1, 2022.

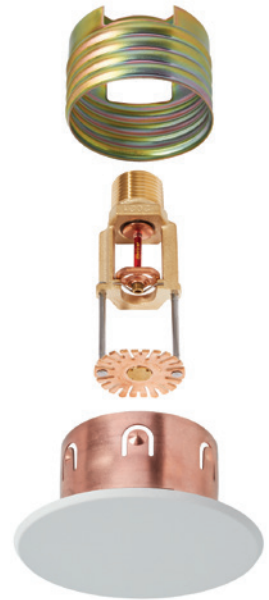
■ Tyco® 5.8K LFII Sprinkler Brings Improved Hydraulic Performance and Efficiency to Residential Fire Protection

Johnson Controls launches the new Tyco LFII Residential 5.8K Concealed Pendent Sprinkler for the protection of homes, apartments, dormitories, hotels and other residential buildings. The sprinkler's increased 5.8 K-factor features improved hydraulic performance compared to other residential models to help more efficiently protect 18-by-18 feet (5,5-by-5,5 meters) and 20-by-20 feet (6-by-6 meters) rooms.

The Tyco LFII 5.8K Residential Concealed Pendent Sprinkler is available in both ordinary 155 °F (68 °C) and intermediate 200 °F (93 °C) temperature configurations. The sprinkler and cover plate assembly provide a sleek, concealed aesthetic while allowing for adjustment up to 3/4-inch (19,1-mm), which provides additional flexibility for contractors performing the installations.

The Tyco LFII Residential 5.8K Concealed Pendent Sprinkler is intended for use in wet pipe sprinkler systems for one- and two-family dwellings, residential buildings up to four stories in height and residential portions of any occupancy per NFPA 13, 13D and 13R. It features a maximum working pressure of 175 psi (12,1 bar).

Visit www.tyco-fire.com to learn more.



■ Next-generation Grinnell One-Bolt Coupling

Johnson Controls launches the next-generation Grinnell G-Fire One-Bolt Figure 579A Coupling with customized gaskets for more secure fitting on fire suppression pipe joints. The grooved, rigid coupling is ready to connect right out of the box, providing contractors with a fast and smooth installation experience.

In addition to speeding up installation, the One-Bolt 579A Coupling features center-stop gaskets customized to specific coupling sizes to help ensure proper positioning. The



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1.25- and 1.5-inch coupling sizes keep their proven, powder-lubricated gasket, ideal for small pipe diameters, while 2- through 4-inch sizes use a redesigned self-lubricating gasket intended to optimize protection against rolls or pinches. A low-profile spine allows contractors to install couplings in tighter spaces, while 360-degree pipe contact ensures a truly rigid joint.

Pre-assembled and pre-lubricated, the 579A coupling features an innovative, three-piece housing and just one bolt to tighten. The coupling's single-bolt design eliminates alternate tightening and assists in more consistent installations and dependable product performance. The coupling has a pressure rating of up to 365 psi and is UL/ULC Listed, FM Approved, VdS Approved and LPCB Approved.

For more information about the Grinnell G-Fire One-Bolt Figure 579A Coupling, visit Tyco-Fire.com/579A.

■ Johnson Controls Acquires Rescue Air Systems

Johnson Controls announced that it acquired Rescue Air Systems, a leading provider of firefighter air replenishment systems (FARS) that enable firefighters to refill breathing air bottles within a building during responses.

A better alternative to carrying fresh air bottles into a building, FARS stations are designed to replenish firefighters' air bottles in less than two minutes using a building-installed air standpipe system. Just as water standpipes in buildings provide ready access to water, FARS provide firefighters with quick access to a safer, more constant and more dependable source of breathing air inside a compromised structure in an emergency.

Rescue Air Systems, based in San Francisco, will add to Johnson Controls' comprehensive portfolio of fire suppression products and solutions available today including fire sprinkler system products; foam agents and hardware; and special hazards products.

To learn more about Rescue Air Systems, visit <https://rescueair.com/>.

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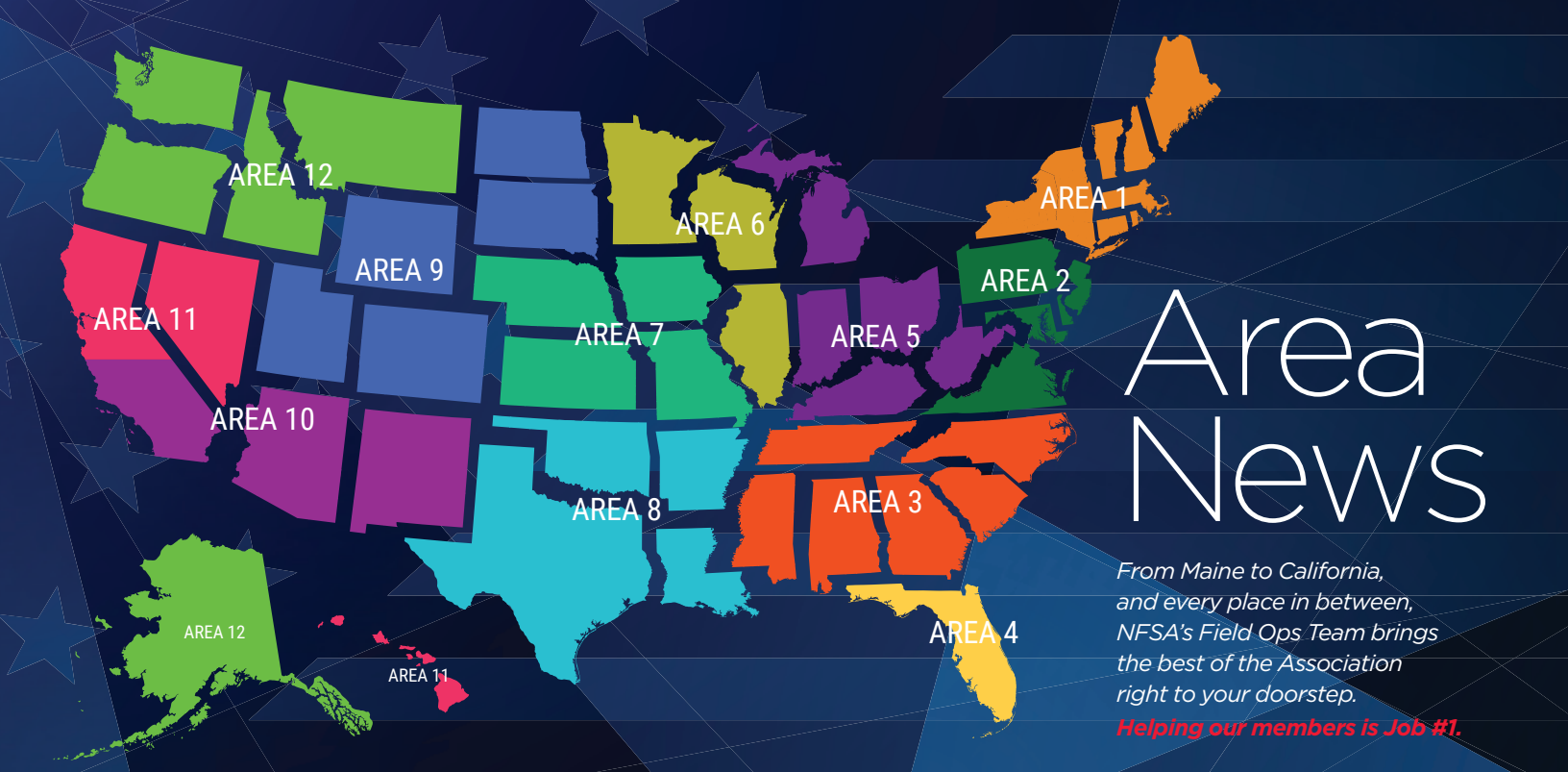
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Area News

From Maine to California, and every place in between, NFSA's Field Ops Team brings the best of the Association right to your doorstep. *Helping our members is Job #1.*

AREA 1

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

Chief Eric Smith announces that the Gloucester Fire Department has been awarded an Assistance to Firefighters Grant (AFG) from the Federal Emergency Management Agency (FEMA).

The \$291,272.72 grant will be used to fund the installation of fire sprinkler systems and working alarm systems for the department's three substations.

The City of Gloucester will match the grant award by 10%, bringing the total funding available to the department to \$320,400.

The installation of the sprinkler systems will allow the department to mitigate any potential fires that could happen at any of the three stations, which are often left vulnerable when crews are responding to calls for service in the community.

Buildings are frequently unoccupied due to the nature of the job, and with the installation of sprinkler systems and working alarms, essential assets can be protected 24/7/365.

"Getting sprinklers for our stations is huge for us. If our buildings are empty, it means our members are out providing assistance to residents or businesses in need, so if something happens at the station there is no one there to tend to it right away. We've seen firsthand how important sprinklers can be in mitigating the damage fires can do, and we're grateful to be able to install them in our facilities." Chief Smith.

AREA 2

DELAWARE, MARYLAND, NEW JERSEY, PENNSYLVANIA, VIRGINIA, DISTRICT OF COLUMBIA

NFSA Trailers on the Move!



As of this writing, the NFSA Mid Atlantic Team has had a very busy year so far. The team has had 126 booked fire sprinkler burn trailer requests for the year with new requests pouring in weekly.

The trailer(s) have been hitting the pavement every week to deliver fire sprinkler training to AHJs/fire departments, as well as public outreach events for fire prevention outings and fire sprinkler awareness.

The Mid Atlantic Team currently has three trailers, soon to be four. The two primary burn trailers are each designated to either New Jersey or Pennsylvania, and the bigger side-by-side trailer is used for events that draw larger crowds. The new trailer to join the team is expected to be delivered early next year. This new trailer will be a 20-foot mobile wet lab with a burn cell. This means, the team can bring AHJs and firefighters inside the trailer and conduct training. The firefighters will be able to interact with the three standpipe risers in the trailer and witness a live burn with deployment from a fire sprinkler. With the month of October being fire prevention month, the team was the road at events with these

assets more than they were in the office. It was a great burn trailer season!



AREA 3

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

Tennessee Fire Sprinkler Contractors Take Part in Fall Fling!



The Tennessee Fire Sprinkler Contractors Association and the National Fire Sprinkler Association met up in Gatlinburg, Tennessee in September to attend the annual Fall Fling! Over 60 professionals from around the state attended this two-day event that focused on professional development.

NFSA's Vince Powers offered a presentation on NFPA 13 2019 updates and NFPA 25 2020 updates as well as an educational session on the inspection, testing and maintenance of fire pumps.

Additionally, Terin Hopkins with Team NFSA offered a presentation on NFPA 14 2023 updates. Terin and Vince also held a demonstration with NFSA's valve trailer. This demonstration showcased the ways different fire sprinkler systems operate and trained attendees on how to interact with these systems.

AREA 4

FLORIDA, PUERTO RICO

Mark YOUR Calendars for 2023

ITM Coming to Tamarac

Inspection and Testing for the Fire Sprinkler Industry

November 15-17 with test offered on the 18th

Tamarac Fire Rescue

6000 Hiatus Road, Tamarac, FL

Annual Buddy Dewar Golf/Skeet Classic

March 27-28, 2023

Legislative Day Walk the Halls with us in Tallahassee

April 3-4, 2023

FFSA Fall Conference

October 2023

If you have team members desiring to inspect water-based systems and have not yet obtained certification, this class will prepare them to take either NICET exam or Academy Certification Exam offered at location on day four.

If you wish to take the exam on day four, you MUST register for the Exam at ACE website: www.academyexams.com

AREA 5

INDIANA, KENTUCKY, MICHIGAN, OHIO, WEST VIRGINIA, ILLINOIS, MINNESOTA, WISCONSIN

Ferguson Fire & Fabrication Side-by-Side Burn Demonstration in Ohio



Pictured above L to R- NFSA President Shane Ray and NFSA Membership Committee Bob Knoese.

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NFSA President Shane Ray attended the Ferguson Fire & Fabrication Trade Show in West Chester, Ohio, on August 11, 2022. NFSA Membership Committee Chair and Ferguson Fire & Fabrication Director of National Accounts Bob Knose welcomed vendors to the event and thanked NFSA and the Ohio State Fire Marshal's Office Chief of Fire Prevention Ken Klouda for transporting and participating in the successful live side-by-side burn event.



NFSA staff who accompanied President Ray at the event included Director of Membership Caleb Armbrust, Brian Biggs, Abbie Gunnells, Marty Blackwell, and Ron Ritchey.

AREA 6

ILLINOIS, MINNESOTA, WISCONSIN

Historic Retrofits Leading the Way to Economic Vitality in West Des Moines

West Des Moines, Iowa can be proud of the Valley Junction historical district and the successes in building safety and economic development they have achieved by installing fire sprinkler systems in the district's historic buildings. West Des Moines Fire Marshal Mike Whitsell has been an incredibly strong advocate for sprinklers. He has led the efforts to combine grant opportunities, zoning changes, and code work to make the retrofit projects so successful and accepted. The economic growth - as a direct result of sprinklered buildings - has been truly impressive!



(L-R) West Des Moines Fire Marshal, Mike Whitsell touring the Valley Junction district with city officials from Nevada, Iowa: Director of Economic Development Brenda Dryer, City Administrator Jordan Cook, Building Official Ryan Hutton, and Fire Chief Ray Reynolds.

Retrofit of the Budget Inn in Nevada, Iowa



Chief Ray Reynolds and the City of Nevada have also been leaders in the effort to retrofit older buildings and bringing new economic vitality to their jurisdiction. They recently oversaw the conversion of the unsprinklered Budget Inn into 36 fully-sprinklered efficiency apartment units. The retrofit is being done by Des Moines-based Midwest Automatic Fire Sprinkler Company.

Live Fire Sprinkler Demonstration Training Unit Visits North Central Region

The Live Fire Sprinkler Demonstration/Training Unit from Nashville was used for three days of firefighter training in West Des Moines, Iowa in early August. All on-duty crews from West Des Moines and representatives of 13 other fire service agencies received training on FDCs, standpipe operations, wet/dry/double pre-action systems, and residential tank and pump operations. The training was designed to help firefighters better understand sprinkler and standpipe systems so they could work more successfully at sprinkler-controlled fire incidents.



(L to R) NFSA staff members Terin Hopkins, Joel Hewitt, Tim Butler, and Marty Blackwell; West Des Moines Fire Marshal Mike Whitsell and Fire Chief Craig Leu, and NFSA staff member Vincent Powers training at the West Des Moines Fire Department.

The "Valve Trailer" also was featured at the Minnesota State Fair during Governor's Fire Prevention Day. Over 153,000 people attended the Fair on August 26, and several thousand stopped by the NFSA booth to speak with our crew of dedicated contractor and Local 417 volunteers. The NFSA trailer's residential tank and pump system was used to demonstrate sprinkler activation in 17 live-fire activations during the day to nearly 500 people. And in a historical first, the Hamburg Fire Department's 1901 hand

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pumper and hose cart was used to resupply our residential tank for the demonstrations!

High-Rise Retrofit Projects in Full Swing in Minneapolis

Caleb Armbrust and Local 417 Business Agent Craig Bistodeau recently toured the worksite at the Holland High-Rise in Minneapolis. Dynamic Fire Protection is retrofitting the public housing high-rise as a result of the legislation passed in 2021 requiring the installation of fire sprinklers in all public housing high-rise buildings in the state. The Dynamic crew demonstrated the DecoShield product they were using to make the project more esthetically pleasing to building residents. The residents we spoke to during the tour were very happy with the Dynamic crew and very appreciative of NFSA efforts to help pass the legislation leading to the improvement in fire protection for these aging buildings.



On the 6th floor of the Holland High-Rise project with (L to R) NFSA Director of Membership, Caleb Armbrust; Dynamic fitters Scott Rehman, Randy Rosen, and Justin Rivard; and Local 417 Business Agent, Craig Bistodeau.

AREA 8

ARKANSAS, LOUISIANA, OKLAHOMA, TEXAS

Congratulations and Thank You to Two Central Texas Fire Protection Professionals!



Jeff Shapiro, P.E.; International Code Consultants – Fire & Life Safety Award Recipient

We are proud to share that Central Texas' own Jeff Shapiro, P.E., FSFPE – International Code Consultants, received two national fire protection awards: On August 25, 2022 – Jeff was awarded the Excellence in Life Safety award at the International Association of Fire Chiefs in San Antonio, Texas and on September 30, 2022; Jeff received the 2021 NFSA Russell P. Fleming Technical Award at the NFSA Annual Seminar in Clearwater, Florida. Congratulations to Jeff, who continues to be a valuable part of Team NFSA as a code's consultant.

Thank you to Scott Stookey, who serves as a Graduate Engineer with Austin (TX) Fire Department in the Fire Marshal's Office. Scott was a guest author for the National Fire Sprinkler Magazine Member Take Over Edition published September-October 2022. Scott's article is titled An AHJ's Perspective – Stationary Lithium-Ion Battery Energy Storage Systems. Scott has served 21 years with AFD and over 30 years of regulatory and emergency response experience. Scott is a graduate of the Fire Protection and Safety Engineering Technology program at Oklahoma State University and a Professional member of the Society of Fire Protection Engineers.



Scott Stookey, Austin Fire Department Graduate Engineer - National Fire Sprinkler Magazine Guest Author

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Learning and Development

NFSA Regional Managers Cindy Giedraitis and Rob Geislinger together with the Broken Arrow Fire Department coordinated three days of training November 8-10, 2022, at the new Broken Arrow Fire Public Safety Center. The sessions included *“Rough and Final Inspections of Fire Sprinkler Systems”* and a 2-day Fire Sprinkler Plan Review.

Save The Dates

Texas Construction Association Legislative Walk January 31 – February 2023

The Texas Legislative Session 2023 will soon be starting and all FSCATX (Fire Sprinkler Contractor Association) members are TCA members too! TCA & FSCATX invite all construction industry members to join them for a “Walk on the Capitol”. The Walk provides you a chance to speak with your local legislators about construction industry legislation that benefits the fire sprinkler industry too.

Please contact cindy@nfsa.org if you want to be part of the NFSA Texas, Oklahoma, Louisiana, or Arkansas Legislative Team for 2023!

NFSA Texas First Annual Sprinkler Shootout!

– Skeet & Clay Shoot / April 3, 2023

Join NFSA Texas Chapter for its first Sprinkler Shootout at the Alpine Range in Fort Worth, Texas on Monday, April 3, 2023! The NFSA Texas Shootout will benefit fire sprinkler education, outreach, and scholarships.

AREA 9

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

DFPC Implements Emergency Antifreeze Rule

The Colorado Division of Fire Prevention & Control implemented an emergency rule change to its adopted code sets, found in 8ccr 1507-101. The rule modifies the provisions within NFPA 25 addressing the September 30, 2022, sunset for non-listed antifreeze solutions.

The proposed rule was reviewed by members of the State’s suppression advisory committee as well as the ad hoc antifreeze committee. As an emergency rule, it became effective upon publication. However, a public hearing will be held within 60 days at which point stakeholders will be able to make comments or propose amendments.

For more information, go to <https://publicsafety.colorado.gov/get-involved/rules-and-regulations>.



National Fire Sprinkler Magazine

The Flagship Publication of The National Fire Sprinkler Association

NFSM Article Submission Guidelines

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

Query

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

NFSM runs full-length feature articles of approximately 800-1200 words.

Feature Articles

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

Writing Guidelines

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

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

Illustrations

NFSM uses a variety of photographs, line art, charts, and maps.

We prefer to receive artwork electronically, and all illustrations should include credit and caption information.

Copyrights

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

Payment

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

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