

National Fire Sprinkler Magazine

May-June 2021
No. 226



The Flagship Publication of The National Fire Sprinkler Association

MEMBERS' CHOICE ISSUE

AND
2021 BUYER'S GUIDE

Inside this issue:

Fire Sprinkler Application for Lithium Ion-Based Energy Storage Systems
page 11

Codes for Layout Techs
page 15

Evaluating Fire Pump Tests
page 21



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The articles in this issue were chosen from member suggestions submitted to our 2020 Readership Survey of our Sept/Oct Member Takeover issue. Watch for our next survey this coming September and get your suggestions in! You ask, NFSA delivers!

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Argco	68
Bull Moose Tube	54
J.C. Cannistraro	6
Compufire	56
Core & Main	20
CST	25
Ferguson	BC
Gast Manufacturing	28
General Air	24
Harrington	3
Hose Monster	62
Metraflex	64
Potter	8
Reliable	IFC, 38-39
Talco	23
Viking	10

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FEATURES

- 29 2021 BUYER'S GUIDE**
- 55 NFSA's Top Tech Competition -The "Superbowl" for Sprinkler Layout Technicians**
by Roland A. Asp, CET
- 57 Mutiny on the Bounty**
by John Sylvester
- 58 Multi-Family Fire Sprinkler Requirement in Wisconsin**
by Marty King
- 60 Is It Time for Exposure Sprinkler Protection?**
by Thomas G. Daly
- 61 Lessons from "George" in Jon Gordon's Energy Bus**
by Elizabeth Lafond Copeze

DEPARTMENTS

- 5 From the President's Desk** -by Shane Ray
Leading Through
- 7 From the Chair's Desk** -by Kent Mezaros
Oooo Eeee What Up with That?
- 9 Contractor's Cue**
- 11 Technically Speaking** -by Jeff Dunkel, PE
Fire Sprinkler Application for Lithium Ion Based Energy Storage Systems
- 15 Codes Corner** -by Jeffrey M. Hugo, CBO
Codes for Layout Techs
- 17 New Members**
- 19 Notes from the Fire Scene** -by Vickie Pritchett
Planning for Vegas! It's dream time!
- 21 ITeM** -by Vince Powers
Evaluating Fire Pump Tests
- 25 Membership Matters** -by Caleb Armbrust
Buy NFSA!
- 26 Fire Sprinklers in Action**
- 63 Social Scene** -by Joanne Genadio
Vegas, Here We Come!
- 65 HQ News**
- 66 People**
- 67 Chapters in Action**
- 69 Sprinklering of News**
- 73 Regional News**

CONTENTS





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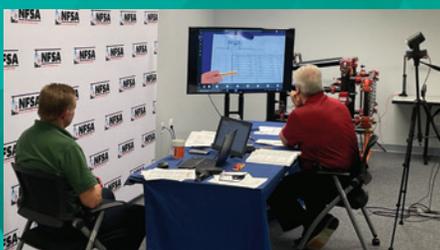
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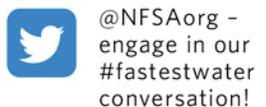
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Leading Through

It's hard to believe we have experienced one complete year of all-virtual board meetings as the result of a world-wide pandemic, but we have led through. I couldn't be happier with how agile NFSA is, and how our inclusive system as an association allows us to not only lead through by surviving, but thriving as well.

As we conducted three virtual board meetings, a hybrid Executive and Finance meeting from our Headquarters in Maryland, two very successful virtual seminars, one within two months of the onset of COVID-19, and as we now prepare for our 2021 Annual Seminar in October (pushed from our normal time of May), our team of volunteer Board, Council, Committee, and Chapter leaders, along with our professional staff, have and will continue to lead through.

Please join us in Las Vegas for our Annual Seminar and include your staff to join us online as we step up our conference experience, allowing both in-person and virtual attendance. NFSA is proud of the fact that our conferences and technical training is an investment in our members. Several years ago, our Board of Directors made the decision to make these events "cost neutral" to our members. Every penny you invest in these events, we will re-invest in you, our members, and in the quality of the programs and products you receive. Having been a part of many associations over my professional career, this isn't a normal approach, but it is a great approach for NFSA and member value.

Speaking of investing, our team at NFSA is working diligently, as they have been even before all the economic, political, and civil unrest and world-wide pandemic, bringing on new member experiences to our events, our website, and to all the software you interact with as our members. We are pleased to share that over 2,000 individuals have interacted with our online system since it was implemented last June, and we have had 2,161 individual users participate in our online training platform.

We will continue to lead through these times of change and most importantly, we will continue to transition NFSA into a more user-friendly, high-impact, high-output member experience. As we strive every day to advance the vision and mission of NFSA, we will continue to be agile and evolve as the world around us and most importantly, as the world of our members, evolves.

There are many publications about visionary companies and their endurance over time. NFSA has many members that are visionary companies that have stood the test of time, most of them all longtime members of NFSA. These member companies lead through these times and for that I am grateful. It is a great experience to see our staff working with members to ensure the fire sprinkler industry is promoted, defended, and advanced, as we all lead through these times with sound decision making, proper planning and preparation, and steadfast execution.

As a COVID-19 survivor, as well as one who has received the vaccination, I look forward to seeing you in Las Vegas for our Annual Seminar and to be with our two-years-worth of prestigious award winners and new Fire Sprinkler Hall of Fame inductees. These great people have led through many years in the fire sprinkler industry, and I know you will join me in congratulating them.

Stay safe, stay well, and stay in touch.

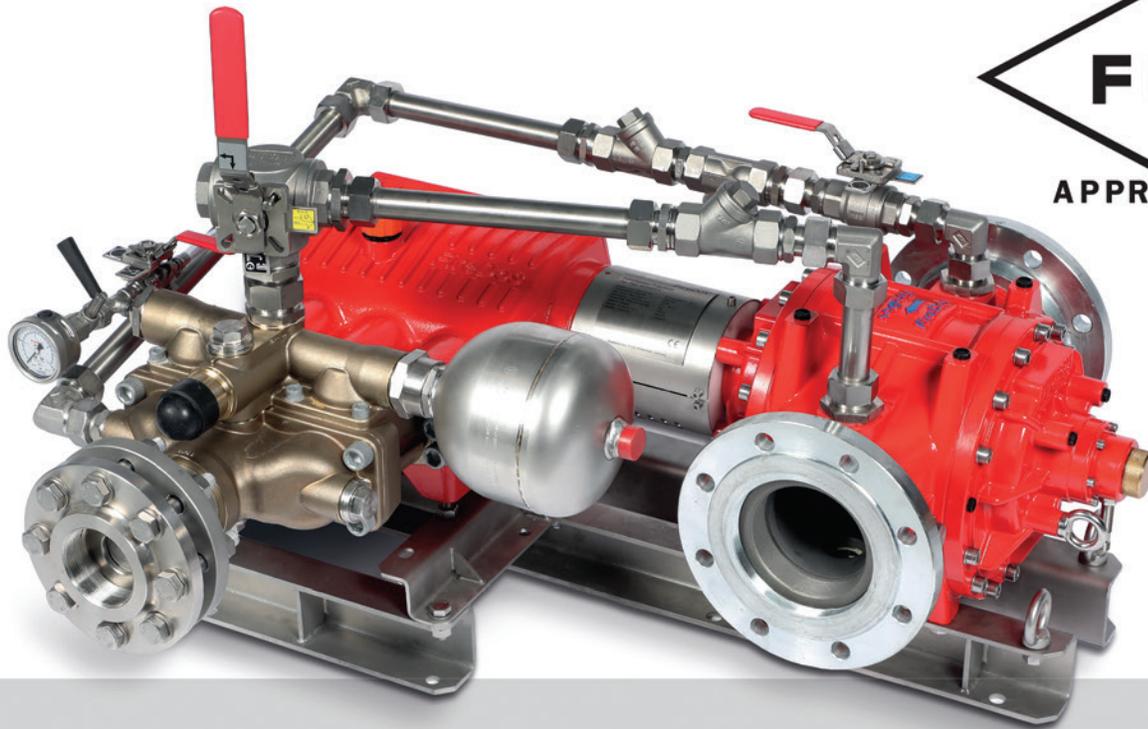


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Ooooo Eeee What Up with That?

For those of you that still tune into Saturday Night Live on occasion, you may recognize the above-referenced phrase and probably already have the jingle locked repeatedly into your head and will be cursing me later in the day for it being stuck there. (For Shane Ray and a handful of others that don't know what I'm talking about - Google search Kenan Thompson "What up with That" and you too can suffer our pain). Unfortunately, some of the recent ongoings of our industry have had me utter a similar phrase and look to the sky for some assistance in seeking answers.



It seems as if we are finally turning the corner on the coronavirus. Running our businesses over the past year plus has been challenging for obvious reasons. Much of the country saw some decrease in workload in 2020, but overall, it appears to be significantly less than our industry first expected when it all hit the fan in March of 2020. Certain sectors (retail & office work to name a couple) took a punch in the gut, while others such as residential, hospital and pharmaceutical work carried the torch. 2020 supply chain issues were minimal, and our primary concerns were keeping our staff healthy and safe so we could continue to keep our businesses churning.

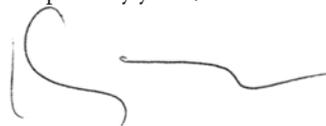
For those of you that may have noticed, around the end of October of 2020 we started receiving emails regarding pipe price increases. For us it was first October 19th, followed by November 2nd, then November 20th, December 4th, December 17th, January 6th, February 1st and then another March 12th (hopefully since the time I penned this and the time you received your magazine copy we haven't seen any more!). Okay – so its time to sing it with me Ooooo Eeee What Up With That, What Up With That (over and over again). I mean with all the crap we had to deal with over the past year, it seems like just piling it on to throw that in the mix. We all know that our 99% of our contracts are written without escalation protection so it may be difficult to get too excited to start a project that you know you are \$ 50,000.00 - \$ 100,000.00 in the hole prior to even hanging a piece of pipe. This isn't a swipe at our pipe manufacturers here either. If you have had the opportunity to review bulk steel coil prices (over a 150% increase in that time period) its easy to see why we are currently dealing with this issue. Other supply chain issues have since popped up, and other components pricing along with them. Suppliers and manufacturers have done well to keep us stocked, but pricing increases will surely hurt many of our contractor members.

In another Ooooo Eeee What Up with That moment, how about some of the chilly weather that hit our friends in Texas and some otherwise normally warm areas in February this year? You know its never good for areas known for having their backflow preventors installed outdoors above ground to have single digit temperatures for an extended time. Whether you are a climate change believer or not, there is some crazy stuff going on! If you want to look at the positive side, you can say "At least we created some work for those guys fixing freeze-ups." Unfortunately, the downside is the insurance subrogation cases that will follow regarding all the damage caused by those frozen systems.

So, let's try and look forward and make some lemonade here. We know NFSA made the decision to cancel our Annual Expo this year in May (as well as last year's Annual Seminar), but the good news is we will (Good Lord willing) be getting together October 5th-8th at the Cosmopolitan in Las Vegas for a remodeled Seminar supported by our Suppliers and Manufacturer's with tabletop displays. NFSA will be providing its usual quality breakout sessions and guest speakers, and we will also offer our seminar virtually for those that can't visit with us in person. We will have a Top Tech winner in 2021 and it will certainly be nice to honor all our industry award winners and Hall of Fame inductees from 2020 and 2021 in front of their peers. Come October, I think all of us will be ready to share a cocktail with some industry friends, and I can't think of a better group to celebrate with.

Stay safe and well. I am looking forward to seeing you all soon. Thank you to all NFSA members for your support and the opportunity to continue to serve.

Respectfully yours,



Kent Mezaros, *Chairman*

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Is Blogging Really Worth the Time and Effort?

by Jon Allo

One of the biggest mistakes people make when trying to promote their business is that when they get busy, they give up on blogging. One of the best tools you have at your fingertips to build traffic to your website is your blog. The blog is almost always the number one way that people find their way to your website.

Great for SEO

Your blog is perfect for improving search engine optimization because you can write keyword-rich, authoritative articles full of information that your audience wants to read and needs to know about. Search engines like often updated websites, and the easiest way to update a site often is via the blog.

Connect with Customers

A blog is a great way to connect with your customers. If you open up the blog to comments, then it's more like a busy message board or forum, provided that you answer and enter into discussions with everyone who comments on your blog posts. Not only that, those comments are also great for SEO.

Build Authority

When you blog about things in your business, your audience will get to know you better and realize that you're an authority for the niche and topic that you're involved in. Proving it over and over again through your choice of words on your blog will build that perception up even more.

You Can Create New Products

Through blogging, you'll be able to analyze problems your audience has, then come up with solutions for them. As you develop a problem and solution format, you'll be able to use those blogs as future products.

Offers Free PR

Few things in life are free, but your blog, if you write the posts yourself, is about as free as it gets. Not only that, it's also a very effective form of marketing. You can use the blog to reach out to others and even open doors for you for other types of publicity.

Build Relationships

Your customers will come to expect your blogs, and they will look at you as the person they want to learn more from. This is a great way to build relationships, because if you post to your audience with them in mind, they feel like you're thinking of them when you say something.

When you start a blog, it seems to move slowly at first. But after you've managed to post on a regular basis for a few months, you'll start to see a steady trend upwards for site visitors, comments, and engagement. The upwards trend will not slow down if you never stop blogging. •

Article Source: https://EzineArticles.com/expert/Jon_Allo/1079948

How Workers' Compensation Mod Rates Affect You & Your Business

By John Rothschild

Workers' compensation is regulated on a statewide level, which means that it's all standardized and everybody pays the same rate as everybody else. Right? Well, of course that's not the case. There are a number of factors which impact your own coverage, how much you pay, and even how easy or difficult it is for you to obtain your coverage.

At the start, how much you pay and your ability to obtain workers' compensation coverage is determined by factors such as your industry classification, whether this is a new or established business. Depending on the state you're in and how many employees you have, there's also the determination of whether or not you are required to carry this form of insurance to begin with.

Small businesses may also seek out the assistance and services of employee leasing providers to become a part of their coverage, generally a much larger and more well-established platform. This generally helps to reduce the expense of coverage.

Workers' compensation mod rates are among the most important variables for determining how much you pay for your coverage. A new business generally receives a mod rate of 1.0. All this means is you pay 100% of the mandated or regulated rate for your industry type. Of course, the term "modifier" implies this number won't always stay the same. Your rate can be lowered in the years that follow. A 95 mod rate, for instance, implies you only need to pay 95% of the industry standard. The state and industry you're in will once again impact how, when, and to what degree your mod rate can change.

Workers' compensation mod rates can then also go up, of course, much to the chagrin of business owners. A 1.15 mod rate implies that you must pay 115% of the standard rate. Such an increase is typically based on the number and severity or variety of reported incidents from the previous year or reported time period. If your rate goes up high enough, that's when you may find difficulty obtaining coverage. Different states have organizations or services that then specialize in high-risk or hard to obtain workers compensation policies. That might help ensure you get covered, but you'll have to brace for the added cost.

Understanding the mod rates on your workers' compensation is one further way to understand how much you're paying, and for what reasons. Be sure to consult with a licensed insurance agent or broker in your state if you have any questions about obtaining a new policy or shopping for a better deal. •

John Rothschild is the owner of ACI Insurance Services of Florida.

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Viking's new VK4621 and VK4921 5.6 K-factor concealed pendent commercial sprinklers are designed for installation on concealed pipe systems where the appearance of a smooth ceiling is desired. In addition to the new sprinklers, Viking offers a durable and lightweight installation wrench, allowing for installation with the protective cap in place, and minimizing damage to the sprinkler during the process.

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The new sprinklers are available in multiple temperature ratings and finishes, including ENT plating for corrosive environments. The VK4621 is cULus Listed as a quick response sprinkler and FM Approved as a standard response sprinkler. The VK4921 is UL Listed and FM Approved as a standard response sprinkler.



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Fire Sprinkler Application for Lithium Ion Based Energy Storage Systems

by Jeff Dunkel, PE



As a new member of Team NFSA, I would like to introduce myself. I am Jeff Dunkel, P.E. and I serve as a Fire Protection Engineer in the Contractor Services Department with Michael Joanis, P.E. My professional career started in the Oklahoma Air National Guard as an Emergency Manager. After graduating from Oklahoma State University with a B.S. Degree in Fire Protection and Safety Engineering Technology, I worked both in consulting and construction for 13 years of fire protection engineering experience. I am honored to be a part of Team NFSA and look forward to supporting the mission.

Introduction

Lithium-Ion (Li-ion) batteries are used in a wide variety of consumer products and the applications are growing every day. There is a good chance you are reading this article from a device powered by a Li-ion battery. The ability to store energy in a smaller lighter battery, also known as energy density, is what makes this technology beneficial. However, as the applications grow and as energy density increases, so does the potential for hazards. The traditional use for Li-ion batteries has been for portable devices. However, the increased energy density capabilities have made these batteries a viable technology in small- and large-scale Battery Energy Storage Systems (BESS). BESS systems can be used for residential applications, commercial/medical applications, and even grid level energy storage. Currently the largest BESS system is the Moss Landing Energy System in Monterey County California which contains 4,500 stacked battery racks each with 22 battery modules. Grid level BESS systems such as Moss Landing allow the electric utility to store surplus electricity during low demand and distribute that power during peak demand, also known as peak shaving. While there are many different types of batteries, Li-ion batteries are the most common in these applications. This is the technology we will be focusing on here.

Defining the Hazard

Since the sole function of Li-ion battery is to store electricity, one might assume a fire involving a battery of this type would be a Class C fire or electrical fire. These fires are closer to a Class B or a flammable liquid/gas fire. To understand why these fires are Class B you have to understand the construction of the batteries

and the cause of these fires. Li-ion are comprised of a negatively charged anode and a positively charged cathode separated by a semi-permeable film with liquid electrolyte on both sides to allow for the transfer of ions. Another common misconception is the assumption that since these batteries contain lithium, water could create or increase a hazard since lithium metal is not compatible with water. However, with the way the lithium is incorporated into the battery in a metal oxide, water reaction is not a concern even when fully submerged.

Thermal Runaway

The primary hazard of Li-ion batteries is thermal runaway. NFPA 855, Standard for the Installation of Stationary Energy Storage Systems, defines thermal runaway as: "The condition when an electrochemical cell increases its temperature through self-heating in an uncontrollable fashion and progresses when the cell's heat generation is at a higher rate than it can dissipate, potentially leading to off-gassing, fire, or explosion." While the fuel for a fire or explosion in thermal runaway is also due to gaseous electrolyte venting, the cause of this event is internal. During thermal runaway, a battery rapidly releases its stored energy where the volatility of the reaction is proportional with the amount of energy stored in that cell. Active suppression systems are not effective in stopping or reversing thermal runaway. However, some systems can provide a cooling effect for the adjacent cells and potentially minimize the propagation of thermal runaway to those cells.

Thermal runaway can be caused by a few different factors outside of manufacturer defect. Thermal abuse such as loss of cooling or simply overheating or electrical abuse, by overcharging, or by physical damage to the battery cell. In general, any issue that would compromise the separation film will cause an internal short which will propagate a thermal runaway event. Once a thermal runaway event is triggered there is a high likelihood that it will propagate to adjacent cells if no thermal barrier or active cooling method is provided.

Suppression Challenges

The Fire Tetrahedron consists of four components, oxygen, heat, fuel, and a chain reaction, all of which are needed to maintain combustion. At its core, traditional fire suppression methods are basic. To properly extinguish a fire only one component of

continued on page 12

continued from page 11

the Fire Tetrahedron needs to be removed. The challenge of suppressing fires involving batteries is that all the components, with the exception of oxygen, are contained or produced by the battery during a malfunction. A battery fire can be delayed with the removal of oxygen. However, it will not stop the progression of thermal runaway. In an oxygen-lean environment without flame propagation the thermal runaway process will continue to release ignitable gases. For this reason, reintroducing oxygen even hours after the initial event can cause re-ignition or explosion of released gases. Hence, any suppression system that extinguishes a fire by displacing oxygen must maintain a low oxygen level environment for a sufficient period of time, often significant, that allows operators and first responders to verify stored energy is sufficiently dissipated, flammable gases are no longer present, and the batteries are sufficiently cooled. Where typical hold times for gaseous suppression systems is minutes, a thermal runaway event could release or contain ignitable gases for hours.

A lesson was learned the hard way on April 19th, 2019 when an explosion occurred at the Arizona Public Service Company (APS) McMicken Battery Energy Storage Facility located in West Valley, Arizona. A technical analysis provided by DNV-GL of the incident concluded that a thermal runaway event occurred which caused the release of the total flooding clean agent system. However, the clean agent system was not designed or capable of preventing or stopping a cascading thermal runaway event in a BESS. Approximately three hours after the thermal runaway began, the BESS door was opened by firefighters, agitating the remaining flammable gases, and allowing the gases to make contact with a heat source which cause the explosion, injuring several firefighters.

Large Scale Testing

In June of 2019, FM Global released the first publicly available large scale fire testing for Li-ion based energy storage systems. FM Global's report documented testing for two types of Li-ion based BESS systems, each with different chemistries; iron phosphate (LFP) and Lithium nickel oxide/lithium manganese oxide (LNO/LMO), other than the battery chemistries, the equipment construction was similar. In this testing the LFP batteries exhibited a lower overall hazard where a single sprinkler operation was sufficient to control the fire to the rack of origin, with no significant involvement of the modules in the adjacent rack. The LNO/LMO test did result in the fire spreading to the adjacent rack and the number of sprinklers operating resulted in a demand area greater than 2,500 ft².

This report resulted in the recommended sprinkler design criteria for LFP system under a 15ft ceiling of a minimum density of 0.3 gpm/ft² over a 2,500 ft² design area using a sprinkler with a K-Factor of 5.6 or greater. The recommended fire water duration is 90 minutes. This recommended criteria applies to ESS racks limited to 83.6-kWh spaced 3ft from any non-combustibles and 5ft from combustibles.

The FM Global tests also resulted in a recommended sprinkler design criteria LFP system under a 15ft ceiling is a minimum density of 0.3 gpm/ft² over the entire room where the ESS is

located using a sprinkler with a K-Factor of 5.6 or greater. The recommended fire water duration is 45 minutes for each rack that is located within 9ft of another BESS rack. This recommended criteria is limited to BESS racks limited to 125-KWh spaced 6ft from any non-combustibles and 9ft from combustibles.

These tests were narrow in scope and should not be used for application, they do, however, provide good insight as to what we can expect to see going forward.

Current Code Requirements

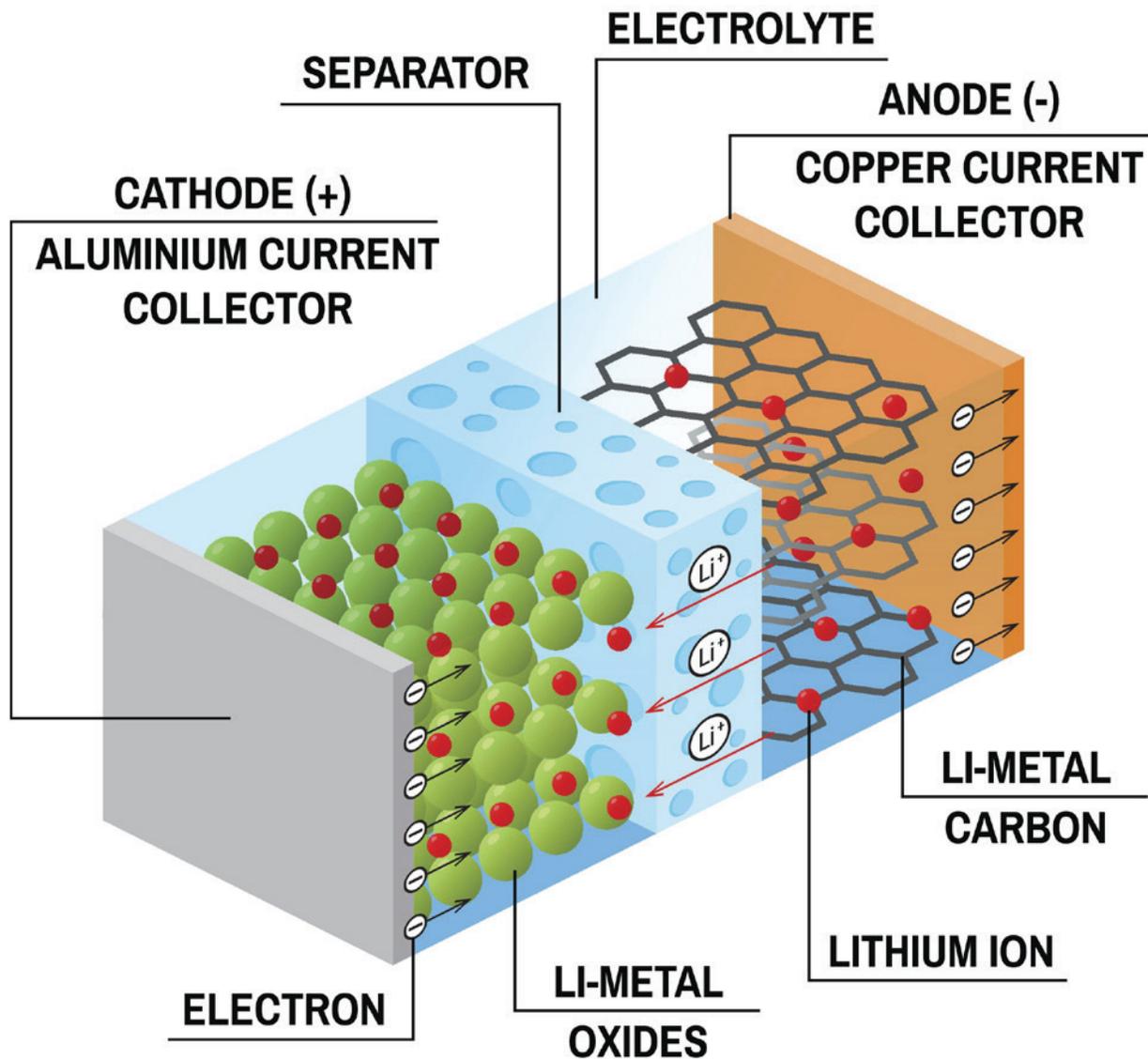
In 2016 NFPA began the development of NFPA 855, The Standard for the installation of Stationary Energy Storage Systems. The initial edition of NFPA 855 was released in 2020. The scope of NFPA 855 is not limited to Li-ion batteries or battery specific BESS, however Li-ion batteries make up the majority of BESS systems today. The scope of NFPA 855 is limited to ESS systems that exceed 20 kWh. Early in the development of this standard there was no large-scale fire testing data available for guidance. The initial direction was a "surround and drown" approach, where a single fire area would be limited to a specific energy density of 600 kWh, and the sprinkler design area would be the limits of that fire area. Since it is not possible to stop the thermal runaway process in a specific cell once it has started, the goal is to prevent the thermal runaway event from propagating to adjacent modules or racks.

NFPA 855 requires fire suppression systems for all indoor ESS installations. However, when approved by the authority having jurisdiction (AHJ), suppression systems can be omitted when the building is dedicated for the use of BESS and is located more than 100ft from buildings and lot lines. Non-dedicated use buildings are also limited to 600 kWh within a single fire area.

Outdoor walk-in enclosures also require fire suppression systems which can be omitted when agreeable to the BESS owner and approved by the AHJ. Walk-in enclosures larger than 53ft x 8.5ft x 9.5ft are considered an indoor system. BESS systems installed on rooftops or open parking garages require fire suppression and no option is given for omission. Mobile BESS systems will only require suppression systems when they are walk-in type units.

In all cases that require fire suppression, the only prescribed suppression system in NFPA 855 is a sprinkler system installed per NFPA 13. Initially the design criteria was a minimum 0.3 gpm/ft² over a 2,500 ft² design area or the entire room whichever is smaller. An addendum issued April 1st 2020 (TIA 20-1) modified this criteria to only apply to ESS units or groups with a maximum stored energy of 50 kWh. As you can see in the FM Global testing, a single battery rack or unit can easily exceed 50kWh. Additionally these groups must be separated by a minimum of 3ft. The April 2020 TIA also clarified that ESS systems that exceed the 50kWh in a single group or multiple groups spaced closer than 3ft require a large-scale fire test to determine an adequate design criteria for the specific ESS units used. The large-scale test must be in accordance with UL9540A or an equivalent standard. With the stringent energy density limits, in fire areas and groups, it is likely that the majority of sprinkler densities in any moderately sized ESS will be

continued on page 13



dictated by the UL9540A test. This makes the 9540A test report vital to properly design a suppression system for these facilities.

NFPA 855 does allow the use of other suppression technologies such as carbon dioxide, water spray, water mist, clean agent, and aerosol fire suppression, but only when a large scale fire test such as UL9540A has shown they are acceptable. We have learned from the FM Global testing and the APS McMicken explosion findings that a suppression system that cannot provide long term cooling or does not allow for ignitable gases to be ventilated would create design challenges. There is an industry effort to provide fire barriers and/or fire suppression systems integrated into the BESS system at the manufacturer's level. Some are water spray systems that will be connected to the building sprinkler system. More developments like this are expected as additional large scale testing is conducted.

In addition to NFPA 855, the 2018 edition of the International Fire Code has added chapter 12 for Energy Systems which in many

ways mirrors the requirements of NFPA 855. The IFC Chapter 12 only applies to ESS systems in excess of 20kWh, limits groups spaced by 3ft to 50kWh, and any fire areas that exceed 600 kWh is considered a Group H-2 occupancy. The Group H-2 classification itself would require sprinklers, however the chapter specifically requires sprinklers to be installed based on criteria from NFPA 13 or large-scale fire testing.

While Li-ion battery technology may not be new, the application for large scale stationary energy systems is. We can learn from the limited publicly available large-scale testing and the incidences that we have had to date and continue to progress. The ever-changing technology for BESS and the expanding use for these technologies will ensure this topic will continue to be on the forefront of the fire protection community for some time. •

continued on page 14

continued from page 13

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PHOTO CREDITS:

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Codes for Layout Techs

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



Layout technicians are masters of understanding and applying the rules of their trade. These rules come from many sources; some internal, many external. If anyone in this trade can be labeled the “hub,” it is the layout technician. Compliance with rules, codes, standards, laws of hydraulics, project deadlines and balancing material and labor costs cross the layout tech desk several times throughout a project. Codes are one piece of that layout technician experience that provide an edge to their employer and the projects they are involved in.

Watch the words—codes and standards.

Everyone does it. It slips from my mouth too. Not every book with rules in our industry is a “code book”. There are codes, standards, guidelines, recommended practices, data sheets, manuals, and so on. Specifically, codes, or model codes, are published in the U.S. by the International Code Council (ICC) or the National Fire Protection Association (NFPA). They become law when adopted by an authority having jurisdiction, such as a federal department, state, or local community. For example, when a state or local adopts a model code, it becomes that jurisdiction’s law. *The Michigan Building Code* is a version of the model *International Building Code* with Michigan amendments. A standard, such as NFPA 13, is referenced by the code. As thick as a code book is, it needs to reference standards to install the building systems, such as fire protection. In short, the code tells when sprinklers are required, a standard tells how to install them.

What are codes?

There are building codes, fire codes, life-safety codes, plumbing codes, residential codes, and more. A building code, such as the *International Building Code* (IBC) or *NFPA 5000 Building Construction and Safety Code*, provides new construction rules for commercial buildings. It classifies buildings, regulates heights, area, construction types, structural materials, egress and more. For fire protection, it states when it is required based on height, area and occupancy type, then refers to the appropriate fire protection standards, such as NFPA 13.

Fire codes, such as the *International Fire Code* (IFC) or *NFPA 1 Fire Code*, are mostly fire prevention codes that apply to existing buildings. The fire code maintains what the original building code required to be installed. For example, the IBC requires NFPA 13 for sprinkler systems, the IFC requires the NFPA 13 system to be maintained through NFPA 25, the *Standard for the Inspection, Test-*

ing, and Maintenance of Water-Based Fire Protection Systems. While fire codes are most maintenance codes, there are parts that apply to new construction too. A good example is Chapter 9 of the IBC and IFC. The contents of this chapter are correlated between the two codes for consistency. Note the [F] in front of the IBC Chapter 9 sections, i.e. [F] 903.3.1.1 NFPA 13 sprinkler systems, indicates the rule text is maintained by the fire code technical committee.

The *NFPA 101 Life Safety Code* supplements the construction requirements of a building code with a specific focus on the means of egress and other fire-related systems. The *International Residential Code* (IRC) applies to one- and two-family dwellings and townhomes up to three stories. Plumbing codes, mechanical codes, existing building codes and more make up the code library with nuggets of rules that can apply to the fire sprinkler industry.

Where does NFPA 13 fit in?

NFPA 13 (as well as other NFPA standards: NFPA 13R, NFPA 13D, NFPA 14, NFPA 20, etc.) is a referenced installation standard through the code, specifically in the IBC, Chapter 35 (Referenced Standards) or NFPA 101, Chapter 2 (Referenced Publications). In short, referenced standards are commonly referred to as a standard (not a code). For the fire sprinkler industry and especially layout technicians, it contains all the rules for material selection, spacing sprinklers, support, and water supply for fire sprinkler systems. Since layout technicians are tasked with laying out and designing fire sprinkler systems, NFPA 13 is important, and the most familiar document. The referenced standard and edition come from the locally adopted code (from the Michigan Building Code example above) and like the code, the referenced standards and edition become law also. *Table 1* correlates the edition year of the code and referenced standard.

IBC, IFC, NFPA 101, NFPA 1	NFPA 13 series	NFPA 25
2021	2019	2020
2018	2016	2017
2015	2013	2014
2012	2010	2011
2009	2007	2008

continued on page 16

Hierarchy of Codes and Standards

When an architect designs a building, it is according to the codes. Codes (as laws) require sprinkler systems. Standards, like NFPA 13, contain the installation rules for sprinkler systems. If sprinkler standards are the layout technician's day-to-day book of installation rules; is a code that requires the sprinkler system important to the layout tech? Yes. The IBC, IFC, IRC, NFPA 101 and NFPA 1 are primarily codes, they do, at times, have installation rules that override the standards. When a code has an installation rule that the standard may or may not have, the code overrules the standard. This means, not all the rules for sprinklers are found in NFPA 13, NFPA 13R, or NFPA 13D. Knowing the sprinkler rules in the local or model codes can save sprinkler contractors money. Every contract and bid document has a clause that reads, "design to the locally adopted code". When the locally adopted code changes NFPA 13, and it is missed, it costs contractors money.

Which codes are important for layout technicians?

At the very least, layout technicians should have and know the codes in *Table 2*. The listed chapters have specific installation rules that require sprinklers when not required in NFPA 13, and often designate densities and design areas that may be different than NFPA 13.

What else does a layout technician need to know in codes?

As mentioned previously, when a model code is adopted locally, it has been modified from the "model" status. This means the local government has made changes to the text and made it law. Oftentimes, locals make changes to sprinkler system rules, thresholds, or remove the requirements. It is important to know the model codes, but it is even more important to know the local changes to the codes. The codes and chapters noted in *Table 2* can be the most common areas where local authorities make changes that affect the layout technician. For example:

- California building code has specific sprinkler installation requirements in Chapter 9 and further modifies NFPA 13,

NFPA 13R, NFPA 13D in Chapter 35.

- Massachusetts building code has licensing laws, submittal, and shop drawing requirements in Chapter 9.
- Colorado, Illinois, Missouri are examples of home rule states. Every jurisdiction adopts codes and individual rule changes locally. Neighboring jurisdictions can be on different editions. In Missouri, some jurisdictions have a 20-psi safety factor or cushion, some do not.

Deep breath

Adding codes to the layout technician library and knowledge is important. It takes time and some research beyond NFPA 13 to get the bid and design done according to code. The nuance of model codes and local changes that affect the layout technician is one of the benefits of being a NFSA member. The codes and standards specialists, engineers, and government relations at the NFSA represent the industry on dozens of technical and regulatory committees for model and state codes. Here are some resources available specifically geared for layout technicians to have an upper hand on code related knowledge:

- www.nfsa.org/code-tracker
- www.nfsa.org/category/blog
- <https://member.nfsa.org/Get-Involved>
 - Past and current issues of *TechNotes*
 - Past and current issues of *SQ* and *NFSM*
- <https://member.nfsa.org/Shop/Product-Catalog>
 - 2004-2018 *Expert of the Day (EOD) Handbook*: \$195 for members
 - *NFSA Guide to Fire Sprinkler Changes in the 2021 IFC, IBC, IRC, and IEBC*: free
 - *NFSA Guide to Fire Sprinkler Changes in the 2018 IFC, IBC, IRC, and IEBC*: free

These resources provide up-to-date and accurate information on what is important. Having a resource that can compile local and national knowledge and advocate for changes is what the association does for its members every day. •

Code	Reason	Important Chapters for Layout Technicians		
<i>International Fire Code (IFC)</i>	There are more specific sprinkler rules in the IFC than the IBC.	Chapter 9 – Fire Protection and Life Safety Systems	Chapter 32 – High-Piled Combustible Storage	Chapter 57 – Flammable and Combustible Liquids
NFPA 101, <i>Life Safety Code</i>	Important companion to local code. Important for health-care work.	Chapter 9 – Building Systems and Fire Protection Equipment	Chapter 11 – Special Structures and High-Rise Buildings	Occupancy Chapters 12 through 42 – specific to occupancy
<i>International Residential Code (IRC)</i>	IRC has a residential sprinkler standard in Section P2904.	Chapter 3 - Building Planning	Chapter 29 – Water Supply and Distribution	Section P2904 – Dwelling Unit Fire Sprinkler Systems

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Planning for Vegas! It's dream time!



by Vickie Pritchett, **Director of Outreach & Government Relations**

At the writing of this article, I have just returned from a site visit at The Cosmopolitan in Las Vegas, and I must share, it's going to be such a neat venue for our **2021 North American Fire Sprinkler Expo** and Board of Directors meeting!

First of all, the hotel has dedicated the entire third floor to us, which will provide us a sense of place and also ensure that we are able to be safe in our interactions and networking! At the direction of our Seminar Committee, we have decided that the Expo Hall will have smaller footprint "table-tops" and it's going to be awesome! Each of the 52 spots (10 x 20 and available on a first-come, first-serve basis) will allow space and let us spread out, surrounding our famous **NFSA Top Tech Competition** in the "round" on the show floor. It was fun to walk the space and imagine us there, and the venue certainly provides a lot to be excited about!



The presenters lined up for our event will provide a great selection of business, leadership, and technical presentations. We are thrilled to welcome the International Association of Fire Chiefs Fire & Life Safety Section to our event! The FLSS will have its own track of workshops that will focus on codes, standards, and issues relevant to our Authorities Having Jurisdiction (AHJ) friends! A big thank you to Chief Andy King, Chief Michael O'Brien and Chief Greg Rogers who have been instrumental in helping us secure this partnership! We look forward to expanding our outreach to these members and are offering a special rate of \$249 for the entire conference for those with NFSA AHJ memberships. President Ray has had the vision of including these important stakeholders for years, and it's great to see the vision become reality. Shane served on the IAFC board and I am honored to continue service to the Fire & Life Safety Board which provides resources for fire & life safety advocates across the nation. The hashtag **#PartnersInProgress** is real for this gathering and we welcome our friends! We are also happy to return \$100 of each registration to the FLSS section and know they will do good things to continue spreading the word with those resources.

I would be remiss to not mention our Awards Recipients – who will be honored on Thursday, October 7th. We will be honoring both our Class of 2020 and Class of 2021 recipients, and what an awesome two classes they are! As a recap, here's our list of 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

The NFSA Awards Banquet is always a highlight. With these legends being honored, we are sure to have a memorable time together in Vegas toasting these industry greats! We will honor the 2020 Golden Sprinkler Award recipient at the Opening Reception. The Russell P. Fleming Technical Service Award recipients will be honored during General Sessions. The Leadership in Public Safety Award recipients, and both Hall of Fame classes, along with the 2021 Golden Sprinkler Award recipient will be honored at the Awards Banquet.

Ok, are you already thinking about packing your bag? I am! Please mark your calendars for October 5-7, 2021 and join us for a wonderful week! Registration opens June 1st, and there are discounts available for contractors bringing more than five and more than ten, respectively. I'd also like to remind everyone that virtual registrations are available that allow us to include LOTS more people. Think of those who are not able to travel to Vegas and include them in the fun and learning!

I could go on and on about all that Vegas has to offer us as we return to an in-person event/gathering... but, I know you already know that. Let's take the Vegas Strip by storm sharing our **#fastestwateronthevegasstrip** love to all! I sure hope to see you there!

Stay Safe, Until Next Time,

P.S. The Common Voices Golf Classic will be played Friday afternoon, October 8th, following the NFSA Board of Directors meeting that morning! I can't wait to come together for a cause worth believing in!



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Evaluating Fire Pump Tests

by Vince Powers, *NFSA's ITM Specialist*



A fire pump assembly is one of the most expensive and important systems in fire protection. NFPA 25, the Standard for Inspection, Testing, and Maintenance of Water Based Fire Protection Systems, requires that the system be properly maintained. An important portion of maintenance is an annual full flow test. There are several inspections, testing, and maintenance (ITM) items that can be found in Chapter 8, but for this article the focus is on annual flow testing.

attention must be paid to verify the water temperature does not raise enough to damage equipment.

Testing Equipment



Flow Testing Requirements

Testing Requirements begin in Section 8.3 of the 2020 edition of NFPA 25. There are two tests required: the no-flow (churn) test and the annual flow test. Diesel driven fire pumps are required to be churn tested for thirty minutes per week, while electric driven fire pumps must be churn tested for ten minutes per month. There are four exceptions outlined in Section 8.3.1.2.1 that require an electric driven pump to be run weekly. Annual flow testing requirements in Section 8.3.3 state that the fire pump shall be tested at three points: no-flow (churn), 100% (rated), and 150% (peak flow). Variable speed fire pumps must be tested at seven points: churn, 25%, 50%, 75%, 100%, 125%, and 150%.

Testing Methods

There are three methods of flowing water to obtain the flow points required for the annual flow test. First, the most common is the use of hose streams. There are many alternatives to using diffusers and play pipes when using this method, such as attaching nozzles directly to the test header valves. For example, there have been situations where in lieu of having to use long runs of hose for a 1500 GPM fire pump, the contractor attached a six-inch pipe to where the test header would then use a UL listed measuring device at the end of the pipe run to verify flow volume. The second method is the use of a flow meter to drain or back to the suction reservoir. The third method is when the flow meter is piped back to the suction side of the fire pump (closed loop metering). This method is only permitted to be used for two years, once every three years, methods one or two must be used. When using the third method

There are few limitations to what equipment can be used to test fire pumps. The general requirement is that the pressures and volumes are achieved. It is important to ensure that you are using quality equipment such as calibrated gauges, and that the flow testing equipment is not faulty. This can lead to inaccurate information and failing fire pump results. Section 8.3.3.5 outlines testing equipment. Following is a link to a blog regarding calibration of gauges and other testing equipment:

<http://bit.ly/CALITM>

Evaluation of Test Results

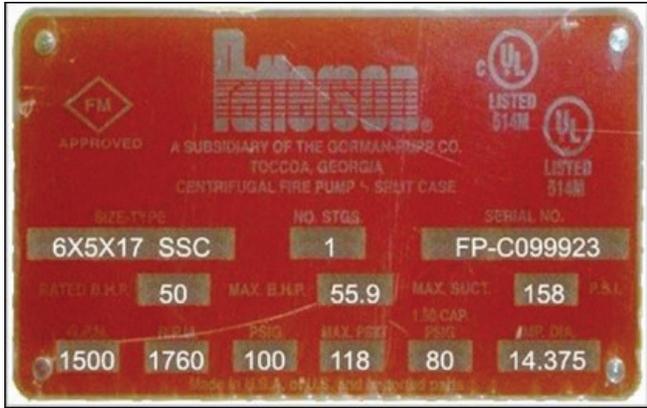
Section 8.3.7 sets the requirements for evaluating the results of the fire pump flow tests. The results must be within 95% of the fire pump data plate or manufacturer's unadjusted field test curve.

To determine if the fire pump is within 95%, we must subtract the suction pressure from the discharge pressure then divide by the data plate supplied PSIG for each flow condition. For example, we will use the following data plate and flow test numbers to determine if we are meeting the requirement of Section 8.3.7.

continued on page 22

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continued from page 21



For this example, our flow test numbers recorded during the test will be:

	Suction PSIG	Discharge PSIG	Speed (RPM)	Volume (GPM)
Churn	50 PSI	166 PSI	1767	0
100%	48 PSI	144 PSI	1752	1500
150%	42 PSI	118 PSI	1748	2250

To determine net pressure, subtract suction pressure from discharge pressure then divide by rated pressure.

Churn 166 PSI-50 PSI= 116 PSI then divide by 118 PSI (max psi from data plate) = .98 or 98%

100% 144 PSI-48 PSI=96 PSI then divide by 100 PSI (rated psi from data plate) = .96 or 96%

150% 118 PSI-42 PSI=76 PSI then divide by 80 PSI (1.5 cap psi from data plate) =.95 or 95%

As we can see from the example the fire pump results are within 95% of the data plate information.

Laws of Affinity

What if the results were not favorable and below the 95%? In the 2017 edition, Section 8.3.7.1.3 states that velocity and pressure adjustments shall be applied to net pressure and flow to determine compliance with Section 8.3.7.2.3(2), which is the requirement to meet 95% of the data plate or manufacturer’s unadjusted curve. It is important to note the 2017 edition because Section 8.3.7.1.3 was introduced as a new section and in the 2020 edition the requirements changed. The 2020 edition states that the test results must meet 95% of the name plate without adjusting for net pressure and flow, as well as requiring that the affinity laws must be applied to achieve 100 percent of rated flow.

Let us apply affinity laws to an example to meet the 95% as

required in the 2017 edition. Using the same example above but change the results for this example.

	Suction PSIG	Discharge PSIG	Speed (RPM)	Volume (GPM)
Churn	50 PSI	166 PSI	1767	0
100%	48 PSI	142 PSI	1740	1485
150%	42 PSI	116 PSI	1738	2225

Subtract suction pressure from discharge pressure then divide by rated pressure. In this example, the fire pump test results are below the required 95% of the fire pump data plate at both 100% and 150%.

Churn 166 PSI -50 PSI= 116 PSI then divide by 118 PSI (max psi from data plate) = .98 or 98%

100% 142 PSI-48 PSI=94 PSI then divide by 100 PSI (rated psi from data plate) = .94 or 94%

150% 116 PSI-42PSI=74 PSI then divide by 80 PSI (1.5 cap psi from data plate) = .93 or 93%

Affinity Law:

$$Q2 = Q1 \left(\frac{N2}{N1} \right)$$

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

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)

continued on page 23

continued from page 22

Using the affinity laws above adjust for net pressure and flow to find the new results.

100% test result adjustments

142 PSI-48 PSI=94 PSI at 1740 RPM and 1485 GPM

1485 GPM (1760 RPM/1740 RPM) = (Q2) 1502 GPM

94 PSI (1760 RPM/ 1740 RPM)²=(Pn²) 96 PSI. Divide 96 PSI by 100 PSI (100% rated pressure) = 96%

150% Test result adjustments

116 PSI-42PSI=74 PSI at 1738 RPM and 2225 GPM

2225 GPM (1760 RPM/1738 RPM) = (Q2) 2253 GPM

74 PSI (1760 RPM/1738 RPM)²=(Pn²) 76 PSI. Divide 76 PSI by 80 PSI (150% rated pressure) = 95%

After applying affinity laws, the pump results are still within the 95% of rated pump net pressure and flow, as required by NFPA 25. If the fire pump is flowing the required GPM and meeting the required RPM but not achieving the rated PSI, there is something wrong and the fire pump assembly will have to be investigated further for the cause of degradation. Chapter 8 of NFPA 25 does not provide specific procedures on how to conduct fire pump testing or how to evaluate the results. Conducting some research as well as reading Supplement 1 of the NFPA 25 handbook will assist in how to properly conduct and evaluate the fire pump testing. Using calibrated testing equipment, as well as undamaged hoses and flow measuring devices provide the building owner with consistent and accurate test data. •



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Buy NFSA!

by Caleb Armbrust, **Director of Membership**



This issue contains the **NFSA Buyer's Guide** and prominently features many proud NFSA member companies within its pages. I hope that as you thumb through these pages you will support and thank those companies that support the mission of NFSA through their Association membership. You will see more information on this campaign in the coming weeks and months as staff works to promote these members.

Orientation

In the last couple of months, I have had the chance to introduce several new members to my colleagues, as well as new NFSA digital resources. A lot has changed, and I would be delighted to show you and your team around some of the new features, or just help you navigate to the new locations of much-loved benefits like Expert of the Day (EOD), and the magazine/article archives. We will begin to make the site more streamlined and user-friendly.

Your feedback is always welcome and appreciated. Just send me an email or call the office.

Community & Email

We work hard to make sure you get the email content and see the information in the blogs we post on our website. However, there are many times that emails are intercepted in internal safety controls, blogs are missed, and information is not as easy to find as we may hope. This month you should begin to see emails coming through with a slightly different look and feel as we launch our new marketing email platform with more subscription options than ever before. Be on the lookout for the launch of the NFSA Community Platform and associated training webinars on how to use this exciting new tool. We cannot wait for you to give it a shot!

Until next time,

Caleb

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FIRE SPRINKLERS IN ACTION

St. Cloud, MN

Single Sprinkler Extinguishes Arson Fire in A Hotel Room

Thank you to Jon Nisja, Fire Safety Supervisor, Minnesota State Fire Marshal Division and St. Cloud, MN Fire Marshal Michael Post for reporting this sprinkler save.

A single fire sprinkler extinguished an arson fire set in a St. Cloud, MN hotel room. The damage was minimal and was contained to the room and corridor because the sprinkler operated while the fire was still in an early growth phase.

The Sprinkler & Alarm system were restored quickly, and the hotel was able to continue operations.

The fire was determined to be intentionally set and an arrest was made.*

Nuts and Bolts:

Type of System:	Wet
Number of Sprinklers Activated:	1
Installation Contractor:	Grinnell Fire Protection System
Value of Building:	\$5,408,000
Value of Contents:	Unknown
Value Saved:	\$5,408,000

Woodbury, MN



Single Sprinkler Save at Minnesota Hotel

Thank you to Woodbury, MN Fire Marshal Rick Current for sending us this sprinkler save!

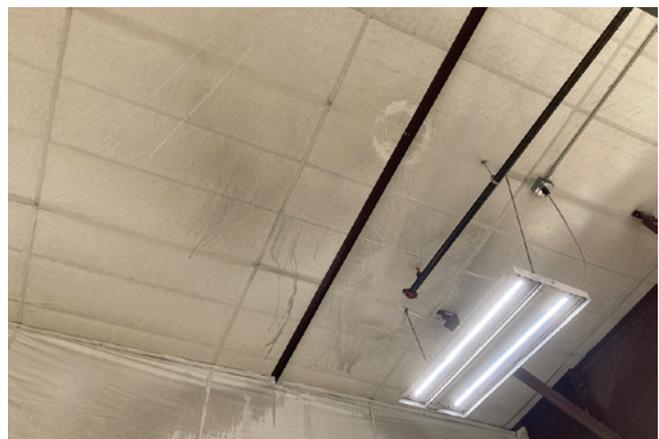
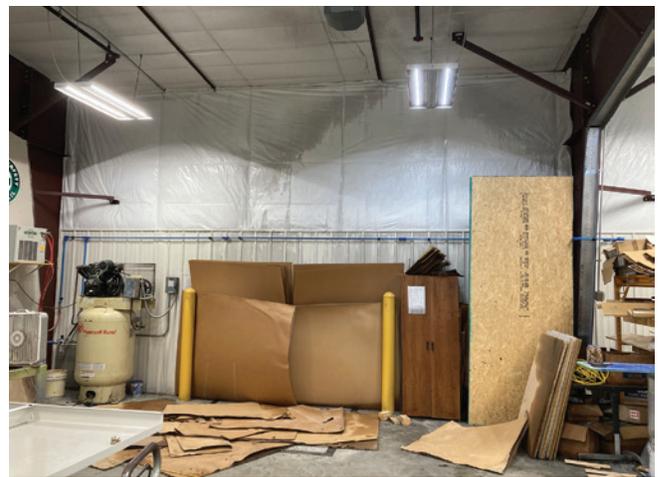
On March 12th, a fire broke at an Extended Stay America hotel in Woodbury, MN. A cleaning crew had placed their cleaning supplies on a stovetop in a unit of the hotel, unaware that a burner on the stove was accidentally left on by the room's occupant. The cleaning crew then left the room for their break.

Approximately 15 minutes later, the hotel's fire alarm system activated notifying guests to evacuate. One sprinkler activated and contained the fire to the stovetop area, until the first-in fire crew could extinguish the remaining fire with a fire extinguisher.

Smoke, fire and water damage was contained to the room where the fire originated. The sprinkler head was replaced, and the system was put back in service several hours later and the hotel remained open.

Guests, staff, and firefighters safe. Minimal damage.

Hutchinson, MN



Single Sprinkler Controls Commercial Fire

Thank you to Fire Chief Mike Schumann, of the Hutchinson, MN Fire Dept. and Fire Safety Supervisor Jon Nisja of the Minnesota State Fire Marshal Division for alerting us to this sprinkler save!

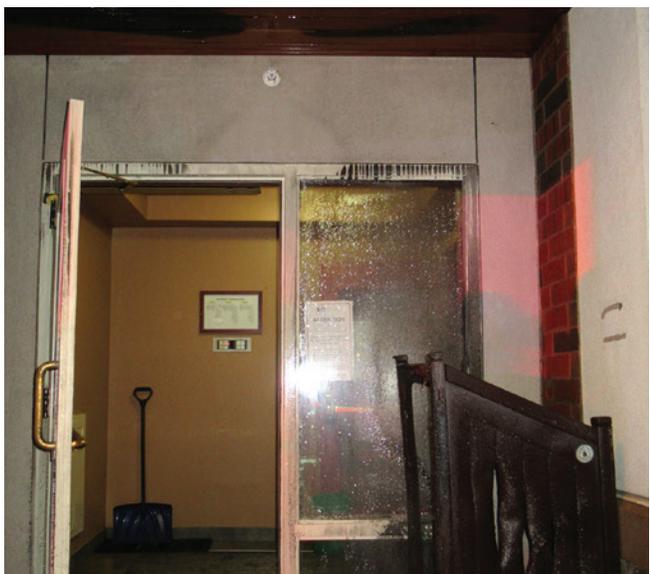
On February 7th, after hours, a cart with flammable paint supplies on it ignited in a commercial building in owned by the City of Hutchinson. One sprinkler activated and contained the fire until firefighters arrived and finished extinguishment. This steel-

continued on page 27

continued from page 26

constructed building complex is on the edge of our city limits and since it was unoccupied at the time, it would have likely been a multimillion-dollar loss (possible total loss) if it were not for the sprinkler system. •

St. Paul, MN



Single Fire Sprinkler Saves Senior-Living Apartment Building

Thanks go to Terry Johnson, Assistant Fire Chief with the South Metro Fire Department in St. Paul, MN for sending us this sprinkler save.

On February 9th, a single fire sprinkler saved a senior-living apartment building. Damage was minimal thanks to a sidewall sprinkler protecting the entrance. •

Emmitsburg, MD

Single Sprinkler Saves Apartment Building

Thank you to Wayne Powell, a longtime fire sprinkler advocate and volunteer with the Emmitsburg, MD Vigilant Hose Company, for sending us this sprinkler save.

On Wednesday, March 17, at approximately 3:20 p.m., units

from the Vigilant Hose Company (VHC) of Emmitsburg, MD were dispatched to the report of an automatic fire alarm at the Seton Village Apartments.

While responding, crews were advised a water flow activation alarm had been received by the alarm company. Upon arrival, they found an apartment with a fire on the stove which had been controlled and then extinguished by the building's fire sprinkler system, thus saving property and very possibly the life of a resident who had fallen asleep on the couch. Activation of a single sprinkler awoke the resident, who was uninjured.

VHC Assistant Chief Josh Brotherton said, "The importance of a properly designed, installed and maintained sprinkler system can make all the difference in terms of life safety when a fire breaks out." "Any firefighter can attest that food left unattended on the stove is a common occurrence and one which can have deadly consequences," added Brotherton. •

Spokane Valley, WA

Sprinkler Save at Manufacturing Facility

Thanks to Jared Von Tobel and Pat Watson of Western States Fire Protection's Spokane office for sharing this sprinkler save.

When a fire broke out in a Spokane Valley manufacturing site on Jan. 31st, the fire sprinkler system contained the blaze and alerted the fire department. The building houses oils and chemicals used in vehicles and manufacturing equipment for the facility. Two sprinklers activated, containing the fire. There was negligible smoke damage near the origin of the fire, and after minimal mop up work, the building was back in service. This is another great example of how proper maintenance and response of a fire protection system prevents fire damage and business interruption! •

Eau Claire, WI



Sprinkler System Saves Warehouse

Thank you to Fire Inspector Jason F. Knecht of Eau Claire, WI Fire & Rescue for sending us this sprinkler save!

On January 14th, a fire sprinkler system saved a large storage warehouse in Eau Claire. The structure is an 800ft x 200ft warehouse that was used to store adult incontinent products from a local manufacturer. Pallets of product were stacked too close to the radiant tube heaters at the ceiling level. Four fire sprinklers activated and kept the fire in check until crews were able to overhaul a very large, smoldering pile. Value of \$3.4 million in product with only about \$500,000 worth of product lost. •

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900 Industries, Inc.

16 Deborah Drive
Sutton, Massachusetts
Tel: 508.865.9800
Website: www.900industries.com

Accu-Fire Fabrication, Inc.

8 Progress Drive
Morrisville, Pennsylvania 19067
Tel: 215.428.2400
Toll-Free: 800.641.0005
FAX: 215.428.0355

Website:

www.Accu-Fire.com

Email:

Sales@Accu-Fire.com

Founded:

1991

Primary Products/Services:

Fire Sprinkler Fabrication & Supply

Market Area:

Northeastern US

Hours of Operation:

7:00 a.m. - 5:00 p.m. Mon.-Fri.

Management:

Deadra Murphy, President
Vince Murphy Sr., Vice President
Vince Murphy Jr., General Manager
Dan Boice, Sales Manager
Mike Murphy, Regional Sales Manager
Travis Granger, Insider Sales
Inga Wright, Accounts Payable

Sales Contact:

Michael Murphy, Regional Sales Manager
Tel: 215.858.2508

Company Profile:

Since its inception in 1991, Accu-Fire remains a family owned and operated business. We are dedicated in providing superior fabrication and unparalleled service to our customers. Our 90,000 sq. ft. fabrication facility has over ten acres of pipe inventory. In late 2018, we finished an adjacent 45,000 sq. ft. storage facility to house our loose inventory. All products are delivered on our company trucks equipped with either a 65 foot knuckle boom crane or rear mounted fork lift. In addition to fabrication, Accu-Fire is a full-service supplier of fire sprinkler devices. Visit www.Accu-Fire.com for product affiliation. Accu-Fire is an approved Women's Business Enterprise.



Aegis Technologies, Inc.

319 Circle of Progress Dr
Pottstown, Pennsylvania 19464-3811
Tel: 610.676.0300
Fax: 610.676.0383

Website:

www.aegistechnologiesinc.com

Email:

ejensen@aegistechnologiesinc.com

Founded:

2007

Primary Products/Services:

Adjustable Drop Nipples, Non-adjustable Drop Nipples, Welding Outlet Fittings

Market Area:

North America, Europe

Hours of Operation:

8:00 a.m.-4:00 p.m. EST

Management:

Erik T. Jensen - President Theodore R. Jensen - Exec Vice President Terry F. Clark - VP of Sales Michael D. Ketterer - VP of Engineering

Sales Contact:

Terry Clark, V.P. Sales
Email: tclark@aegistechnologiesinc.com

Company Profile:

Aegis Technologies, Inc. is a domestic specialty fittings manufacturer that has the know-how, experience, and determination to provide your fitters with high quality fittings at a value that will help you continue to realize material and labor savings. The Aegis product offering consist of the Adjuster adjustable sprinkler drop, the Dropster non-adjustable sprinkler drop and Whizweld Branchlet welding outlet. The Adjuster is an inexpensive fitting that saves comeback labor by addressing the installation variances in the horizontal plane which account for the majority of comeback costs. The Dropster eliminates the traditional make-up labor of a reducing coupling and nipple in the field or shop. The Whizweld Branchlet with its compound contour design provides excellent fit for easy one-pass welding. Whizwelds are made for automatic welders.



AGF Manufacturing, Inc.

100 Quaker Lane
Malvern, Pennsylvania 19355-2479
Tel: 610 240-4900

Website:

www.agfmfg.com

Email:

jmchugh@agfmfg.com

Founded:

1986

Primary Products/Services:

Fire Protection Valves and Accessories

Market Area:

International

Management:

Jim McHugh
George McHugh
Rich Pancoast

Sales Contact:

Jason Uder, National Sales
Email: juder@agfmfg.com

Company Profile:

For over 30 years, AGF Manufacturing has designed and produced innovative fire sprinkler products that provide an unprecedented combination of reliability, versatility, and ease of use. AGF revolutionized the fire sprinkler industry with the Model 1000 TESTANDRAIN® single handle valve, which eliminated the time and space consuming traditional loop assembly. Since then, AGF has introduced several unique products that accommodate the varying demands of the fire protection industry and help manage fire safety systems more efficiently, resulting in more reliable systems that save resources. At AGF, we are continually working in the field to improve existing products and deliver innovative, reliable, and code compatible fire protection products for commercial and residential fire sprinkler systems worldwide. Our product line includes: PURGENVENT™, COLLECTANDRAIN®, CORRINSITE™, TESTANDRAIN®, RemoteTEST®, Inspector'sTEST™, RiserPACK™, and TESTANSAVE™

American AVK Company

2155 Meridian Boulevard
Minden, Nevada 89423
Tel: 775.552.1400
FAX: 775.783.1031

Email:
droe@avkus.com

Website:
www.americanavk.com

Founded:
1985

Primary Products/Services:
Valves and Hydrants

Market Area:
North and South America

Hours of Operation:
8:00 a.m.-5:00 p.m.

Management:
Al Jurkonis, President
David Roe, Business Unit Manager
Tel: 775.552.1430
Email: droe@avkus.com

Company Profile:

American AVK is a leading US manufacturer of gate valves, fire hydrants and accessories for the water, wastewater, fire protection and irrigation industries.

AVK was one of the first valve manufacturers in the world to develop and design the Resilient Seated Gate Valve. AVK is at the forefront of technology for products serving the Water Works and Fire Protection Industries. American AVK was incorporated in 1985 to introduce AVK gate valves to North America. AVK is in a state-of-the-art 180,000 sq. ft. manufacturing facility in Minden, Nevada. American AVK is a subsidiary of the AVK Group of Companies, a global manufacturer of valves, hydrants and accessories for the Water Works, Waste Water, Fire Protection and Natural Gas Industries.

American Backflow Products Company

PO Box 37025
Tallahassee, Florida 32315
Tel: 800.575.9618

Website:
www.backflowparts.com

Founded:
1976

Hours of Operation:
8:00 a.m.-6:00 p.m. M-F EST

Management:
Mark Inman, COO
Email: imark@backflowparts.com

Company Profile:

American Backflow Products Company is your complete source for backflow preventer repair parts, accessories and enclosures. Founded in 1976, our company is the nation's leading backflow preventer specialist, trusted by thousands of technicians, plumbing contractors, fire line contractors, irrigation contractors, building managers and city officials across the country. Our dedication to providing the most comprehensive selection of backflow preventer repair parts is second to none and only matched by the knowledge of our highly trained staff. We carry nearly every imaginable part for all the major brands of backflow preventers. Whether you have Ames, ARI, Conbraco Apollo, CLA-VAL, Febco, Flomatic, Hersey, Watts,

Wilkins, Viking or Rain Bird equipment, we stock the repair parts you need. Our Assembly Repair Matrix makes it easy to find the correct repair parts, repair procedures or specification sheets for all current backflow prevention assemblies. Select your manufacturer and model and all the information you need to repair the assembly will be displayed. If you are ordering parts online, simply select the order form button, fill it out and email it to us and a member of our staff will contact you within 24 hours to complete your order.

We use fast, reliable and insured shipping couriers to get your backflow parts to you, on time – every time anywhere in the country or around the world. We guarantee same day shipping and our website even provides UPS tracking so you'll know where your order is and when it will arrive.

Anvil International & Smith-Cooper International

2 Holland Way
Exeter, NH 03833
Tel: 603.418.2800

Website:
www.anvilintl.com

Founded:
1850

Primary Products/Services:
Pipe connections, Grooved couplings and fittings, valves, hangers, strut framing, seismic bracing, flexible sprinkler connections, engineered hangers, and fabrication machinery.

Market Area:
Domestic USA and International

Hours of Operation:
8:00 a.m.-5:00 p.m., Mon.-Fri.

Management:
Jason Hild - CEO
Dean Taylor - Executive VP of Sales

Phil Schechinger - VP of Fire Protection Sales

Sales Contact:
Customer Service
Email: customerservice@anvilintl.com

Company Profile:

Together, Anvil International and Smith-Cooper International provide the highest-quality PVF products and services with integrity and dedication to superior customer service. Anvil is one of the largest and most complete manufacturers of pipe fittings, couplings, pipe hangers and piping support systems in the world. Smith-Cooper is a leading designer and provider of valves, fittings and related products. The combined company's latest portfolio of global brands includes AFCON®, Anvil, Anvil EPS, AnvilPress, Anvil-Strut, Basic-PSA, Beck, Catawissa, Cooplok, Cooplet, FlexHead, FPPI, Gruvlok, J.B. Smith, Merit, Megawatt, North Alabama Pipe, SCI, Sharpe, SPF/Anvil and SprinkFLEX. For more information, please visit www.anvilintl.com and www.smithcooper.com.

APEX Pumping Equipment, Inc.

720 Heartland Drive, Unit P
Sugar Grove, Illinois 60554-9864
Toll Free: 866.563.2739
Fax: 630.466.4499

Website:
www.262apex.com

Email:
sales@262apex.com

Founded:
1996

Primary Products/Services:
Fire Pumps Equipment Sales, Service, Annual Testing, Valves, Tanks, Nitrogen Generators, Corrosion Inhibitor, Controllers, Pump House Packages, Backflow Prevention

Market Area:
IL, IN, MI, MN, WI, FL, NE, IA, ND, SD, OH, and KY.

Hours of Operation:
Mon.-Fri. 8:00 a.m.-5:00 p.m. & 24 hr. emergency service

Management:
Brad Clemmons, President
Vince Rodriguez, Vice President
Bruce Jacobson, Sales Manager

Sales Contact:
Bruce Jacobson
Email: bjacobson@262apex.com

Company Profile:

Founded by Brad Clemmons in 1996, APEX has grown & expanded its capabilities, as well as territory for the fire protection community,

covering several states in the Midwest and now in Florida! Employing over 20 TEAM members that are selling & servicing nearly everything in the fire pump equipment room! We also supply tanks both above and in-ground, fiberglass, poly and steel. Corrosion issues? No problem. We can provide Nitrogen generation equipment. Need a valve in or out of the pump room? We stock it! No project is too big or too small when it comes to fire pump equipment. From UL listed residential fire pumps to fully enclosed fire pump equipment systems. Need a fire pump controller? Single phase 120 volt up to 4160 volt. Reduced voltage with or without transfer switch. We can walk you through your needs and get you taken care of. If it breaks down, call us. We have 24-hour emergency service! 630.392.



ARGCO (Allied Rubber & Gasket Company)

3145 Tiger Run Court
Carlsbad, California 92010
Tel: 760.854.1015
Toll-Free: 800.854.1015
Fax: 800.924.5922

Website:
www.argco.com

Founded:
1981

Primary Products/Services:
Fire Sprinkler Specialties, Fire Equipment, Piping Tools, Flexible Sprinkler Drops, Thread Sealants, Hangers & Fasteners, Pipe Fittings and Valves

Market Area:
International

Hours of Operation:
6:00 a.m.-4:00 p.m. PST, Mon.-Fri.

Management:
Frank Bishop, Sales Manager
Chris Mengel, Sales
Lawrence Kent, Sales
Tom Keigwin, Sales,
Gustavo Cedillos, Sales

Sales Contact:
Frank Bishop, Sales Manager
Tel: 800.854.1015
Fax: 800.924.5922

Company Profile:
Serving the industry since 1981, ARGCO's outside-the-box philosophy sets this company apart from the rest. Innovative products available nowhere else, great value on everyday sprinkler items within equal quality at half the price of the competition. The product line includes ARGCO's

own brand of quality steel pipe working tools and replacement parts, flexible sprinkler drops, grooved pipe couplings and fittings, valves, thread sealants, and a great selection of fire sprinkler specialties. ARGCO.com offers customers a state-of-the-art online shopping experience that is unparalleled in the industry.

Asurio, Inc.
P.O. Box 20747
Boulder, CO 80308
Tel: 877.444.1488

Website:
www.asurio.com

Email:
info@asurio.com

Founded:
2007

Primary Products/Services:
Life Safety Inspection & Data Collection Software

Market Area:
Global

Hours of Operation:
M-F 6 a.m.-6 p.m. MDT

Management:
Top Myers, President

Sales Contact:
Jack Coffelt, Business Development Manager
Email: jack@asurio.com

Company Profile:
Developed by USA-based Asurio, Inc., the BirdDog Inspection & Data Collection System is one of the most powerful and versatile inspection systems on the market. BirdDog is cloud-based; offers NFPA 25, 10 & 72 inspections, and many more; and accommodates inspections for multiple industries, regions & inspection and data collection needs. The BirdDog Inspection System automates & streamlines gathering inspection data in the field, and the management, sharing, and reporting of inspection data to ensure compliance with regulations, risk management, or asset management. The BirdDog field interface operates on Apple, Android, and Microsoft platforms. The BirdDog Inspection System results in streamlined, more accurate inspections, improved compliance, minimized risk, savings in time & money, improved productivity, and more. Asurio is a Microsoft Partner, and offers world-class cloud hosting & security on the Azure platform.

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Brecksville, Ohio 44141
Tel: 216.447.5330

Website:
www.BlazeMaster.com

Email:
blazemaster@lubrizol.com
www.lubrizol.com/cpvc

Founded:
1984

Primary Products/Services:
BlazeMaster® Fire Protection Systems and freezemaster™ Antifreeze

Management:
Lainey Liotta, Fire Protection Market Manager

Company Profile:
Lubrizol has 40 years of fire protection expertise and nearly 100 years of chemical engineering leadership. Best known for its BlazeMaster® CPVC, the most specified nonmetallic fire sprinkler piping system in the world, Lubrizol also manufactures UL-listed freezemaster™ antifreeze, which offers fire sprinkler systems superior protection from freezing temperatures and corrosion.

Brooks Equipment

10926 David Taylor Drive
Ste 300
Charlotte, North Carolina 28262
Tel: 704.916.2474

Website:
www.brooksequipment.com

Buckeye Fire Equipment

1170 Corporate Dr W Ste 201
Arlington, Texas 76006-6813
Tel: 817.633.3626

Website:
www.buckeyefire.com

BuildingReports

1325 Satellite Blvd. Ste 1607
Suwanee, Georgia 30024
Tel: 770.495.1993
Website: www.buildingreports.com

Founded:
2000

Primary Products/Services:

Inspection and compliance reporting software

Market Area:
Worldwide

Hours of Operation:
8:00 a.m.-5:00 p.m. ET Mon-Fri.

Management:

Jason Kronz, President & CTO
Dwight Wills, V.P., Sales & Marketing
Sales Contact:
Dwight Wills, V.P., Sales & Marketing
Tel: 770.495.1993
Email: sales@buildingreports.com

Company Profile:

Building safety compliance is critical to service companies, building owners and fire and safety officials who are charged with safeguarding occupants. BuildingReports' leading mobile and online inspection reporting solutions enable inspectors to quickly gather data on fire and life safety devices to ensure they are working properly and meet code requirements or identify actions needed to meet compliance through easily verifiable inspection reports. With over four million inspection reports to date, more than 15 billion square feet of floor space in over 1 million buildings, and over 400 million devices represented, BuildingReports has earned its reputation as the most trusted name in compliance reporting.



Bull Moose Tube

1819 Clarkson Road
Chesterfield, Missouri 63017
Tel: 636.537.2600

Website:
www.bullmoosetube.com

Email:
nate.carruthers@bullmooseindustries.com

Founded:
1962

Primary Products/Services:
Sprinkler Pipe

Market Area:

North America

Hours of Operation:

8:00 a.m.-5:00 p.m. M-F

Management:

Tom Modrowski, President & CEO
John Krupinski, CFO
Andy Annakin, Executive Vice President & Chief Commercial Officer

Sales Contact:

Dave Weinrich, Director of Sales – Fire Protection
Tel: 636.537.2600
Email: dave.weinrich@bullmooseindustries.com

Company Profile:

Bull Moose was founded in 1962, building right from the start on such core values as reliable quality, stable production and exemplary service. The following decades have seen Bull Moose Tube grow from a single plant in Missouri to eight production operations from coast to coast. Those far-reaching facilities enable us to be particularly well positioned for responsive service that sets the standard for the industry.

Bull Moose Advantages:

- UL listed (US & Canada) and FM Appro.
- ASTM A135 and A795 Type E. Grade A Certified.
- Complies with NFPA 13, 13R and 14.
- Industry-leading hydraulic characteristics.
- CRR of 1.0 and greater.
- All pipe NDT weld tested
- We have the most stocking locations in the industry, for best delivery and availability.
- Plain end or roll groove.
- EddyGuard II® bacterial resistant internal coating.
- Custom Length Options.
- Hot dipped galvanization
- Reddi-Pipe® red pipe to eliminate field painting.
- Compatible for use in wet, dry, pre-action and deluge sprinkler systems.

C-Aire Compressors

380 W 1st St Dresser, WI 54009-9042 US
Tel: 651-462-3440; 800-762-2247
Fax: 651-462-1232

Website:
http://www.cairecompressors.com

Email:
sales@carieinc.net

Founded:
1979

Product & Services:

Air compressors, Quiet compressors, Dry Air compressors, Base plate compressors, Oil Lubricated tank compressors. Air maintenance

devices. Compressor maintenance and repair service.

Market Area:

North America

Management:

Jason Hedeem, CEO

Sales Contact:

Tom Blair, Sales Director

Company Profile:

C-Aire is a leader in expert service, guaranteed quality, and breakthrough innovation in the Fire protection dry sprinkler market. Founded over 42 years ago, owners Jason and Carin Hedeem built the company on the core values of integrity, accountability, and a passion for fulfilling customer needs. Products are manufactured with the highest of standards from design to delivery. Constantly seeking to introduce innovations that simplify processes and solve industry challenges has become the hallmark of C-Aire. Call C-Aire today and get connected within seconds to a highly trained representative who will assist you with all your needs. Visit our website to see our complete product and service offerings that include:

Quiet Series – perfect for apartment buildings, nursing homes, institutions, and office buildings

Dry Series – targeted specifically for corrosion free applications and refrigerated/freezer facilities.

AMD Gen 3 with Leak Detection™ - set pressure in seconds and measure air leaks to maintain optimal dry sprinkler system performance.

Chicago Backflow, Inc

12607 S. Laramie Avenue
Alsip, Illinois 60803
Tel: 708.389.5600

Website:

www.backflow.com

Email:

contact@backflow.com

Founded:

1993

Primary Products/Services:

Backflow Prevention Service, Testing, Installation and Inspection

Market Area:

Northern Illinois and Northwest Indiana

Hours of Operation:

8:00 a.m. - 4:30 p.m. Mon.-Fri.

Management:

Michael Eisenhauer, President
Douglas Eisenhauer, V.P.

Sales Contact:

Barb Jonas, Office Manager

Company Profile:

Chicago Backflow, Inc. is the Premier Backflow Testing Company. We have been serving Northern Illinois and Northwest Indiana since 1993. We are dedicated to protecting your drinking water.

Offering full-warranty backflow testing & service. Any and all repair parts, labor and return trips are covered. Never worry about costly repairs to your backflow preventer. We carry over \$400,000 in inventory parts and are available 24/7.

CB Marketing, Inc. (A CBI Company)

12559 South Laramie Avenue

Alsip, Illinois 60803

Tel: 708.202.0033

Fax: 708.385.5415

Website:

www.cbmarketing.com

Primary Products/Services:

Mfg of 13D pumps and Mfg Representatives of specialty products for fire protection

Market Area:

Nationally for 13D Pump Systems

Hours of Operation:

8:00 a.m.-4:30 p.m. Mon.-Fri., 24/7 emergency service

Management:

Michael Eisenhower, President

Douglas Eisenhower, V.P.

Megan Demereckis, Product Manager

Nick Smith, Sales Representative

Sales Contact:

Sales/Quote Contact:

Megan Demereckis or Nick Smith

New Product Opportunities:

Donald J. Smith

Tel: 708.202.0033

Company Profile:

CBM designs and manufactures Legend 13D pumps and serves as a manufacturers' rep and service organization for Patterson Fire Pumps, Fire Pump Controls (Master and Others), Steel Water Storage Tanks, pressure vessels and polypropylene 13D tanks, The CBM group also handles fire pump control replacements and repairs. CBM specializes in new product launches and market recaptures for the principals we represent.



Core & Main Fire Protection

1830 Craig Park Court

St. Louis, Missouri 63146

Tel: 800.492.6909

Website:

www.coreandmainfire.com

Primary Products/Services:

Full-line supplier and fabricator

Market Area:

National

Hours of Operation:

8:00 a.m.-5:00 p.m., Mon.-Fri.

Management:

Brad Cowles, President

Hank Evans, Regional Director of Operations

Derek Allen, Regional Director West

Lawson Brown, Regional Director East

Bradley Moss, Regional Director Northeast

Dave Stevens, Senior Manager, Business

Development

Sales Contact:

Hank Evans, Regional Director of Operations

Email: hank.evans@coreandmain.com

Company Profile:

Core & Main Fire Protection offers a full array of fire protection products and services. With an ever-growing footprint, our strategically located supply and fabrication facilities maintain vast inventories and enable us to provide superior customer service along with today's technology. Our fabrication facilities are backed by strict quality control procedures and offer custom fabrication to meet the needs of your next project.

**CORE & MAIN FIRE PROTECTION
 BRANCH LOCATIONS:**

Mobile, Alabama

4210 Halls Mill Rd.

Mobile, AL 36693

Tel: 251.406.8941

Fax: 251.661.7804

Phoenix, Arizona

1450 E Buckeye Rd.

Phoenix, AZ 85034

Tel: 602.256.0050

Fax: 602.256.7117

Hayward, California

2407 Industrial Parkway W

Hayward, CA 94545

Tel: 510.441.1650

Fax: 510.441.1620

San Francisco, California

111 Toland St.

San Francisco, CA 94124

Tel: 415.431.8722

Fax: 415.431.8567

Sacramento, California

1120 Blumenfeld Drive

Sacramento, CA 95815

Tel: 916.565.0466

Fax: 916.565.1852

Fresno, California

4710 E Commerce Ave.

Fresno, CA 93725

Tel: 559.441.7171

Fax: 559.441.7175

La Habra, California

751 E Lambert Rd.

La Habra, CA 90631

Tel: 562.690.8800

FAX: 562.690.1419

Lodi, California

1625 S Stockton St.

Lodi, CA 95240

Tel: 209.334.9768

Fax: 209.334.9773

Fontana, California

15535 Arrow Route

Fontana, CA 92335

Tel: 909.320.5306

Fax: 909.356.8599

Denver, Colorado

4735 Leyden St.

Denver, CO 80216

Tel: 303.305.4507

Fax: 720.941.4347

Windsor, Connecticut

1220 Kennedy Rd. Ste. 2

Windsor, CT 06095

Tel: 860.688.1780

Fax: 860.688.1784

Tampa, Florida

1801B Massaro Blvd.

Tampa, FL 33619

Tel: 813.626.4904

Fax: 813.626.6912

Orlando, Florida

3655 Old Winter Garden Rd.
Orlando, FL 32805
Tel: 407.299.2275
Fax: 407.298.5038

Palm Beach, Florida

1751 Avenue L
Riviera Beach, FL 33404
Tel: 561.863.5600
Fax: 561.845.6120

Miami, Florida

10810 NW 92nd Terrace Ste. 108
Medley, FL 33178
Tel: 305.477.2383
Fax: 305.805.4923

Jacksonville, Florida

11310 Distribution Ave. W
Jacksonville, FL 32256
Tel: 904.260.4705
Fax: 904.260.4644

Atlanta, Georgia

2157 Tucker Industrial Rd.
Tucker, GA 30084
Tel: 770.414.1212
Fax: 770.414.1883

Chicago, Illinois

5144 W 73rd St.
Bedford Park, IL 60638
Tel: 708.728.9793
FAX: 708.728.9826

Indianapolis, Indiana

8615 E 33rd St.
Indianapolis, IN 46226
Tel: 317.898.4879
Fax: 317.898.4868

Columbia, Maryland

9325 Snowden River Pkwy #C
Columbia, MD 21046
Tel: 410.290.8020
FAX: 410.290.8019

Glen Burnie, Maryland

6711 Baymeadow Dr. Ste. E-2
Glen Burnie, MD 21060
Tel: 410.787.2810
Fax: 410.787.2815

Brockton, Massachusetts

1123 Pearl St.
Brockton, MA 02301
Tel: 508.894.0130
Fax: 508.894.0139

Quincy, Massachusetts

210 Ricciuti Dr.
Quincy, MA 02169
Tel: 617.472.4575
Fax: 617.472.1612

St. Louis, MO

13551 NW Industrial Dr.
Bridgeton, MO 63044
Tel: 314.291.5055
Fax: 314.291.5084

Salem, New Hampshire

50 Northwestern Dr.
Salem, NH 03079
Tel: 603.685.3200
Fax: 603.685.3206

Lyndhurst, New Jersey

700 Schuyler Ave.
Lyndhurst, NJ 07071
Tel: 201.939.1100
Fax: 201.939.6095

Westville, New Jersey

1050 Broadway
Westville, NJ 08093
Tel: 856.742.9000
Fax: 856.742.1761

Albany, New York

75 Cohoes Ave.
Green Island, NY 12183
Tel: 518.270.2159
Fax: 518.270.8384

Garden City, New York

586 Commercial Ave.
Garden City, NY 11530
Tel: 516.222.8008
Fax: 516.222.9234

Bronx, New York

1536 Southern Blvd. Ste. 1
Bronx, NY 10460
Tel: 929.358.7610
Fax: 904.339.9338

Brooklyn, New York

729 Hicks St.
Brooklyn, NY 11231
Tel: 718.669.7600
Fax: 718.669.7601

Maspeth, New York

58-58 56th St.
Maspeth, NY 11378
Tel: 718.456.7877
Fax: 718.456.7852

Charlotte, North Carolina

75 Odell School Rd. S
Concord, NC 28027
Tel: 704.784.4700
Fax: 704.789.9288

Cleveland, North Carolina

10230 Statesville Blvd.
Cleveland, NC 27013
Tel: 704.278.1000
Fax: 704.278.4312

Las Vegas, Nevada

4035 W Oquendo Rd.
Las Vegas, NV 89118
Tel: 702.382.0331
Fax: 702.382.0671

Cincinnati, Ohio

4325 Mulhauser Rd. Ste. 6
Fairfield, OH 45014
Tel: 513.642.7005
Fax: 513.860.1245

Portland, Oregon

12670 SW Leveton Dr.
Tualatin, OR 97062
Tel: 503.404.2650
Fax: 503.691.6001

Providence, Rhode Island

225 York Ave.
Pawtucket, RI 02905
Tel: 401.490.9670
Fax: 401.490.6272

Memphis, Tennessee

3634 Cherry Rd.
Memphis, TN 38118
Tel: 901.745.3106
Fax: 901.370.6920

Nashville, Tennessee

413 Woodycrest Ave.
Nashville, TN 37210
Tel: 615.932.5656
Fax: 615.736.2760

Dallas, Texas

9010 Sterling St
Irving, TX 75063
Tel: 972.830.9370
Fax: 972.871.1365

Houston, Texas

5823 Thomas Rd.
Houston, TX 77041
Tel: 713.937.4568
Fax: 713.937.0493

San Antonio, Texas
 6215 Krempen Ave.
 San Antonio, TX 78233
 Tel: 210.247.4940
 Fax: 210.637.6682

Oklahoma City, Oklahoma
 8401 SW 15th St.
 Oklahoma City, OK 73128
 Tel: 405.506.6206
 Fax: 405.495.2016

Salt Lake City, Utah
 275 W 2855 S
 Salt Lake City, UT 84115
 Tel: 385.419.3950
 Fax: 801.467.4099

Springfield, Virginia
 8080 Alban Rd. Unit D
 Springfield, VA 22150
 Tel: 703.270.4595
 Fax: 703.440.5042

Seattle, Washington
 3002 Lind Ave. SW
 Renton, WA 98057
 Tel: 253-518-2560
 Fax: 425.251.0362



Croker Division

Fire-End and Croker Corporation
 7 Westchester Plaza
 Elmsford, New York 10523
 Tel: 914.592.3640
 Toll-Free: 800.729.3473
 Fax: 914.592.3892

Website:
www.croker.com

Email:
info@croker.com

Founded:
 1911

Primary Products/Services:
 Fire Protection Equipment

Market Area:
 Domestic/International

Hours of Operation:
 M-F 8:30 a.m.-4:30 p.m.

Management:
 Paul Sposato, President
 Douglas Loew, VP Export Sales
 Peter Levine, VP, Marketing

Sales Contact:
 Peter Levine

Company Profile:
 For over a century, Croker has manufactured and supplied the highest quality Fire Hose and Standpipe Equipment available in the industry. Croker continues to be an industry leader in quality products as well as dependable service. Our Croker catalog provides building owners, architects, engineers, distributors, and contractors with a clear and comprehensive specification and purchasing reference guide. Our primary warehouse is in Elmsford, New York. We maintain inventory in Dallas, Texas; Detroit, Michigan; Miami, Florida; Cleveland, Ohio; and Wilmington, Delaware. The Croker product line includes Hose Valves, Pressure Regulating Valves (Pilot, Field Adjustable and Factory Set), Fire Department Connections (Flush, Exposed, Freestanding, Storz, High-Pressure), Fire Pump Test Connections, Roof Manifolds, Hose Rack & Reel Assemblies, Cabinets, Extinguishers, Industrial Monitors, Nozzles, Grooved Couplings and Fittings, Adapters, ITM Equipment, and much more. Because our equipment is critical for protecting lives and property, we are continually striving to maintain and improve product quality year after year. Choose Croker for the finest quality products, competitive pricing, and exceptional service.

REGIONAL WAREHOUSES:

Croker Texas

1110 South Airport Circle-Suite 110
 Euless, Texas 76040
 Tel: 817.354.9900
 Toll-Free: 877.354.9905
 Fax: 817.545.0055
 Max Lombard, Regional Sales Manager
 Jake Lombard, Warehouse Manager

Croker Florida

4038 NE 5th Terrace Unit C
 Oakland Park, Florida 33334
 Tel: 954.314-8973
 Fax: 954.314.8974
 Joseph Benlolo, Regional Sales Manager



CST Industries, Inc

903 E 104th Street
 Suite 900
 Kansas City, Missouri 64131
 Tel: 844-44-TANKS
 Fax: 913.621.2145

Website:
www.cstindustries.com

Founded:
 1893
Primary Products/Services:
 Fire Protection Storage Tanks

Market Area:
 Global

Hours of Operation:
 8:00 a.m.-5:00 p.m. Mon.-Fri.

Management:
 Mike Polsin, Director of Sales, Water/Wastewater

Sales Contact:
 Weston Opat, Central Regional Sales Manager
 Tel: 913.669.0604
 Email: wopat@cstindustries.com

Company Profile:

CST Industries, Inc. (formerly Columbian TecTank®/Columbian Steel Tank Company®) offers Fire Water Tanks for Commercial, Municipal, and Industrial Applications. With over 350,000 tanks in 125 countries, no other company can match CST's liquid storage tank design, manufacturing, and construction expertise. CST's factory-applied proprietary coating technologies are the best in the business and have been field proven for more than 50 years.

CST leading brands, TecTank™, Columbian TecTank®, & AQUASTORE®, meet or exceed NFPA 22, FM, LPS, AWWA, USACOE & other industry standards & are manufactured in ISO 9001:2015 certified facilities. Tanks are available for construction by customer, dealer or CST with or without accessories.

Decoshield Systems, Inc.

3050 SW 14th Place #3
 Boynton Beach, Florida 33426
 Tel: 800.873.0894
 Fax: 800.585.3894

Website:
www.decoshield.com

Email:
info@decoshield.com

Primary Products/Services:
 Decorative cover for fire sprinkler systems

Management:
 Linda Camm, President

Sales Contact:
 Justin Penney
 Email: justin@decoshield.com

DEWALT

701 E Joppa Rd,
Towson, MD 21286
Tel: 800-433-9258

Website:

<http://www.dewalt.com>

Primary Products/Services:

Power Tools, Anchors and Fastening

Market Area:

Global

Hours of Operation:

8:00 a.m.-5:00 p.m. EST,
Mon.-Fri.

Management:

DEWALT Industrial Tool Co.

Sales Contact:

Alex Schickling, Fire Protection Manager
Email: Alex.Schickling@Dewalt.com

Company Profile:

DEWALT is a leading manufacturer of industrial corded and cordless power tools, power tool accessories, and hand tools. As an innovation leader, you can find solutions for OSHA Silca Dust Compliance, FlexVolt for high powered applications, cast-in-place concrete anchors, mechanical post installed anchors, and jobsite safety focus with Perform and Protect.

DEWALT currently has 7 manufacturing locations in the USA, 44 total for Stanley Black and Decker, and remains committed to domestic manufacturing and produced over 400 million individual units of Power Tools, Hand Tools, Storage and Accessories in the United States with global materials since 2016. Visit the website to learn more about DEWALT products Made in the USA with global materials.

DEWALT tools can be found nationally and internationally, wherever tools are sold. With more than 1,000 factory-owned and authorized locations, DEWALT has one of the most extensive service and repair networks in North America. For more information, visit <http://www.dewalt.com> or follow DEWALT on Facebook, Twitter, and Instagram.

Eaton's B-Line Business

509 W. Monroe St.
Highland, Illinois 62249
Tel: 800.851.7415

EDCOS, Inc.

330 Industrial Park
Mercedes, Texas 78570-4300
Tel: 956.565.5660
Fax: 214.975.1158

Website:

www.edcos.com

Email:

pedro.valdez@edcos.com

Founded:

2004

Primary Products/Services:

Grooved Fittings, Pipe Valves, Fittings, Hangers, Foam, Bladder Tanks, other.

Market Area:

New Mexico, Texas, Louisiana, Mexico, Central and South America, Caribbean

Hours of Operation:

8 a.m.-6 p.m. M-F

Management:

Pedro Valdez
Elvia Valdez
Raul Briones
Yvonne Gomes

Sales Contact:

Ania Garcia, International/Domestic Sales
Email: sales@edcos.com

Company Profile:

We distribute and supply UL & FM, CE, VdA, other, listed approved fire protection equipment; Pipe, Valves, fittings, Grooved, Welded, Flanged, Mechanical Joint Fittings, Hangers, Butterfly Valves, Wafer Valves, Fire Hydrants, Post Indicators, Nozzles, Fire Hose, Angle Valves. From underground materials to all above ground. We also provide foam concentrate, bladder tanks, ILBP foam pump skids, grooving tools. FM200, CO2, Novect1230. We also cover mechanical contractors.

Give us an opportunity. Se Habla Español.



Ferguson Fire & Fabrication

Corporate Headquarters
800 South 4th Avenue
Mansfield, Texas 76063
Tel: 817.276.7060
Fax: 817.473.3059

Website:

www.fergusonfire.com

Founded:

1989

Primary Products/Services:

Fire Sprinkler Material, Special Hazards, Engineered Products and Fabrication.

Market Area:

Continental United States plus Alaska

Hours of Operation:

7:00 a.m. - 4:30 p.m. Mon.-Fri.

Management:

George DiMatteo
V.P. - Fire Protection

Company Profile

Ferguson Fire & Fabrication supplies the highest quality fire protection equipment to our customers nationwide. With locations across the nation and industry leading associates, we have the reach to supply the most demanding fire protection jobs in the country. Many of our locations have fabrication capabilities and are ISO Certified, making us the largest ISO Certified fabricator in the country. We offer our customers world-class customer service and unmatched industry expertise. Our associates enthusiastically use their experience to make sure each warehouse location operates in the best interest of the customer and the needs of that local market. From core fire protection products and fabrication to engineered fire protection products, we offer customer access to one of the most comprehensive inventories in the industry. Our supply chain, digital capabilities and vendor partnerships allow us to provide customers with a forward-thinking competitive advantage. Ferguson Fire & Fabrication is a complete source for all fire protection needs.

Fire Tech Productions, Inc.

7986 B Cloy Road
Centerville, Ohio 45459
Tel: 937.434.3473

Website:

www.firetech.com

Contact:

Donna Pierron

Providing Training to the Fire Protection Industry since 1987!

Company Profile:

Fire Tech Productions specializes in Fire Alarm, Fire Sprinkler and Special Hazards training. From NICET exam prep to hands-on workshops, you will gain insight and understanding of the NFPA codes and how those requirements are put into practice in the field. Pass your exam and become a better technician! Workshops are led by experienced industry professionals.

FormLink Systems

14547 Brookfield Drive
 Fishers, Indiana 46040-9401
 Tel: 317.735.3345
 Fax: 317.735.3342

Website:

www.formlinksystems.com

Email:

sales@formlinksystems.com

Company Profile:

FormLink's easy to use inspection software saves you time and money. With form packages for NFPA-25, NFPA-72, fire extinguishers, and more, you can deliver professional reports in minutes, directly to your customers. Our NFPA and NFSA form licensing means you can continue to use the forms you know and trust. We also have the ability to create custom forms to satisfy any specific requirements outside of the standard forms. Get great software and exceptional customer service, all with less hassle. Make the choice that will change how you do business by partnering with FormLink Systems!

Fox Sprinkler Supply Corporation

951 Estes Court
 Schaumburg, Illinois 60193
 Tel: 847.524.8250
 Fax: 847.524.8262

Website:

www.foxsprinkler.com

Founded:

2000

Primary Products/Services:

Distribution/Fabrication

Market Area:

Illinois, Indiana, Iowa, Kentucky, Wisconsin, Minnesota,

Hours of Operation:

Mon 5:30 a.m.-5:00 p.m.
 Tue-Wed 4:30 a.m.-5:00 p.m.
 Th-Fri 5:30 a.m.-5:00 p.m.
 Sat 8:00 a.m.-12:00 p.m.

Management:

Danielle Sandfox, President
 Linda Menini Secretary
 Dan Rossol Operation Mgr.

Sales Contact:

Troy Kole
 Shannon Davis

Company Profile:

Fox Sprinkler Supply Corp. is a fire sprinkler

supply company with people dedicated to bringing the utmost in service to our customers. Employees with exceptional knowledge and over 20 years in experience in the fire sprinkler industry.



Gast Manufacturing, a Unit of IDEX Corporation

Address: 2300 M-139 Hwy
 Benton Harbor, MI 49022
 Phone: Main 269.926.6171
 Bo Coffman 941.416.0252

Website:

www.gastmfg.com

Email:

BCoffman@idexcorp.com

Founded:

1921

Primary Products/Services:

Gast designs and manufactures air compressors for Dry Pipe and Preaction sprinkler systems. Gast also provides training on air compressors for the sprinkler industry.

Hours of Operation:

Monday through Friday 8:00 AM to 5:00 PM EST

Management:

Sal Iaccino, Business Line Leader

Sales Contact:

Bo Coffman,
 Business Development Manager

Company Profile:

Since 1921, Gast Manufacturing, Inc. has been a leader in the design and manufacturing of quality air-moving products. We specialize in offering cost effective solutions for a wide variety of industries including industrial manufacturing, healthcare, and environmental cleanup applications. Gast's wide array of pneumatic products include vacuum pumps, compressors, air motors, gear motors, vacuum generators and regenerative blowers - all tailored to meet the many challenging applications of OEMs and end users worldwide.



General Air Products, Inc.

118 Summit Drive
 Exton, Pennsylvania 19341
 Tel: 610.524.8950
 Toll Free: 800.345.8207
 Fax: 610.524.8965

Website:

www.generalairproducts.com

Founded:

1936

Primary Products/Services:

Air compressors / Nitrogen generators / 13D Pump and Tank Systems / Air Maintenance Devices

Market Area:

Worldwide

Hours of Operation:

8:00 a.m. - 5:00 p.m. EST Mon.-Fri.

Management:

Raymond M. Fremont, President
 Dave English, Sales Director
 Raymond M. Fremont Jr., Marketing Director

Sales Contact:

David Fremont

Company Profile:

General Air Products, Inc. has been a leader in the fire protection industry for over 50 years. Manufacturing a complete line of dry pipe system filling equipment—including air compressors, nitrogen generators, and dry air generators—has uniquely positioned us as the authority for complete dry sprinkler system filling solutions. We also offer a line of single family 13D pump and tank systems. Our quality products come guaranteed with unparalleled customer service both before and after the sale. Visit us at www.generalairproducts.com or give us a call at 800-345-8207 for details, drawings, and more!

What You in a Dry Pi

Dependable

Reliable® has 100 years of valve experience. Today's Dry Pipe Valve lineup is as dependable as ever. Engineered, assembled, and tested in Liberty, South Carolina, USA, you can trust our performance. Our valves' compact



Model DDX-LP: Low-Pressure Mechanical Valve

The DDX-LP valve can improve water transit times after valve operation. In some cases, the DDX-LP valve eliminates the need for a quick opening device. Low supervisory pressure reduces air compressor and nitrogen generator size.

DDX-LP				
Valve Size	Pressure Rating	End Connections		
		GxG	FxG	FxF
2", 2-1/2", 3"	250 psi	•		
4", 6"	300 psi	•	•	•
8"	250 psi	•		•

Do You Need Dry Pipe Valve Options

compact footprint saves valuable riser room space, and the external reset reduces setup time.

See our website to learn more about how our Dry Pipe Valve line can support you every step of the way: specifying, designing, installing, and servicing.



**Model FX: Standard Pressure
Differential Valve**

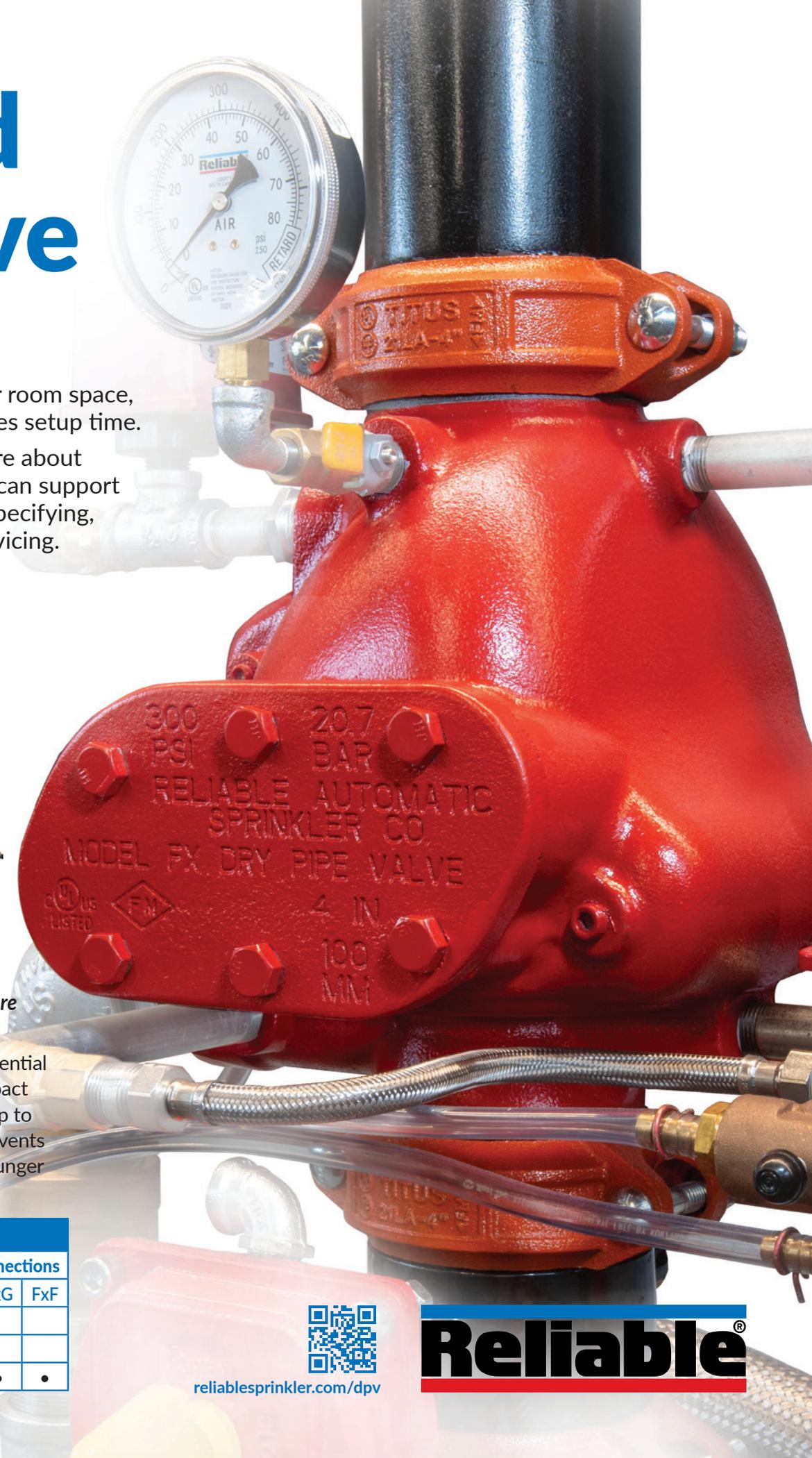
The FX valve has a simple differential design for easy setup. It is compact and lightweight, making it a snap to install. A protective housing prevents accidental operation of reset plunger and damage during shipping.

FX				
Valve Size	Pressure Rating	End Connections		
		GxG	FxG	FxF
2"	250 psi	•		
2-1/2", 3"	300 psi	•		
4", 6"	300 psi	•	•	•



reliablesprinkler.com/dpv

Reliable®



Guardian Fire Equipment

3430 NW 38th Street
Miami, Florida 33142
Toll-Free: 800.327.6584
Fax: 800.827.3869

Primary Products/Services:

Fire Standpipe Equipment

Market Area:

Worldwide

Management:

Richard H. Childress, President
Lisa C. Peterson, Vice President

Harrington, Inc.

2630 West 21st Street
Erie, Pennsylvania 16506
Tel: 814.838.3957
Toll Free: 800.553.0078

Website:

www.hydrantstorz.com

Email:

paulc@harrinc.com

Email:

paulc@harrinc.com

Founded:

1988

Primary Products/Services:

Hydrant Storz adapter assemblies, Water supply connections, gate valves, Storz, threaded, and flange adapters, gated wyes

Market Area:

Worldwide

Hours of Operation:

8:00 a.m.-5:00 p.m. M-F

Management:

Tim Harrington, Vice President

Sales Contact:

Paul Carpenter, VP of Sales

Company Profile:

Harrington, Inc. is a manufacturer of Hydrant Storz assemblies, intake valves, gate valves, adapters-threaded, adapters-Storz, and adapters-flange, suction hose, wyes, Siamese, Storz couplings and adapters. Send inquiries to: info@harrinc.com



The Hose Monster Company

1330 Ensell Rd
Lake Zurich, IL 60047
Tel: 847.434.0101
Toll Free: 888.202.9987
Fax: 847.434.0073

Website:

www.hosemonster.com

Founded:

1996

Primary Products/Services:

Fire pump and flow test equipment

Market Area:

Global

Hours of Operation:

Mon.-Thurs. 8:00 a.m.-5:00 p.m. CST,
Fri. 8:00 a.m.-4:00 p.m.

Sales Contact:

Michael Anderson, Sales Manager

Company Profile:

The Hose Monster Company is dedicated to providing equipment, software and procedural solutions that make the jobs of maintaining water distribution systems and fire pump testing safe, accurate and simple. All our products are designed to give accurate information about the water supply that is available to fight a fire at any given moment.

HRS Systems, Inc.

208 Southside Square
Petersburg, Tennessee 37144
Tel: 931.659.9760
Fax: 931.659.9763

Website:

www.hrssystem.com

Email:

hass@hrssystem.com

Primary Products/Services:

Fire Protection Engineering Software

Company Profile:

HRS Systems, Inc. is a dynamic fire protection engineering software development and marketing entity. Our goal is to provide fire protection engineering software – second to none – worldwide. Accuracy of calculations and results are paramount, with ease of data entry and attention to user comments and suggestions

ranking a close second. Annual updates, at no extra charge, often introduce new features; the JOB COST ESTIMATOR is now included in both HASS® and COOSA® (below) as utilities. HRS Systems, Inc. presents:

- HASS® for hydraulic analysis of sprinkler systems
- JOB COST ESTIMATOR for cost estimating
- HASS HOUSE® for residential sprinkler analysis
- COOSA® for CO2 system analysis.

All of them are Windows-Based (32 & 64 bit) and available in both English and metric Units plus metric units/Spanish text.

Hydratec, Inc.

64 Haverhill Road
Windham, New Hampshire 03087
Tel: 603.434.0502
Fax: 603.434.1348

Website:

www.hydratecinc.com

Email:

al@hydracad.com

Founded:

1972

Primary Products/Services:

Fire Protection Design Software and Service using Revit or AutoCAD

Market Area:

Worldwide

Hours of Operation:

9:00 a.m. - 5:00 p.m. Mon.-Fri.

Management:

Alan Johnston, President

Sales Contact:

Art Dove, CAD Development Manager

Email: sales@hydracad.com

Company Profile:

Hydratec has been providing quality software and design services for over 45 years. Our complete line of software products, along with accessible and knowledgeable customer service, gives the Hydratec customer of any size or experience level an edge in design efficiency. Our software packages include HydraCAD for system design, HydraLIST for fabrication reports, HydraCALC for pipe sizing, HydraCALC-Sizer for pipe size estimating, HydraBID for price estimating, and HydraCAD-R for NFPA 13-D Systems and Hydratec for Revit for direct design, listing and calculations completely within a Revit model. These packages can be used separately, or as an integrated set to provide the best possible AutoCAD or Revit-based solution for 2D

or 3D design, BIM, coordination and true Revit content integration.

Inspect Point

24 4th Street
 Troy, New York 12180
 Tel: 888.287.1471

Website: www.inspectpoint.com

ITW Commercial Construction/Buildex-SAMMY

700 High Grove Blvd.
 Glendale Heights, Illinois 60139
 Tel: 630.694.4675

Website:
 www.itwbuildex.com

Founded:
 1967

Primary Products/Services:
 Pipe Hangers

Market Area:
 National

Hours of Operation:
 8:00 a.m. – 5:00 p.m. Mon.-Fri.

Management:
 J. Schneider, Nat'l Mktg Mgr.
 Ben Nolen, Product Mktg Mgr.

Sales Contact:
 Bryant Hope, Nat'l Sales Mgr.

Company Profile:

ITW Commercial Construction is a division of Illinois Tool Works, has been a leading manufacturer of fastener systems for the construction industry. Our mission is to provide value-added, innovative product solutions to help contractors and architects build high quality buildings. SAMMYS® suspended anchoring systems have been providing vertical and horizontal overhead structural attachment solutions for decades. They are manufactured to meet the design challenges of modern structures and are aesthetically compatible with green design principles seeking to provide borrowed lighting and space framing benefits. All Sammys are made here in the USA, using the Teks® and Tapcon® technology preferred by US contractors for years. Sammys are best known in the fire sprinkler industry, but are adaptable for use in plumbing, electrical and HVAC applications.

JG Innovations, Inc.

P.O. Box 8128
 Janesville, Wisconsin 53547-8128
 Tel: 608.314.8710
 Fax: 608.314.8712

Website:
 www.jgius.com

Email:
 sales@jgius.com

Founded:
 2009

Primary Products/Services:
 Soffi-Steel® System
 JGI Interlock™ Concealment Systems
 ALumA-Fit™ Concealment System

Market Area:
 Nationwide

Hours of Operation:
 8:00 a.m.-5:00 p.m. M-F

Sales Contact:
 Allen Stowers, President
 Tel: 608.314.8710
 Email: sales@jgius.com

Company Profile:

JG Innovations, Inc. offers the Soffi-Steel® and Interlock™ concealment systems for the purpose of concealing Fire Sprinkler Systems, Piping, Plumbing, HVAC, Finned Tube, Ductwork and Cable. The Soffi-Steel® and Interlock™ Concealment Systems are made in the USA, produced from A60/G90 galvanized steel and carry industry approvals and certifications in the US and Canada. While our custom fabricated enclosure systems are unsurpassed in retrofit applications, the flexible design makes it equally impressive for new construction projects. Utilize the Soffi-Steel® and Interlock™ Concealment Systems for applications in: • Universities • College Dormitories • Student Housing • PK-12 Schools • Nursing Homes • Assisted Living Communities • Affordable Housing • High-Rises/Condominiums • VA Hospitals and Clinics • Psychiatric Facilities • Detention Centers • Jails and Prisons • Residential Properties • Commercial Buildings

Johnson Controls, Fire Suppression

1400 Pennbrook Pkwy
 Lansdale, Pennsylvania 19446
 Tel: 215.362.0700
 Toll Free: 800.558.5236
 Fax: 800.877.1295

Website:
 www.Tyco-fire.com

www.Tyco-RapidResponse.com,
 www.SprinkCAD.com
 www.Ansul.com
 www.Pyrochem.com
 www.Grinnell.com
 www.OnlineTechXchange.com

Founded:
 1850

Primary Products/Services:
 Water & chemical based fire suppression product, fire grooved piping products, sprinkler system design software, training services.

Market Area:
 Global

Hours of Operation:
 8:00 a.m.-6:30 p.m. EST, M-F

Management:
 Chris Eichmann, V.P. & G.M.

Sales Contact:
 Michael Mottice, Director of Global Sales, Water & Mechanical
 Tel: 800.558.5236
 Fax: 800.877.1295

Company Profile:

Johnson Controls fire suppression solutions deliver an unmatched range of suppression systems, extinguishing agents, fire sprinklers and valves, design software, piping products, fittings, and fire-fighting equipment. We leverage our global scale and deep expertise to drive innovation, advance safety and solve the unique challenges of customers around the world. Our arsenal of brands includes some of the most trusted names in the industry, such as TYCO, RAPID RESPONSE, GRINNELL, SPRINKCAD, ANSUL, and CHEMGUARD.

Kennedy Valve

1021 E. Water Street
 Elmira, NY 14901
 Tel: 607.378.1429

Website:
 www.kennedyvalve.com

Email:
 barry.obrien@kennedyvalve.com

Founded:
 1877

Primary Products/Services:
 UL FM Gate Valves, Grooved Check Valves, Wafer BFs, Wafer Check Valves, Indicator Posts, Fire Hydrants

Hours of Operation:
 M-F 7:30 a.m.-5:00 p.m. EST

Management:
 Arne Feyling, VP GM
 Barry O'Brien, Nat'l Sales Mgr., Fire

Ken Brown, Fire Protection Market Mgr.

Sales Contact:

Barry O'Brien
Email: barry.obrien@kennedyvalve.com

Company Profile:

Kennedy Valve is both an iron foundry and machining center for valves and hydrants located in Elmira, New York. We make 24" and down UL listed and FM approved gate valves, butterfly valves, check valves, indicator posts, as well as fire hydrants. Additionally, we offer the industry's only factory installed OS&Y tamper switch, the KVOS2. See also cadlibrary.kennedyvalve.com.



The Metraflex Company

2323 West Hubbard Street
Chicago, Illinois 60612-1403
Tel: 312.738.3800

Website:

www.metrafire.com

Email:

jeremyw@metraflex.com

Founded:

1958

Primary Products/Services:

FireLoop, Seismic Breakaway Hanger

Market Area:

International

Hours of Operation:

8:30 a.m. - 5:00 p.m. CST Mon.-Fri.

Sales Contact:

Jeremy Wright, Product Manager
Email: jeremyw@metraflex.com

Company Profile:

Metraflex has been supplying piping specialty products since 1958. With the introduction of the UL listed FireLoop seismic expansion joint, Metraflex has brought its expertise in seismic expansion joints to the fire sprinkler industry. The introduction and rapid acceptance of the FireLoop for fire sprinkler systems, plus its compliance with NFPA 13 guidelines, has made it the seismic expansion joint of choice.

MGS USA LLC

11711 Oakspine
Ellicott City, Maryland 21042
Tel: 310.770.5209

Website:

www.fogo-zero.com

The Noble Company

7300 Enterprise Drive
Spring Lake, Michigan 49456
Tel: 800.878.5788
Fax: 231.799.8850

Website:

www.noblecompany.com

Founded:

1946

Hours of Operation:

8 a.m.-5 p.m. EST M-F

Management:

Dave Wormmeester, President
George Rudolph, National Sales Mgr.-Engineered Fluids

Sales Contact:

George Rudolph
Tel: 800.878.5788
Fax: 231.799.8850
Email: sales@noblecompany.com

Company Profile:

Founded in 1946, Noble Company manufactures premium-quality, innovative products for the Tile, Plumbing, Heating and Cooling, and Fire Sprinkler industries. Noble Company's Engineered Fluids Division manufactures freeze protection fluids for various applications such as Hydronic under-floor-heating, Solar Heating Systems, Geothermal Systems, and Fire Sprinkler Systems. Noble Company is an American-based company, manufacturing products in Michigan and Louisiana. Our products are designed and manufactured to exceed applicable industry standards and are engineered for reliability.

nVent CADDY

31700 Solon Road Solon, Ohio 44139
Phone: 440-248-0100

Website:

www.nVent.com

Founded:

1903

Primary Products/Services:

nVent CADDY is recognized as a leading provider

of innovative solutions; delivering technical superiority, ease-of-use, and lowest total installed cost. Solutions & Services include: Seismic Bracing Products and Engineered Services, hangers and supports for the Fire Protection, Mechanical, Plumbing and HVAC/R industries.

Market Area:

Global

Hours of Operation:

8 AM to 5 PM

Management:

Mark P. Fallico Jr., Director of Sales – USA
Electrical / Mechanical / Fire / Seismic
1.813.439.9709 Mobile
Mark.Fallico@nVent.com

Sales Contact:

Mike Osso 609-504-3301 Mobile,
Mike.osso@nVent.com

Company Profile:

nVent has industry-leading positions in industrial, commercial, residential, energy and infrastructure.

Our mission is to "Connect and Protect" our customers with inventive solutions, create safer systems and ensure a more secure world.

The name nVent reflects the legacy of innovation across our portfolio of brands that will serve as the foundation for the new company.

nVent employs approximately 9,000 people globally, with the main U.S. offices in Minneapolis, Minnesota.

PAC Pump & Systems, Inc.

106 Hobart St.
Hackensack, New Jersey 07601
Tel: 201.621.0500
Fax: 201.621.0506

Website:

www.pacpump.com

Founded:

2003

Primary Products/Services:

Fire pumps and controllers—sales and service.

Market Area:

New Jersey

Hours of Operation:

7:00 a.m. - 6:00 p.m. Mon.-Fri.

Management:

William Casey, President
Craig Pastore, Sales & Service
Cate Griffing, Inside Sales
Sales Contact: William Casey

Company Profile:

PAC Pump & Systems, Inc. is a distribution and service company whose dedicated team of

engineers, sales personnel, customer service representatives, project managers, machinist, mechanics and administrative personnel offers years of experience in supplying rotating equipment and services. We ensure our staff is prepared to meet the requirements of each and every customer by investing in education, training and state-of-the-art technology. Our customers benefit from our unparalleled problem- solving strategies that have developed through our many years of experience.



PACE Supply Corp.
 6000 State Farm Dr. Ste 200
 Rohnert Park, California 94928
 Tel: 877.934.3473

Website:
www.pacesupply.com/Divisions/FireProtection

Email:
twiitala@pacesupply.com

Founded:
 1994

Primary Products/Services:
 Plumbing, Fire Protection & Fabrication, Pipe, Valves & Fittings, Pipe Supports, International, Plumbing Finish Water Treatment, Wastewater, Waterworks, Residential and Commercial Hydronics, and Water Heater

Market Areas:
 Northern California & Hawaii

Hours of Operation:
 M-F 6:30 a.m.-5:00 p.m.

Management:
 Fire Protection Manager: Tim Wiitala

Sales Contact:
 Fire Sales
 Email: firesales@pacesupply.com

Company Profile:
 PACE is a locally & employee-owned wholesale supply company serving California and Hawaii with 20 wholesaler locations. PACE provides supplies to contractors and retailers. Our employee owners are proudly setting the PACE for supply and service!

PHD Manufacturing, Inc.
 44018 Columbiana-Waterford Road
 Columbiana, OH 44408
 Cell Phone: (574) 536-3857
 Phone: (800) 321-2736
 Fax: (330) 482-2763

Website:
www.phd-mfg.com

Email:
rickp@phd-mfg.com

Founded:
 1972

Primary Products/Services:
 PHD is a leading full line domestic manufacture of U/L, FM, MSS approved products for the Fire Protection, Mechanical, Industrial, Plumbing, and Electrical industries including: pipe hangers, beam clamps, CPVC straps, Seismic bracing, riser clamps, clevis hangers, two bolt clamps, threaded accessories, brackets, Strut Channel, and all accessories.

Market Area:
 U.S., Global

Hours of Operation:
 8:00 a.m.-5:00 p.m., Mon.-Fri.

Management:
 Jonathon Corvino, President
 Kyle Hartman, Vice President of Sales
 330.921.9362

Rick Persing, Nat'l Sales Manager, Sprinkler Division
 Gene Hancock, National Sales Manager, Electrical Division

Fire Protection Sales Contact:
 Rick Persing, Nat'l Sales Manager, Sprinkler Division
 Tel & Fax: 574.536.3857

Company Profile:
 PHD is the last private family-owned full line pipe hanger, Strut, and accessories manufacture left in the USA. After recent expansions PHD has over 200,000 Sq. ft. facility and approximately 28 consigned stocking warehouse locations to facilitate our service. To find solutions to fit your need. Call 1-800-321-2736 or send an e-mail to customerservice@phd-mfg.com today!

Plumbers Supply Company
 1000 E. Main Street
 Louisville, Ky. 40206
 Tel: 800.626.5133

Website:
www.plumbers-supply-co.com

Founded:
 1921

Primary Products/Service:
 Fire Protection, Plumbing, Hydronics, HVAC

Market Area:
 Kentucky, Tennessee, Indiana, Western West Virginia

Hours of Operation:
 Mon.-Fri. 7:00 a.m.-5:00 p.m.

Management:
 Brian Roberts, Outside Sales for Indianapolis area, Fire Protection Sales Manager, All locations
 Tel: 317.783.2981
 Cell: 317.557.1559
 Email: Brian.Roberts@plumbers-supply-co.com

Inside Sales: Indianapolis, Indiana
 Inside Sales Manager:

Jason Davis
 Tel: 317.472.8921
 Cell: 317.450.6764

Email:
Jason.Davis@plumbers-supply-co.com

Dale Sigler
 Tel:317.472.8903

Email:
Dale.Sigler@plumbers-supply-co.com

Cole Biggerstaff
Email:
Cole.Biggerstaff@plumbers-supply-co.com

Inside Sales: Louisville, Kentucky
 Inside Sales Manager:

Mike Newton
 Tel: 502.540.0332
 Cell: 502.817.2079

Email:
Mike.Newton@plumbers-supply-co.com

Beau Jones
 Tel:502.540.0332

Email:
Beau.Jones@plumbers-supply-co.com

Inside Sales: Lexington, Kentucky

Ronnie Wilson
Tel: 859.255.0700
Cell: 859.621.5278

Email:
Ron.Wilson@plumbers-supply-co.com

Inside Sales: Evansville, Indiana

Brent Mabrey
Tel: 812.425.3115
Cell: 812.305.3203

Email:
Brent.Mabrey@plumbers-supply-co.com

**Fire Protection Outside Sales, KY, TN,
So. IN, WV**

John Jutz
Tel: 502.540.0272
Cell: 502.376.0639

Email:
John.Jutz@plumber-supply-co.com

Company Profile:

Started in 1921 as Plumbing and Mill Supply house. Plumbers Supply has opened branches and mini-branches in over ten locations in our area. Plumbers Supply has been a fire protection supply house of steel pipe and fittings since its inception, but has had a dedicated fire sprinkler sales division since late 1980's.

Polymer Molding, Inc.

1655 West 20th Street
Erie, Pennsylvania 16502
Toll-Free: 800.344.7584
Fax: 814.455.0289

Website:
www.polymermolding.com

Founded:
1978

Primary Products/Services:
Product Protection

Market Area:
Worldwide

Hours of Operation:
8:00 a.m. - 5:00 p.m. Mon.-Fri.

Management:
Chris Vinson, Vice President, Sales



Potter Electric Signal Company

13723 Riverport Drive
St. Louis, Missouri 63043
Toll-Free: 314.595.6900
Fax: 314.595.6999

Website:
www.pottersignal.com

Email:
orders@pottersignal.com

Founded:
1898

Primary Products/Services:
Flow, Pressure, Tamper Switches, Corrosion Mitigation

Market Area:
Worldwide

Hours of Operation:
8:00 a.m. - 5:00 p.m. CST Mon.-Fri.

Sales Contact:
Tim Freiner, Vice President,
North American Sales
Email: sales@pottersignal.com

Company Profile:

Established in 1898, Potter Electric Signal Company produces a wide array of products including fire sprinkler monitoring systems, nitrogen generators, corrosion monitoring/testing, electronic fire systems, vault and safe security systems and boiler/chiller and industrial control products. At Potter, not only do we supply our customers with products that provide real world solutions for their unique needs, we strive to provide them unequalled service and technical support. Every employee at Potter is committed to provide the very best product and service available for the protection of life and property. Potter is THE Symbol of Protection.

Potter Roemer

PO Box 3527
City of Industry, California 91744
Tel: 626.855.4899

Website:
www.potterroemer.com

Founded:
1937

Primary Products/Services:
Fire Extinguishers, Hoses, Valve Cabinets

Market Area:
U.S.A.

Management:

George Brown,
Vice President Sales

Company Profile:

Potter Roemer has been the leading supplier of interior hose and standpipe equipment to the fire protection industry. From four regional shipping facilities, PotterRoemer has the largest uncommitted inventory in stock and available for your project.

Quick Response Fire Supply, LLC

11091 Air Park Road
Ashland, Virginia 23005
Tel: 703.975.8183

Website:
www.qrfs.com



Reliable Automatic Sprinkler Co., Inc.

103 Fairview Park Drive
Elmsford, New York 10523
Toll-Free: 800.431.1588
Fax: 800.848.6051

Website:
www.reliablesprinkler.com

Email:
info@reliablesprinkler.com

Founded:
1920

Primary Products/Services:
Sprinklers, Valves, Special Hazards/Systems,
System Components, and Fabrication

Market Area:
Worldwide

Management:

Kevin T. Fee – *President*
John McNamara – *V.P., Corporate Sales*
Kevin T. Fee, Jr. – *V.P., Sales - Americas*
Adam Robotham – *V.P., International Sales and Operations*
Rex Schwendiman – *V.P., System Components*
Steve Wolin – *V.P., Compliance/Product Technology*
F.J. Fee IV – *V.P., Marketing and Business Development*

Company Profile:

Reliable Automatic Sprinkler Co., Inc. is a manufacturer and distributor of fire protection equipment. Reliable manufactures the highest quality and most innovative fire sprinklers, valves and special systems on the market. Reliable also distributes a full line of best-in-class system components. All Reliable products are backed with premier customer service. Reliable's corporate headquarters is located in Elmsford, NY with manufacturing headquarters in Liberty, SC. Regional sales and distribution centers are located throughout the US and around the world.

CORPORATE OFFICE:

103 Fairview Park Drive
 Elmsford, NY 10523
 Tel: 864.843.1700
 Website: www.reliablesprinkler.com

CORPORATE MANUFACTURING FACILITY:

1470 Smith Grove Road
 Liberty, SC 29657
 Tel: 864.843.1700

DOMESTIC DISTRIBUTION:

Atlanta, GA (Norcross, GA)
 800.652.1819 Tel
 800.848.6052 Fax

Boston, MA (Walpole, MA)
 800.431.1588 Tel
 800.848.6051 Fax

Chicago, IL (Bloomingdale, IL)
 800.228.6274 Tel
 800.848.6053 Fax

Columbus, OH
 800.228.6274 Tel
 800.848.6053 Fax

Dallas, TX
 800.442.6742 Tel
 800.848.6054 Fax

Denver, CO
 877.440.2598 Tel
 877.205.7230 Fax

Houston, TX
 866.978.9965 Tel
 866.978.9979 Fax

Los Angeles, CA (Brea, CA)
 800.352.4365 Tel
 800.848.6055 Fax

Miami, FL (Miramar, FL)
 954.437.2520 Tel
 954.437.2289 Fax

Minneapolis, MN (Roseville, MN)
 877.827.2816 Tel
 877.827.3043 Fax

New York, NY (Elmsford, NY)
 800.431.1588 Tel
 800.848.6051 Fax

Orlando, FL (Longwood, FL)
 800.801.3097 Tel
 800.862.0934 Fax

Richmond, VA
 866.927.7775 Tel
 866.927.7776 Fax

San Antonio, TX (Schertz, TX)
 866.927.9939 Tel
 844.383.0015 Fax

Seattle, WA (Kent, WA)
 877.327.2563 Tel
 877.327.2574 Fax

Washington, DC (Capital Heights, MD)
 877.883.8831 Tel
 877.851.1553 Fax

WORLDWIDE DISTRIBUTION:

Australia (Adelaide)
 +61 8 8162 9555 Tel
 +61 8 8162 9359 Fax

Canada, Eastern (Ontario)
 800.790.6443 Tel
 800.790.6486 Fax

Canada, Western (British Columbia)
 604.542.1864 Tel
 604.542.1894 Fax

China (Shanghai)
 +86 21 5403 7021 Tel
 +86 21 5403 7022 Fax

Germany (Hamburg)
 +49 40 5589 81871 Tel
 +49 40 5589 81873 Fax

Mexico and Latin America
 800.442.6742 Tel
 800.848.6054 Fax

Poland (Sosnowiec)
 +48 (0) 32 66 18 285

Singapore
 +65 6635 8100 Tel
 +65 6734 3176 Fax

United Arab Emirates (Dubai)
 +971 4 880 8830 Tel

United Kingdom (London)
 +44 13 4231 6800 Tel

FABRICATION FACILITIES:

Denver, CO
 877.440.2598 Tel
 877.205.7230 Fax

Grand Prairie, TX
 972.352.6400 Tel
 972.352.6402 Fax

Portland, OR
 877.523.3178 Tel
 877.418.2498 Fax



Response Fire Supply

3100 West Central Avenue
 Santa Ana, California 92704
 Tel: 714.754.7100

Website:
www.responsefiresupply.com

Founded:
 2013

Products/Services:
 Fire Protection Supplies & Fabrication

Market Area:
 California, Nevada, Arizona

Management:
 Devin Doyle
 Jack Scialabba
devin@responsefiresupply.com
jack@responsefiresupply.com

RJB Wholesale, Inc.

12418 NE 124th Street
 Kirkland, Washington 98034
 Tel: 206.707.3385

Safe Fleet Industrial

1302 W Beardsley Ave.
 Elkhart, Indiana 46514
 Tel: 574-295-8330

Solberg/Perimeter Solutions

1520 Brookfield Ave
Green Bay, Wisconsin 54313-8808
Email:
david.pelton@perimeter-solutions.com
Tel: 920.593.9445

Website:
www.solbergfoam.com

Founded:
1967

Primary Products/Services:
Foam Concentrates, Foam Systems Hardware

Market Area:
Global

Hours of Operation:
M-F 7:30 a.m. - 4:30 p.m. CST

Management:
Edward Goldberg – *CEO*
Seth Barker – *Commercial Director, Suppressants*
Craig McDonnell – *Business Manager, Class B Foam*
Mitch Hubert – *Sr. Fellow R&D*
Bill Smith – *Sr. Director Global Sales*
David Pelton – *Sr. Director, Marketing*
Jim Schwander – *Eastern Region Sales Manager*
Jim Scott – *Midwest Region Sales Manager*
Manny Tavares – *North Central Region Sales Manager*
Joe Stonecypher – *Southern Region Sales Manager*
Todd Wayshville – *Western Region Sales Manager*
Sales Contact:
Todd Wayshville – *Sales Manager*
Email: todd.wayshville@solbergfoam.com

Company Profile:

A Division of Perimeter Solutions LP, SOLBERG has the expertise, capabilities and resources to serve the fire protection and firefighting industry. The company is a global resource for firefighting foam concentrates and foam systems hardware. SOLBERG offers a line of environmentally sustainable fluorosurfactant and fluoropolymer-free foam concentrate products, an innovation in Class B firefighting foam, and traditional Class B, C6 based PFOS-free, AFFF and AR-AFFF foam concentrates including a Class A foam. SOLBERG Foam Systems Hardware is engineered by a team with over 225 years of combined in-the-field fire protection experience for high-hazard, high-risk environments. At SOLBERG, we continually pioneer firefighting foam technologies to meet the latest demands

in the Aerospace, Aviation, Chemical, Defense, Energy, Fire Service, Marine, Mining, Oil & Gas, Petrochemical, Pharmaceutical, Pipeline, Solvents & Coatings and Utilities industries.

South-Tek Systems, LLC

3700 U.S. Highway 421 North
Wilmington, N.C. 28401
Phone: 888.526.6284

Founded:
1997

Primary Products/Services:
Nitrogen Generators / Corrosion Inhibiting Solutions

Market Area:
Worldwide
Management:

Sales Contact:
Jake Lehmann – *Product Manager / Fire Protection Team Lead*

Company Profile:

South-Tek Systems is the leading manufacturer of corrosion inhibiting solutions for dry, pre-action, and wet fire sprinkler systems, including N2Blast® and DeOx™ Technology.

Spears Manufacturing Company

15853 Olden Street
Sylmar, California 91392
Tel: 818.364.1611

Website:
www.spearsmfg.com

SPP Pumps

2905 Pacific Dr.
Norcross, Georgia 30071
Tel: 770.409.3280
Fax: 770.409.3290

Email:
sales@sppumps.com

Founded:
1875

Primary Products/Services:
fire pumps and fire pump systems

Market Area:
Global

Hours of Operation:
8:00 a.m.-5:00 p.m. M-F EST

Management:

John Kahren, President
Jimmy Hunt, Director of Sales, Fire Division
Veronica Bryant, Marketing Services

Sales Contact:

Jimmy Hunt
Tel: 770.409.3280 ext. 2204
email: james_hunt@sppumps.com

Company Profile:

SPP Pumps has been working with consultants, contractors, installers and end-users for more than a century to achieve the most cost effective fire system pumping solutions. Since SPP Fire was formed in 1875, it has built a reputation for quality and value that has made it unquestionably the leading supplier of Approved Fire Protection Pumping Packages throughout the world. SPP Pumps has six facilities worldwide that offer the same attention to quality and value that has made SPP Pumps a market leader for over 100 years.

System Sensor

2101 Braden Ct
Harleysville, Pennsylvania 19438-2867
Tel: 610.222.8081

Website:
www.systemsensor.com

Founded:
1984

Primary Products/Services:
Fire Sprinkler System Monitoring Products, Fire Detection and A/V Notification Devices

Market Area:
Worldwide

Hours of Operation:
7:30 a.m. - 5:00 p.m. CST Mon.-Fri.

Management:
Dino Koutrouki – *President, Honeywell Fire, Globally*
Dave Pakech – *VP of Fire Sales*
Chuck Kitts – *Director of Fire Sprinkler Sales*
Samir Jain – *Director of Marketing*
Dennis Sekermestrovich – *Western Regional Manager*
Mark Schneider – *Eastern Regional Manager*

Sales Contact:
Chuck Kitts – *Director of Fire Sprinkler Sales*

Company Profile:

System Sensor is a global manufacturer of sprinkler monitoring products, including water flow detectors, supervisory switches, pressure switches, deluge releasing panel, alarm bells and explosion-proof products. With sales, service and manufacturing facilities extending

throughout the Americas, Europe and Asia, System Sensor promises to continue developing advanced ideas that deliver advanced solutions. Our high production standards and constant communication with our customers gives you a quality product with the information and support you need to install and maintain our products. Because we place a premium on research and development, System Sensor sprinkler monitoring products are quick and easy to install and maintain.



Talco Industries

6040 NE 117th Ave.
Portland, Oregon 97220-1012
Tel: 503.668.1231
Fax: 503.688.1234

Website:
www.talcofire.com

Email:
ks@talcofire.com

Founded:
1981

Primary Products/Services:
Residential and commercial packaged fire pump systems

Market Area:
U.S. & Canada

Hours of Operations:
M-F 8:00 a.m.-5:00 p.m. PST

Sales Contact:
Kim Strobeck, Sales Manager
Email: ks@talcofire.com

Company Profile:

Talco Fire Systems has been building premium quality fire pump systems for over 30 years. Specializing in both residential and commercial packaged fire pump systems, we design & custom build packaged units to fit any application. Our packaged systems will save you time, money, and headaches. We pull it all together, you drop it in place. Whether you need our Home Hydrant® Residential Fire Pump and Tank for your home or ADU, or a 5000 GPM diesel driven fire system for a multi-warehouse complex – Talco has you covered.

Tank Connection

3609 North 16th Street
Parsons, Kansas 67357
Tel: 620.423.3010
Fax: 620.423.3999

Website:
www.tankconnection.com

Founded:
2003

Primary Products/Services:
Bolted RTP (Rolled, Tapered Panel) tanks, Aluminum Domes

Market Area:
Worldwide

Management:
Kenton Jarman VP Marketing

Sales Contact:
Jeremy Burke, Liquid Market Manager
Email: sales@tankconnection.com

Company Profile:

Tank Connection designs, manufactures and installs the to- rated bolted tank design available for fire protection applications worldwide. Designed to meet Factory Mutual and NFPA 22 requirements, the Tank Connection performance package remains unmatched in the industry. Tank Connection's proprietary LIQ Fusion 8000 FBE™ coating system and application technology out-performs all other coatings in water storage applications and is offered exclusively by Tank Connection. Tank Connection facilities are ISO 9001 Certified QMS. Tank Connection field construction processes are superior in quality and field safety.

Contact Tank Connection today and allow us to exceed your expectations.

Titus Industrial

14580 Midway Road
Dallas, Texas 75244
Tel: 469.289.1773

Website:
www.titusindustrial.com

Email:
PVF@titusindustrial.com

Founded:
2016



TLX Technologies

N27 W23727 Paul Rd #200
Pewaukee, Wisconsin 53072
Tel: 262.970.8660

Website:
www.tlxtech.com

Founded:
1996

Primary Products/Services:
solenoids, actuators and valves

Market Area:
Fire Suppression

Sales Contact:
Jason Busalacchi

Company Profile:

TLX Technologies engineers and manufactures custom electromagnetic release actuators and solenoids for the fire suppression industry. Our new supervised pilot-operated solenoid valve, engineered with an integrated supervision function, is designed to meet the requirements of the NFPA 13: Sec. 8.3.1.2.1 standard which went into effect January 1, 2021.

Eaton's TOLCO™ & B-Line Series Products

509 West Monroe
Highland, Illinois 62249
Tel: 800.851.7415
FAX: 800.356.1438

Website:
www.Eaton.com/TOLCO

Email:
SeismicQuotes@Eaton.com

Founded:
1967

Primary Products/Services:
Seismic bracing, pipe hangers, strut systems, cable ladder/tray for MEP and Fire Protection, Engineering services and resources, and TOLBrace™ Software

Market Area:
Worldwide

Company Profile:

Eaton's TOLCO time-saving seismic bracing products and engineering solutions, along with B-Line series support systems, provide the fire protection market with a one-stop, reliable solution from pre-bid to final inspection.

To learn more, visit Eaton.com/Tolco.

United Brass Works, Inc.

714 South Main Street
Randleman, North Carolina 27317
Tel: 800.334.3035
Fax: 800.498.4696

Website:

www.ubw.com

Email:

jim.sattler@ubw.com

Founded:

1910

Primary Products/Services:

bronze valves / custom cast and machined products

Market Area:

Worldwide

Hours of Operation:

8:00 a.m. - 5:00 p.m. Mon.-Fri.

Management:

Mike Berkelhammer, President

Sales Contact:

Jim Sattler, Sales Manager
Email: sales @ubw.com

Company Profile:

United Brass Works, Inc manufactures a wide range of bronze and ductile iron valves for fire sprinkler applications.

services with NICET IV certified drawings as well as training for installers and education for AHJs to get your projects completed efficiently and effectively.

Victaulic Company

4901 Kesslersville Road
Easton, Pennsylvania 18040
Toll-Free: 800.PICK.VIC

Website:

www.victaulic.com

Founded:

1925

Market Area:

Global

Management:

Scott Howser, V.P., Market Dev.

Company Profile:

As the world's leading producer of grooved mechanical pipe-joining systems, Victaulic works collaboratively with its customers and affiliates worldwide to deliver innovative solutions across our core business areas. Our products and services put people to work faster while increasing safety, ensuring reliability and maximizing efficiency and sustainability. Visit www.victaulic.com and follow us on LinkedIn, Facebook, Twitter, and YouTube.

- Backflow Prevention
- Tools & Accessories

Market Area:

Worldwide

Hours of Operation:

24/7/365

Management:

James Golinveaux – *President and CEO, Viking Group, Inc.*

Jeremy Morton – *Senior Vice President, Sales & Marketing, Viking Group, Inc.*

Joe Bardowski – *Vice President Operations, Viking SupplyNet*

Tom O'Connor – *Senior Vice President Manufacturing Operations*

Mike Bosma – *Executive Vice President Sales International, Viking SupplyNet*

Chris Sharp – *Vice President, Strategic Partnerships, Viking Group, Inc.*

James Lake – *Vice President, Training & Technical Services*

Martin Workman – *Vice President Product Management*

Jeff Norton, *Vice President – Marketing, Viking Group, Inc.*

Sales Contact:

Adam Owens, *Director – U.S. Sales & Customer Service*

Company Profile:

Together, the companies of The Viking Group (Viking Corporation, Viking SupplyNet, Viking Fabrication Services, and Viking Plastics) provide integrated solutions for any fire protection challenge. With a comprehensive range of products and services, Viking provides much more than fire protection hardware. We help streamline the work of our customers. We help improve their quality of service. We help them grow their business.

The experience of our employees, our commitment to advancing fire protection technology, and our high-quality, worry-free products and services all make Viking the single-source supplier for thousands of customers worldwide.

BRANCH OFFICES UNITED STATES OF AMERICA

The Viking Corporation

210 N. Industrial Park Drive
Hastings Michigan 49058
TeleTel: 800-968-9501
Fax: 269-945-9599 (general inquiries)
Customer Service Fax: (269) 945-5090
info@vikingcorp.com
techsvcs@vikingcorp.com

Uponor Inc.

5925 148th Street West
Apple Valley, Minnesota 55124-8197
Tel: 800.321.4739

Website:

www.uponor-usa.com

Email:

kate.olinger@uponor.com

Founded:

1620

Primary Products/Services:

Residential Fire Sprinkler Systems

Market Area:

North America

Management:

Kate Olinger, Sr. Manager, Residential Segment

Company Profile:

Uponor AquaSAFE™ fire sprinkler systems are PEX-based solutions listed to UL 1821 that provide flexible options for NFPA 13D applications, including multipurpose, stand-alone and exposed applications. Uponor provides exceptional support, including design

Viking Group, Inc.

5150 Beltway Dr. SE
Caledonia, MI 49316
Tel: 269.945.9501
Toll Free: 800.968.9501

Website:

www.vikinggroupinc.com

Founded:

1897

Primary Products/Services:

- Fire Sprinklers and Systems
- Fire Protection Valves
- CPVC Pipe and Fittings
- Fabrication Services
- Grooved Piping System
- Steel Pipe
- Threaded Fittings
- Hangers & Fasteners
- Electrical Products
- Foam Systems
- FDC Equipment



Viking Group, Inc.
 5150 Beltway SE
 Caledonia, Michigan 49316

VIKING SUPPLYNET - WEST REGION

Viking SupplyNet (Los Angeles)
 Regional Headquarters
 9101 Sorensen Ave.
 Santa Fe Springs, CA 90670
 TeleTel: 562-903-7274
 Fax: 562-944-1058
 santafesprings@supplynet.com
 Sales Contact: Dave Swanson, Jim Gudger, Jeff Hill

Viking SupplyNet (Phoenix)
 625 E. Watkins Street
 Phoenix, AZ 85004
 TeleTel: 602-252-0400
 Fax: 602-252-2028
 phoenix@supplynet.com
 Sales Contact: Kevin Kane, Jeff Hill

Viking SupplyNet (Bay Area)
 1164 San Luis Obispo
 Hayward, CA 94544
 TeleTel: 510-429-7295
 Fax: 510-429-7297
 hayward@supplynet.com
 Sales Contact: Augustine Raya, Jeff Hill

Viking SupplyNet (Las Vegas)
 Cameron Business Center #1,
 4701 Cameron Street, Suite D
 Las Vegas, Nevada 89103
 TeleTel: 702-795-8002
 Fax: 702-795-0105
 lasvegas@supplynet.com
 Sales Contact: Jim Gudger, Jeff Hill

Viking SupplyNet (Seattle)
 8001 S. 224th Street
 Kent, WA 98032
 TeleTel: 253-872-8444
 Fax: 253-872-8455
 kent@supplynet.com
 Sales Contact: Dave Luckenbach, Jeff Hill

Viking SupplyNet (Denver)
 12360 E. 46th Avenue #400
 Denver, CO 80239
 TeleTel: 303-576-0665
 Fax: 303-576-0611
 denver@supplynet.com
 Sales Contact: Scott Franklin, Jeff Hill

Viking SupplyNet (Riverside)
 6480 Box Springs Blvd.
 Riverside, California 92507
 TeleTel: 951-656-3111
 Fax: 951-656-2606
 west@supplynet.com
 Sales Contact: Dave Swanson, Jim Gudger, Jeff Hill

VIKING SUPPLYNET - CENTRAL REGION

Viking SupplyNet (Columbus)
 Regional Headquarters
 2353 International Street
 Columbus, OH 43228
 TeleTel: 614-527-5800
 Fax: 614-527-5818
 midwest@supplynet.com
 Sales Contact: Bob Fischer, Jason Wardour

Viking SupplyNet (Detroit)
 26020 Mound Road
 Warren, MI 48091
 TeleTel: 586-754-0004
 Fax: 586-754-8020
 detroit@supplynet.com
 Sales Contact: Sandy Richter, Jason Wardour

Viking SupplyNet (Chicago)
 640 Center Avenue
 Carol Stream, IL 60188
 TeleTel: 630-462-5860
 Fax: 630-871-1898
 chicagocsr@supplynet.com
 Sales Contact: Ron Bergquist, Jason Wardour

Viking SupplyNet (Kansas City)
 1930 Warren Street
 North Kansas City, MO 64116
 TeleTel: 816-474-1190
 Fax: 816-474-8991
 kansascity@supplynet.com
 Sales Contact: Chris Muschany, Tom Bowers

Viking SupplyNet (Twin Cities)
 305 Bridgepoint Drive, Suite 200
 South St. Paul, MN 55075
 TeleTel: 651-455-0325
 Fax: 269-818-1614
 stpaul@supplynet.com
 Sales Contact: Pat Machart, Jason Wardour

Viking SupplyNet (Houston)
 6911 Fairbanks North Houston Road, Suite 100
 Houston, TX 77040
 Tel: 713-896-8464
 Fax: 713-896-8429
 houstonVSN@vikingcorp.com
 Sales Contact: Mike Repking, Tom Bowers

Viking SupplyNet (Dallas)
 1011 N. 28th Avenue, Suite 200
 Irving, TX 75261
 TeleTel: 972-466-0933
 Fax: 972-466-0853
 dallas@supplynet.com
 Sales Contact:
 Perry Adams, Todd Griffith, Tom Bowers

Viking SupplyNet (San Antonio)
 1050 Arion Parkway, Suite 110
 San Antonio, TX 78216
 TeleTel: 210-491-2023
 Fax: 269-818-1607
 sanantonio@supplynet.com
 Sales Contact: Adam Nunnelly, Tom Bowers

VIKING SUPPLYNET - EAST REGION

Viking SupplyNet (New Jersey)
 Regional Headquarters
 4B Cranberry Road
 Parsippany, NJ 07054
 TeleTel: 973-541-2580
 Fax: 269-818-1639
 newyorkmetro@supplynet.com
 Sales Contact: Terry Laffey, Ben Johnson

Viking SupplyNet (Atlanta)
 Regional Headquarters
 100 Piedmont Court, Suite A
 Doraville, GA 30340
 TeleTel: 770-446-3068
 Fax: 770-446-3713
 atlanta@supplynet.com
 Sales Contact: Geoff Meyer, Ben Johnson

Viking SupplyNet (New York City)
 56-75 49th Street, Suite B
 Maspeth, NY 11378
 TeleTel: 973-541-2320
 Fax: 269-818-1639
 newyorkmetro@supplynet.com
 Sales Contact: Terry Laffey, Ben Johnson

Viking SupplyNet (Philadelphia)
 201 King Manor Drive
 King of Prussia, PA 19406
 TeleTel: 610-279-3762
 Fax: 610-277-3658
 philadelphia@supplynet.com
 Sales Contact: Jamey Wright, Ben Johnson

Viking SupplyNet (Boston)
 60 Maple Street
 Mansfield, MA 02048
 TeleTel: 508-594-1800
 Fax: 269-818-1639
 boston@supplynet.com
 Sales Contact: Bill Wian, Ben Johnson

Viking SupplyNet (Baltimore / Washington)
 8310 Sherwick Court
 Jessup, Maryland 20794
 TeleTel: 301-490-5514
 Fax: 269-818-1639
 baltimore@supplynet.com
 Sales Contact: Jamey Wright, Rob Sell, Ben Johnson

Viking SupplyNet (Richmond)

4593 Carolina Avenue
Richmond, Virginia 23222
TeleTel: 804-228-1107
Fax: 804-228-1556
east@supplynet.com
Sales Contact: Ben Johnson

Viking SupplyNet (Memphis)

Airport Distribution Center #8
4299 Air Trans Road
Memphis, TN 38118
TeleTel: 901-360-9401
Fax: 901-360-9428
memphis@supplynet.com
Sales Contact: Danna Wells, Ben Johnson

Viking SupplyNet (Nashville)

555 Brick Church Park Drive
Nashville, TN 37207
TeleTel: 615-255-8393
Fax: 612-256-0062
nashville@supplynet.com
Sales Contact: Jerry Sisson, Ben Johnson

Viking SupplyNet (Charlotte)

11517 Cordage Street, Suite P
Charlotte, NC 28273
Tel: 704-588-8880
Fax: 704-588-8650
charlotte@supplynet.com
Sales Contact: Seth Pendleton, Ben Johnson

Viking SupplyNet (Orlando)

503 Ocoee Business Parkway
Ocoee, FL 34761
TeleTel: 407-656-7600
Fax: 407-656-7675
orlando@supplynet.com
Sales Contact: Ted Collazo, Mike Atkins,
Ben Johnson

Viking SupplyNet (Ft. Lauderdale)

2678 SW 36th Street
Fort Lauderdale, FL 33312
TeleTel: 954-791-1756
Fax: 954-791-1614
southfl@supplynet.com
Sales Contact: Alejandro Garcia, Mike Atkins,
Ben Johnson

**VIKING FABRICATION SERVICES –
U.S. LOCATIONS**

**Viking Fabrication Services (Southern
California)**

6480 Box Springs Blvd.
Riverside, California 92507
TeleTel: 951-656-3111
Fax: 951-656-2606
vfsriverside@supplynet.com
Sales Contact: Dave Swanson, Jim Gudger, Jeff Hill

Viking Fabrication Services (Phoenix)

2626 S. 7th Street
Suite B
Phoenix, Arizona 85034
TeleTel: 602-252-0400
Fax: 602-252-2028
vfsphoenix@supplynet.com
Sales Contact: Kevin Kane, Jeff Hill

Viking Fabrication Services (Denver)

12360 E. 46th Avenue #400
Denver, Colorado 80239
TeleTel: 303-576-0665
Fax: 303-576-0611
vfsdenver@supplynet.com
Sales Contact: Scott Franklin, Jeff Hill

Viking Fabrication Services (Bay Area)

1164 San Luis Obispo Street
Hayward, CA 94544
TeleTel: 510-429-7295
Fax: 510-429-7297
vfsbayward@supplynet.com
west@supplynet.com
Sales Contact: Augustine Raya, Jeff Hill

Viking Fabrication Services (Chicago)
640 Center Avenue
Carol Stream, IL 60188
TeleTel: 630-462-5860
Fax: 630-871-1898
chicago@vikingfabrication.com
Sales Contact: Ron Bergquist, Jason Wardour

Viking Fabrication Services (Columbus)

2353 International Street
Columbus, Ohio 43228
TeleTel: 614-527-5800
Fax: 614-527-5818
vpscolumbus@supplynet.com
Sales Contact: Bob Fischer, Jeff Brown, Jason
Wardour

Viking Fabrication Services (Kansas City)

1930 Warren Street
North Kansas City, MO 64116
TeleTel: 816-474-1190
Fax: 816-474-8991
vfskansascity@supplynet.com
Sales Contact: Chris Muschany, Tom Bowers

**Viking Fabrication Services (New York Metro
/ New Jersey)**

4B Cranberry Road
Parsippany, NJ 07054
Tel: (973) 541-2580
Fax: (269) 818-1639
vfsnewyorkmetro@supplynet.com
Sales Contact: Terry Laffey, Ben Johnson

Viking Fabrication Services (Richmond)

4593 Carolina Avenue
Richmond, Virginia 23222
TeleTel: 804-228-1107
Fax: 269-818-1639
vfsrichmond@supplynet.com
Sales Contact: Rob Sell, Ben Johnson

Viking Fabrication Services (Atlanta)

100 Piedmont Court, Suite A
Doraville, GA 30340
TeleTel: 770-446-3068
Fax: 770-446-3713
vfsatlanta@supplynet.com
Sales Contact: Geoff Meyer, Ben Johnson

Viking Fabrication Services (Houston)

6911 Fairbanks North Houston Rd., Suite 100
Houston, TX 77040
Tel: (713) 896-8464
Fax: (713) 896-8429
vfs-houston@supplynet.com
Sales Contact: Mike Repking, Tom Bowers

Viking Fabrication Services (Dallas)

1011 N. 28th Avenue, Suite 200
Irving, TX 75261
TeleTel: 972-466-0933
Fax: 972-466-0853
vfsdallas@supplynet.com
Sales Contact: Perry Adams, Todd Griffith, Tom
Bowers

CANADA

Viking SupplyNet (Toronto)

325 Vaughan Valley Blvd.
Woodbridge, Ontario L4H 3B5
Tel: (905) 856-3557
Fax: (905) 856-3558
toronto@supplynet.com
Sales Contact: Wayne Brown, Scott Tanner

Viking SupplyNet (Vancouver)

19650 Telegraph Trail Bldg B Unit 1
Langley, British Columbia V1M3E5
Tel: (604) 882-2766
Fax: (604) 882-2762
vancouver@supplynet.com
Sales Contact: Nicole Andreassen, Scott Tanner

Viking SupplyNet (Calgary)

#42 4216 54th Avenue SE
Calgary, Alberta T2C 2E3
Tel: 403-203-5681
Fax: 403-203-5682
calgary@supplynet.com
Sales Contact: Scott Tanner

SCS Canada (Quebec) – Independent

Distribution Partner
 1935 Lionel Bertrand Blvd.
 Boisbriand, Quebec J7H 1N8
 TeleTel: 450-430-7031
 Fax: 450-430-9170
 scs@polygon.ca

MEXICO

Viking SupplyNet
 1011 N. 28th Avenue, Suite 200
 Irving, TX 75261
 TeleTel: 972-466-0933
 Fax: 972-466-0853
 latinamerica@supplynet.com
 Sales Contact: Pedro Valdez

LATIN AMERICA AND THE CARIBBEAN

Viking SupplyNet
 2678 SW 36th Street
 Fort Lauderdale, FL 33312
 TeleTel: 954-791-2901
 Fax: 954-791-1181
 latinamerica@supplynet.com
 Sales Contact: Alejandro Garcia

**ADDITIONAL LOCATIONS – EUROPE AND
 MIDDLE EAST
 EUROPE - HEADQUARTERS**

Viking EMEA
 Zone Industrielle Haneboesch
 L-4562 Differdange/Niedercorn, Luxembourg
 TeleTel: +352-58-37-37-1
 Fax: +352-58-37-36
 vikinglux@vikingcorp.com
 Additional Locations - Europe

- France
- The Netherlands
- Luxembourg
- Germany
- Romania
- Poland
- Sweden (Stockholm)
- Sweden (Knivsta- fabrication)
- Italy
- Spain
- United Kingdom (Epworth)
- United Kingdom (West Midlands)
- United Arab Emirates
- Turkey
- Israel

Asia - Headquarters

The Viking Corporation (Far East) Pte. Ltd.
 69 Tuas View Square
 Westlink Techpark
 Singapore 637621
 Tel: (+65) 6 278 4061
 Fax: (+65) 6 278 4609
 vikingsingapore@vikingcorp.com

ADDITIONAL LOCATIONS - ASIA

- Japan
- Hong Kong
- South Korea
- China (Shanghai)
- India

SOUTHERN HEMISPHERE LOCATIONS

Australia (Independent Distribution Partner)

Viking Fire Protection Supplies Pty. Limited
 95 - 99 Hardys Road
 Underdale SA 5032, Australia
 TeleTel: +61-8-8352-2888
 Fax: +61-8-8352-2755
 rick@vikingfire.com.au
 Sales Contact: Rick Tanner, Patrick Conway

**SOUTH AFRICA (INDEPENDENT
 DISTRIBUTION PARTNER)**

Firequip CC
 P.O. Box 14579, Bredell 1623, South Africa
 TeleTel: +27-11-396-1800
 Fax: +27-11-396-1810
 dave@firequip.co.za
 Sales Contact: Dave Martin

**NEW ZEALAND (INDEPENDENT
 DISTRIBUTION PARTNER)**

Viking Sales & Services Limited
 12 Cornish St, Korokoro 5012 5040,
 New Zealand
 TeleTel: +64-4-589-0856
 Fax: +64-4-589-0413
 vikingnewzealand@vikingcorp.com
 Sales Contact: Peter Clark, Patrick Conway

Viking Sales & Services - Auckland

105 Hugo Johnston Drive
 Penrose, Auckland 1061
 New Zealand
 Tel: (+64) 9 969 9009
 Fax: (+64) 9 969 9007
 vikingnewzealand@vikingcorp.com

Watts

815 Chestnut Street
 North Andover, Massachusetts 01845
 Tel: 978.688.1811
 Fax: 978.794.1848

Website:
 www.watts.com

Management:
 Ken Nolan, National Product Manager

Company Profile:
 Founded in 1874, Watts, part of the Watts Water Technologies family, is one of the world's

largest independent valve companies with 10 factories in the United States and Canada. Watts Regulator designs, manufactures, and sells an extensive line of flow control products for the water quality, residential plumbing and heating, commercial and OEM markets.



Wheatland Tube Company

700 S. Dock Street
 Sharon, Pennsylvania 16146-1836
 Toll Free: 800.257.8182

Website:
 www.wheatland.com

Email:
 scott.dimnick@wheatland.com

Founded:
 1877

Primary Products/Services:
 Tubular steel products, electrical conduit, steel sprinkler pipe, fence framework, standard pipe

Market Area:
 Nationwide

Hours of Operation:
 7:00 a.m.-5:00 p.m./7 days

Management:
 Barry M. Zekelman, Exec. Chair & CEO
 Kevin Kelly, Pres, Wheatland Tube, Pipe Division
 Bob Bussiére, Technical Consultant

Sales Contact:
 Scott Dimmick, Southeast Regional Manager
 Email: scott.dimnick@wheatland.com

Company Profile:
 Wheatland Tube manufactures the industry's most complete line of steel sprinkler pipe. Our coating options set the standard for resistance to exterior corrosion and heat. With a complete line of fire sprinkler pipe, we guarantee our steel pipe is compatible with any fire protection system that only uses steel pipe. The Wheatland Advantage is dedicated to providing our customers with an unparalleled product, our fire sprinkler pipe is:

- 100% Steel
- Made in USA
- Hot-dipped galvanized to prevent dross and ensure a smooth ID finish
- Exclusively double-sealed and packaged for shipping

Wilkins, a Zurn Company

1747 Commerce Way
Paso Robles, California 93446
Tel: 805.238.7100
Fax: 805.238.5766

Website:

www.zurn.com

Founded:

1906

Primary Products/Services:

Valves for Fire Suppression Systems

Market Area:

Worldwide

Hours of Operation:

6:30 a.m. - 5:00 p.m. PST Mon..Fri.

Management:

Chris Connors, General Manager
Rick Fields, Vice President, Sales & Marketing
Mike Mallas, Sales Manager Fire Protection
Rachael Wiley.Steffen, Director of Brand Marketing

Sales Contact:

Paul Wait, National Sales Manager
Tel: 805.226.6296
FAX: 805.238.5766

Company Profile:

Wilkins, a Zurn Company,
Offers a complete line of American made factory set, easy field adjustable, and master zone control valves. Available in 1½" – 6" sizes, in angle and inline pattern and threaded, flanged, and grooved connections.

WinSupply, Inc.

3110 Kettering Blvd.
Dayton, OH 45439
Tel: 937.294.5331
Toll Free: 800.677.4380

Website:

https://www.winsupplyinc.com/

Sales Contact:

Bob Lopuzzo, Sales and Business Development Manager, Fire and Fabrication
Email: rdlopuzzo@windustrial.com

Company Profile:

As part of the national wholesale distribution company WinSupply Inc., local Winsupply fire fabrication and supply companies specialize in wholesale distribution of fire sprinkler industry products. From facilities throughout the country, the Winsupply family of fire companies provide fire sprinkler contractors with customized fire sprinkler system fabrication and a wide range of the fire sprinkler industry's most recognized and relied upon brands. With a sharp focus on personalized service, the Winsupply family of fire companies have the expertise to be knowledgeable about the products they sell as well as the technical requirements of their customers.

Newburgh Windustrial, Newburgh, NY

845.566.5300

Atlanta Winsupply, Lithonia, GA

770.484.1112

Dayton Windustrial, Dayton, OH

937.461.2603

Rochester Windustrial, Rochester, NY

585.232.6770

Pittsburgh Winsupply, Pittsburgh, PA

412.331.2182

Lehigh Valley Windustrial, Bethlehem, PA

610.866.1751

Capitol Heights Winsupply, Walker Mill, MD
240.619.2472

Newark Windustrial, Newark, NJ

973.589.0479

NYC Winsupply, NYC City, NY

516.280.9384

New Haven Windustrial, New Haven, CT

203.248.0400

Northern Windustrial, Newington, CT

860.953.9321

West Coast Winsupply, Tampa, FL

813.247.7202

Littlerock Winwater, Littlerock, AR

501.455.5315

Albuquerque Windustrial, Albuquerque, NM

505.821.2400

Winsupply of Denver, Denver, CO

720.459.8776

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NFSA's Top Tech Competition— The “Superbowl” for Sprinkler Layout Technicians

by Roland A. Asp, CET

It is that time again! This is the year that NFSA is holding its Top Tech Competition. The 2021 competition will take place during the NFSA's Annual Seminar and North American Fire Sprinkler Expo® which is scheduled for October 5-7, 2021 at The Cosmopolitan in Las Vegas.

The Top Tech Competition is a fun but challenging contest that pits the top sprinkler layout technicians against each other in a game show-type tournament with the purpose of finding the best fire sprinkler layout technician. If you think you have what it takes to challenge the industry elite – this is the competition for you!



The National Fire Sprinkler Association has been holding the Top Tech Competition every two years at its Annual Seminar and North American Fire Sprinkler Expo® since 2007, making this year's competition the eighth time we will be holding this prestigious tournament. Many of the past winners and competitors are today's leaders in the fire sprinkler industry.

This competition was originally conceived to generate excitement and enthusiasm associated with the NFSA Annual Seminar & Exhibition, as well as to encourage participation of technicians at the educational portions of the seminar. This tournament certainly met those goals, and each competition has proven to be an exciting addition to the seminar and this year's competition will continue this proud tradition.

The first four competitions (2007, 2009, 2011 and 2013) were team competitions with the top technicians in the various regions competing against other teams in other regions.



Regardless of the format, the winners (and all the competitors) showed an impressive knowledge of the field and certainly deserve accolades.

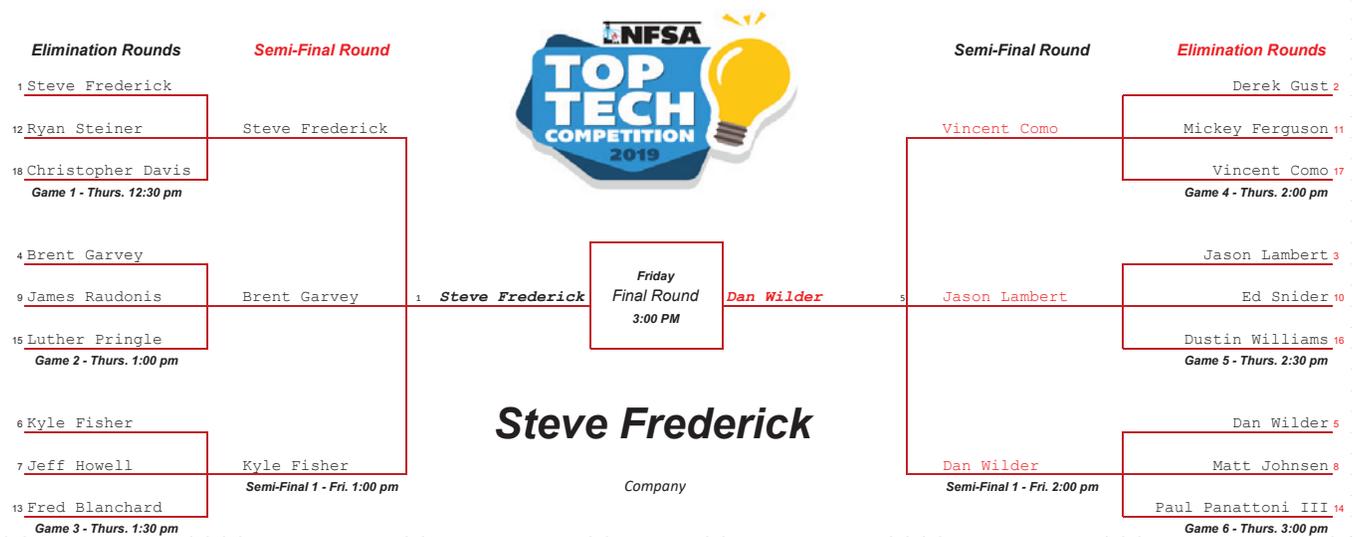
Table of Past Winners

Year	Winner	Runner-up
2007	Rudd Milam – Wiginton Fire Protection Ray Vance – Wayne Automatic Ricardo Vasquez – SimplexGrinnell	Team Northeast
2009	Northeast Team Michael Mackey - SRI Marc Ruggiero - SimplexGrinnell David Smith – Vixen Fire Protection	Team Great Lake
2011	New England Team Isak Klicic Marc Ruggiero – SimplexGrinnell David Smith – Vixen Fire Prot.	Team Western Canada
2013	Great Lakes Team Jeffrey Curlee, F.E. Moran Fire Protection, Matt Johnsen, USA Fire Protection Scott Schiesser, Ryan Fire Protection	Team Northeast
2015	Steve Frederick	Fred Blanchard - BCE Engineers
2017	Chris Crivello – Truvue Inspection Technologies	Richard Dinwiddie – Fire Tech, LLC
2019	Steve Frederick – Rioux Fire Protection	Dan Wilder – Western States



To qualify for this event, the competitors start by taking the preliminary online examination, testing their knowledge of the current edition of NFPA 13, NFPA 13D, NFPA 13R, NFPA 14,

continued on page 56



continued from page 55

NFPA 20 and NFPA 22. This exam consists of both multiple choice and layout questions and certainly requires an in-depth knowledge of these standards. Registration to qualify opened on April 1st, 2021 and successful competitors will continue with the ultimate goal of competing at the Annual Seminar and North American Fire Sprinkler Expo® in Las Vegas.

Once in Vegas, the excitement really starts. The live rounds of the competition will be held on the expo floor with a “Jeopardy” style game show format. These rounds not only challenge the participant’s knowledge but also generate a lot of enthusiasm from coworkers, families, and attendees who gather around the Top Tech stage to cheer on the contestants.

As a layout technician myself, I am truly impressed and humbled with the knowledge and skill shown by all the competitors. The Top Tech Competition can be described as the “Superbowl” for sprinkler layout technicians, and it is not only a fun event, it also highlights the skills of the layout technician.

As in past years, I expect this competition to be a highlight of our time in Vegas and is an event that competitors and the audience alike will be talking about for years to come.

Do you think you have what it takes to be crowned the best Fire Sprinkler Layout Technician in the land? Then come compete in the National Fire Sprinkler Association’s Top Tech Competition against the industry elite!

Visit <https://nfsa.org/toptech/> for more information about this competition.

See you in Vegas! •

Information on the 2019 Top Tech Completion can be found In the July/ August 2020 edition of the National Fire Sprinkler Magazine, 2019 TOP TECH Competition Review

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Mutiny on the Bounty

by John Sylvester

This is a story about some history that I was able to witness because of my connection through the fire sprinkler industry.

During the 1960s, I was the construction superintendent, design manager, and special hazards sales estimator and designer working for the Viking Automatic Sprinkler Co. in the southern California area. One of our sales estimators was John Cronquist. He had been with the company for about 30 years prior to my joining the company. We developed a strong friendship over the years.

One day he came into my office and said, "Johnny, Mr. Mayer of MGM called me stating he had some remodel work that needed done." Since I was scheduling the construction crews, he said I should take the call. I could see what needed to be done and schedule the work.

I made an appointment, then drove out to Burbank, California. When I got to the studio I parked outside the main gate. Waiting for me was a gentleman in a golf cart. We started though the studio lot passing several sound stages. My impression of a sound stage was a wooden pole building, about 60 feet wide and about 100 to 200 feet long with a Quonset type wooden roof. After we passed several stages, we stopped at one. He rolled out the sliding door and flipped on the lights, he then said, "This is it." My comment was, "What is it?" He said, "This is the deck of the Bounty." I said, "Do you mean from the movie Mutiny on the Bounty, where Marlin Brando was the crazy captain?" He said, "What you are seeing is the deck mounted on a metal support which could be manipulated to tip the deck up and down and side to side to simulate a rolling sea." The far wall was draped with a large canvas painting with the sky, sun, clouds, and water. The canvas was back lit, which allowed the light to change from day to night or sunny to stormy.

I asked what needed to be done. He said they also had a mockup of the interior of the captain's cabin which they were able to remove out the front door. They needed the sound stage for other movies, but the set was in the way. They wanted to remove the set and store it outside on the back lot to save it for future pirate movies. I came from the eastern part of the country, where snow, and rain were commonplace. He said Southern California was originally a desert and arid, the perfect place to store anything outside without much deterioration from weather. They wanted to remove the sidewall to be able to remove the set then replace the wall. My work was to



remove a sprinkler riser, then replace it after the set was removed.

We then got into the golf cart to show me where the set was to be stored. He said in addition to the set they had a real three-masted schooner which sailed the coast and docked in different ports to advertise the movie and it also was used for long shots at sea. The ship was used for several Pirates of the Caribbean movies, with Johnny Depp as the captain.

A golf cart with two trailers attached passed us, each trailer was mounted with bench seats. I asked what they were needed for and was told that since the studio was idle on the weekends, they conducted free tours of the studio as part of the advertising budget.

We drove through an old street on a western movie set. I learned that it was the set where High Noon starring Gary Cooper was filmed. Further along was a façade of an old courthouse, which was the courthouse from To Kill a Mockingbird. We then passed through a desert with large rocks made of foam, the Western set. The only ride was a replica of an old convertible car with four seats, behind the car was a canvas painting of scenery on two scrolls which moved when the car started, it bounced rattled and shook back and forth giving the riders a feeling of driving along an old dirt road. We finished our work and when I got home, we scheduled a tour of the studio for the family. I believe what we witnessed was the beginning of what has become the theme parks we now know.

Now comes the sad part of the story. I went back to everyday work and never gave much thought about the studio until 2008, when Hurricane Sandy was predicted to hit the East Coast. After the storm hit, the media reported about the devastation. Just a small story was reported about a sailing ship that sank at sea. The pirate ship was docked in port when the warning was reported. The Captain had a choice to make; he decided to take the ship out to sea because fighting the storm at sea would be better than watching the ship smashed to pieces in port. Sadly, the storm was too strong, the ship sank and the entire crew was rescued. •



Multi-Family Fire Sprinkler Requirement in Wisconsin

by Marty King, NFSA Wisconsin State Coordinator

You may have read about the recent change in the enforcement of the multi-family fire sprinkler requirement in the State of Wisconsin. This change back to the model code requirements has been a constant battle in the state between those that look to protect property and save lives and those that look at the monetary bottom line. So how did we get to this on again off again enforcement? We will look into the history of codes within Wisconsin and the events of the past four years that had affected change.

Wisconsin Code Development

Wisconsin is steeped in history with code development. It started in 1907, when the state fire marshal's office was created and issued annual fire reports from 1907-1916. These fire reports contained the statutory authority and requirements relating to fire hazard abatement and the prevention of fire. The reports contained many articles, posters and fliers concerning specific fire problem areas that had occurred during the year as well as the annual fire statistics that were reported from fire departments throughout the state. In 1918, they transferred all fire prevention activities to the Industrial Commission. The Industrial Commission issued its first fire prevention code with an effective date of February 10, 1918. The orders were based on the practice and experience of the State Fire Marshal Department, which formerly carried on this work.

The first published Wisconsin Building Code dates to October 15, 1914, which was the minimum standard for new and existing buildings. This also allowed municipalities to enact and enforce stricter standards. This concept of home developed codes continued until adoption of the International Building Code (IBC), 2000 edition effective July 1, 2002. This code did not separate multi-family structures and allowed municipalities to enforce existing fire sprinkler requirements. Minimum standards were kept until the adoption of the 2006 Edition in March 2008, when the State adopted a Min/Max rule for construction. Municipalities were able to petition to keep existing fire protection code requirements. The State determined whether those municipal codes met the requirements for exemption and published the more stringent requirements online. The State of Wisconsin subsequently adopted the 2009 edition in August 2011 and the 2015 edition in April 2018.

Prior to the adoption of the 2008 edition of the IBC, the State of Wisconsin had a separate multi-family code section dealing

with structures with three or more residential units. Part of that code was a reference to a State statute that required fire sprinkler protection in all residential structures containing 20 or more units. This statute would be the issue questioned in court and by the Attorney General.

Code Conflict

Wisconsin was one of the last states to adopt a model code for construction, even though the fire code had moved to a model code over a decade before. The move to the adoption of a national model code was at the request of the construction industry (architects, builders, contractors) to standardize codes across State boundaries and to eliminate stricter municipal codes. The State of Wisconsin, as part of the code adoption process, still reviewed the national model code to remove or add codes specific to Wisconsin. Often this included parts of the code that certain sections of the industry did not like or agree with.

With the adoption of the 2006 edition of the IBC, came the requirement to provide automatic fire sprinklers within multi-family structures with three or more units. In November 2008, the Wisconsin Builders Association filed a lawsuit with the Wisconsin



continued from page 58

Court of Appeals against the State of Wisconsin Department of Commerce (the administrative agency where the building code was created and enforced) questioning the conflict between the state statute and the administrative code, stating that the statute plainly restricts the Department's authority to require sprinkler systems in dwellings with units or square footage no smaller than that provided in the statute.

The court issued its opinion on December 23, 2008 affirming that the statute does not restrict the authority the Department has under other statutory provisions to promulgate rules requiring fire protection devices in multi-family dwellings as specified in the statute.

2011 Act 21 was enacted in May, 2011 with an effective date of June 7, 2011. This act significantly altered how state agencies promulgate administrative rules. The modification was thought to prevent any conflict between state statute and administrative rules, though it did not answer the question of existing conflicts caused by this Act, nor did it remove an agency's statutory ability to promulgate rules. This was addressed as part of the Appeals Court decision in 2008 that the administrative rule was not in conflict with the statute.

Attorney General Opinion

In 2016, during the code revision process, the issue of conflicting language was brought up by the Department and language was proposed to correct the conflict by changing the Administrative Code. The Commercial Building Code Advisory Committee was against the proposed language, but failure to have a quorum prevented them from changing the proposed language. The code revision process held a public hearing. At the hearing, the fire service and International Code Council came out against any proposed language that removed fire sprinkler requirements. Most cited that the code had been in existence for years.

The Wisconsin Builders Association and Wisconsin Realtors Association sent a letter to the Department asking for a determination on the conflict and the enforcement of the administrative code. The Secretary of the Department sent this request to Attorney General Brad Schimel asking for an opinion on this request. In July 2017, one month after this request, the Department issued an emergency rule that they would not enforce the multi-family fire sprinkler requirements in structures with 20 or fewer units and that they would design and construct the building according to State statute requirements. The issue was that the adopted model code assumes that structures with three or more units are protected with fire sprinklers and the previous codes editions that listed trade-offs, if protected with fire sprinklers, were not provided. The Department stated that the building still needed to comply with all of the adopted sections of the IBC. This statement and the emergency rule were in conflict since the code required fire sprinklers.

Attorney General Schimel completed his review and issued his opinion in December 2016, stating that the sprinkler requirement was more restrictive and that it could not be enforced because of the conflict with State statutes under Act 21. This ruling noted that the Department could not enforce the administrative code

sprinkler requirement even though it was in place before Act 21 was passed. He further noted that it would be up to Wisconsin's policymakers to resolve the issues raised by the previous administrative rules enacted prior to Act 21. This decision would not affect just the building code but would affect all administrative codes. It was noted by many that many administrative codes existed that conflict with the statutes but were still being enforced. No legislation has been put forth by Wisconsin policymakers to clear up the issue.

As a result of this ruling, the Department issued another emergency ruling to address the issues identified earlier about trade-offs that needed to be in place because of the elimination of the fire sprinkler requirement. They identified 15 items that would need to be considered because of this elimination. This included height and area limitations, fire resistance of incidental accessory occupancies located within units, reduction of wall openings, increased draft stopping and fire-resistant separations, reduced egress travel, and balcony construction types. The ruling further stated that the list was not exhaustive, and it was the responsibility of the owner, designer and supervising professionals to ensure compliance with the applicable Wisconsin Statute, Wisconsin Administrative Code, and International Building Code.

AG Opinion Reversed

This issue had not disappeared when AG Schimel's opinion was released because there were many arguments that this was not properly reviewed and that it conflicted with the previous Appeals Court ruling about the conflict between administrative code and statute. With the change in administrations due to the 2018 elections, past decisions were reviewed. Attorney General Josh Kaul reviewed this decision at the request of the Governor in August 2019 and delivered his opinion on October 27, 2020. The request was not directed at the sprinkler requirement, rather it questioned the enforcement of Act 21 applied to previous administrative codes. This decision reversed the previous opinion released by AG Schimel. It found that the statutes allowed agencies to promulgate administrative codes and that the legislature should have made changes to this statute provision. Further, the opinion stated that Act 21 did not alter the enforceability of standards promulgated before the Act's effective date.

This opinion led the Department to review the effect that it had on the previous emergency rule as it related to the fire sprinkler requirement. On February 26, 2021 the Department released a memo informing all involved parties that as of April 19, 2021 the sprinkler requirement would be enforced, and previous rulings would be removed. Instructions were posted to the website and sent to all interested parties.

The Department noted that in 2020 there were 530 plans that would be subject to enforcement of this code provision submitted to the department for approval. Of those, only 79 did not include fire sprinkler systems.

While the State is anticipating potential litigation as a result of this opinion, the past court cases may deter the attempt to change the fire sprinkler requirement. •

Is It Time For Exposure Sprinkler Protection?

by Thomas G. Daly, MSc. CSP

Based on Verisk's 2019 Wildfire Risk Analysis, 4.5 million U.S. structures were identified at 'high' or 'extreme' risk of wildfire, with more than two million in California alone.

The impact of wildfires on structures is detailed in the Insurance Information Institutes study at <https://www.iii.org/fact-statistic/facts-statistics-wildfires>.

Risk turned to reality in October 2017 when the 'Tubbs' wildfire in Sonoma, Napa and Lake counties in California destroyed 5,643 structures, half of which were homes, according to CAL FIRE.

The following year two California wildfires (Carr fire, July 23, 2018 and Mendocino Complex fire, July 27, 2018), collectively,

to this wildfire.

At present neither the International Fire Code (IFC), International Wildland Interface Code (IWUIC) nor NFPA 13 Standard for the Installation of Sprinkler Systems require exposure sprinklers for new construction, regardless of the type of construction nor location within a wildfire hazard zone, although NFPA 13 (2016) provides design requirements if exposure protection is utilized.

The 2021 IBC, see Sec. 903.3.1.2.1, requires exposure sprinklers and provides related design guidance only for balconies and decks for Type V construction sleeping and dwelling units [Group R], but not for other occupancy types.



destroyed 329 commercial structures and 8,900 homes.

In November 2018, the Camp fire in Butte County California, the deadliest and most destructive in California history, killed 85 residents and destroyed 18,804 structures with the towns of Paradise and Concow completely destroyed.

In October 2019, the Kincadee wildfire in Sonoma County, California destroyed another 120 structures. Included in the Tubbs fire losses were fully sprinklered (internal) hotels of Type V construction located in a 'high wildfire hazard zone' (Santa Rosa) with no sprinkler system impairments, lost due to the exposure

NFPA 13 (2016), see Sections 7.7; 8.3.4.3 & 11.3.2, provides sufficient guidance on the design parameters for exposure protection sprinklers.

Exposure sprinklers will mitigate the effect of exposure fires on buildings so equipped. Extended coverage ordinary hazard (ECOH) closely-spaced sidewall exposure sprinklers will throw up to 24ft. horizontally, see for example TYCO Model SW-24, see data sheet at <https://www.tyco-fire.com/index.php?P=detailprod&S=2300>, providing an effective water curtain at the building perimeter. •

<https://www.verisk.com/insurance/campaigns/location-fireline-state-risk-report/>
[https://en.wikipedia.org/wiki/Camp_Fire_\(2018\)](https://en.wikipedia.org/wiki/Camp_Fire_(2018))

Lessons from “George” in Jon Gordon’s *Energy Bus*

by Elizabeth Lafond Coppez

For years, I referred to my cubicle as my jail cell. I felt trapped, suppressed, unhappy and discouraged.

My direct report was in simple terms, the wrong fit for me. We shall refer to this person as s/he to conceal identity. Let’s just say, s/he despised the color yellow. It’s such a happy color – the color of vitamin C and good health, sunshine, sunflowers and happiness. S/he would demand that the graphic designers in our department change artwork and eliminate “yellow” from signage, forms or newsletters.

When I think yellow, I see a big bowl of fresh, zesty lemons. So, let’s call this person “Lemon,” because although Lemon was sometimes sweet, s/he was mostly sour.

When Lemon interviewed for this job of managing a team of writers, s/he presented a much different person. At the conclusion of the meeting, though, his/her smile was that of the Cheshire Cat from “Alison Wonderland.” It’s haunted me for years.

On Lemon’s first day, s/he placed a large bumper-sticker-like-magnet for all to see in his/her large cubicle office. It said, “STOP! NO INTERRUPTIONS.”

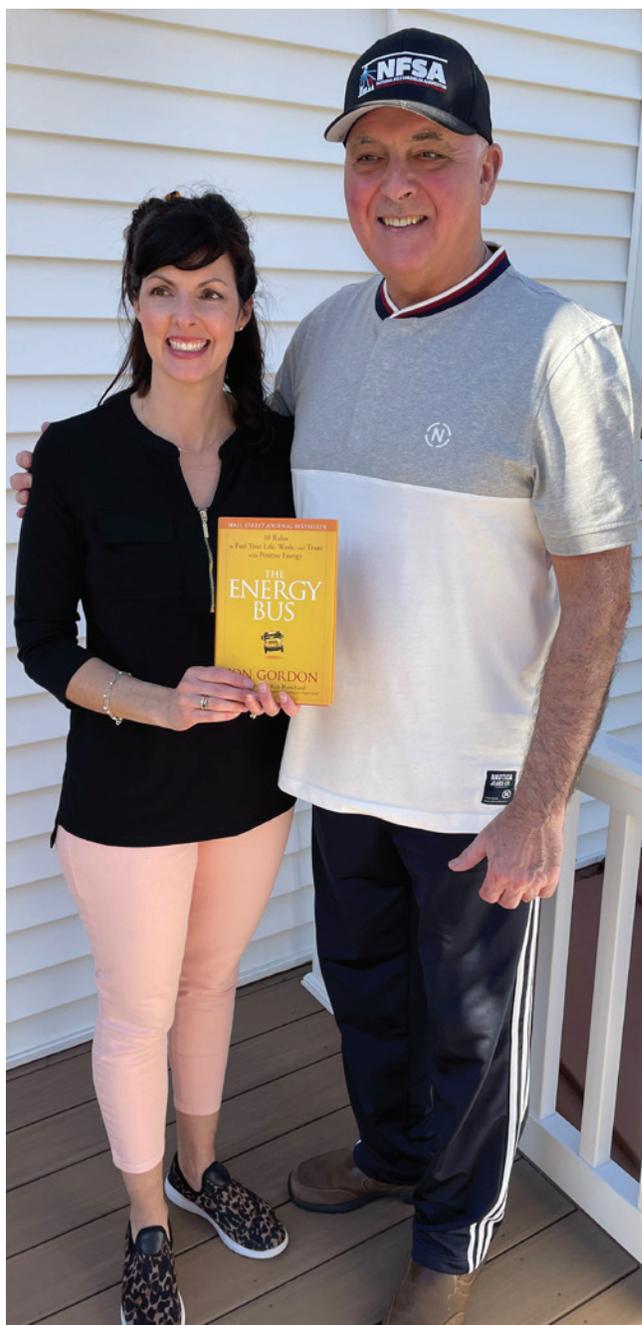
From that moment on, I experienced so many ups and downs, feeling accepted, and then rejected. I went from being the most engaged, loyal employee, to the one who couldn’t wait for Friday afternoon. Every Sunday night, I would cry about Monday morning’s unpleasant, inevitable arrival.

I started to produce just enough work to get by. I cared less about my appearance. How soon until lunch?

I was trapped in a bad relationship – Lemon’s manipulations and actions assaulted my will to excel. Shame on me for allowing one dreadful person among a team of fantastic, talented friends to allow me to plunge into despair.

It took starting a family, a new job, and many years for me to believe in myself again. Yes, I do have a talent for weaving words together, and it’s okay to call myself a writer.

Recently, my dad, former NFSA manager of the New England region, Dave LaFond, gave me his copy of *Energy Bus* by Jon Gordon. It was presented to him by Shane Ray, President, and Vickie Pritchett, Executive Officer. As many here know, my dad is an “energy bus,” always giving 110 percent to his work that is driven by his life-long passion for the fire service, and unconditionally supported by my mom during their nearly 45 years as a married couple.



continued on page 62

continued from page 61

Only after a few pages did I wish I saw this book many moons ago. I WAS GEORGE.

Let me explain.

We meet George in the middle of a stressful situation. It's Monday morning. His car has a flat tire, he never got his spare tire fixed, and he asks his wife for the other family vehicle. She tells him she "can't do her job" without her vehicle, with a full day of errands and appointments for her and their two kids. The kids want his love and affection, and he's grumbling about how it's not the weekend, to leave him alone and he may not have a job anymore if he misses his important meeting.

His only option is to take public transportation. He meets Joy, the bus driver, and she changes his life.

Joy knows George right away. She calls him a "Dimmer." She feels the energy surrounding him. "Lifeless," she says. Referring to "Dimmers," she says they have "no kick in their step. Like a light had been turned off inside them. They walk around like zombies trying to get through the day. No purpose, no spirit, no energy."

Because I did not feel valued enough on my team, I too had "no purpose, no spirit, no energy."

George learns he's without a car for two weeks, which means he has more time to ride the bus. Joy is thrilled and promises to teach him "The 10 rules for the ride of your life." They are:

RULE #1: You're the driver of your bus.

RULE #2: Desire, vision, and focus move your bus in the right direction.

RULE #3: Fuel your ride with positive energy.

RULE #4: Invite people on your bus and share your vision for the road ahead.

RULE #5: Don't waste your energy on those who don't get on your bus.

RULE #6: Post a sign that says 'No Energy Vampires Allowed' on your bus.

RULE #7: Enthusiasm attracts more passengers and energizes them during the ride.

RULE #8: Love your passengers.

RULE #9: Drive with purpose.

RULE #10: Have fun and enjoy the ride.

Rule #3 really spoke to me. I was filled to the brim with negativity, coursing through my veins, pumping sadness, toxicity and self-doubt into my life. But when I did experience something breathtakingly positive, it was like a shot of espresso – the jolt of happiness that I needed.

But I hung on to the negativity because I did not know how to let it go. Even after meetings with human resources to resolve issues, my voice was not heard, and I was denied closure to move on and allow positivity to prevail.

When George asked what to do with his negativity, Joy told him to "release it. You throw it out. You transform it. Where there is a negative there is always a positive. Where there is a dark cloud, there is always a sun shining behind it."

Oh, how I wish I altered my thinking during that time in my life. I truly believe my attitude would have changed for the better. It takes good self-talk, thoughts of positivity and gratefulness to make things better for yourself and the people around you. Filling your cup with positivity over and over keeps out the negative.

Perhaps Lemon had personal issues with negativity that overflowed into the people s/he was managing. Maybe Lemon and I were simply a mismatch in the workplace.

Not every day was dreadful with Lemon. But I always think back to the quote by Maya Angelou when she says, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel."

I will never forget how Lemon made me feel, but I pledge to keep positivity at the forefront and move forward with forgiveness. And as Joy says, "you have only one ride through life so give it all you got and enjoy the ride."•

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Vegas, Here We Come! (finally) Registration Goes Live June 1st!

Had enough of laying around in your pjs, watching every single Netflix series you could think of, hunkering down in your house and working from home on your kitchen table? We have! We are sooo excited for you to join us at the Cosmopolitan in Las Vegas for our North American Fire Sprinkler Expo and NFSA Board Meeting in October!

The Cosmopolitan

The allure of the Cosmopolitan after a year of social distancing is just too hard to resist! Rest assured that we will be adhering to all safety protocols to make your experience safe, as well as memorable. If you are not familiar with the mystique and glamour of this first-class property, allow us to take you on a tour! You can't beat this luxury resort situated in the heart of the Vegas Strip!

The Cosmopolitan is truly unique among the many properties on the Strip. The resort offers residential-styled living spaces with private terraces and breathtaking views of the Las Vegas skyline. Get your cameras ready! The resort features a one-of-a-kind restaurant collection featuring world-class chefs. Stylish design and art will captivate your cultural sensibilities, and you just can't

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beat the vibrant nightlife scene! Combine it all with an eclectic mix of hand-selected boutiques, an unrivaled Pool District, a newly renovated casino and the serenity of a first-class spa to redefine your luxury resort experience.

The Cosmopolitan boasts 26 dining options. Whether you're looking for a casual spot to enjoy lunch or a nightlife-infused dinner experience, the Restaurant Collection at The Cosmopolitan of Las Vegas features an array of unique culinary destinations from

continued on page 64



continued from page 63

around the world. Everything from authentic Italian cuisine at Scarpetta, to a Nashville-based, family-owned and operated Hattie B's Hot Chicken await!

The casino offers the latest in technology paired with the familiar games you love. Slots and video poker take on an exhilarating new meaning and give you more promise of a thrilling, life-changing experience, while your favorite classic Las Vegas table games take on a touch of modern luxury. Adding to the excitement, you can look through the floor-to-ceiling glass walls and enjoy views of the Las Vegas Strip while you try your luck.

Out and About

Since the Cosmopolitan is at the heart of the Strip, it makes for easy access to other properties. While some are withing walking distance, others are easily accessed by use of the tram and monorail systems that run up and down the Strip. Insider tip: Talk a five-minute walk to see the dancing waters at the Bellagio at night!

Hoover Dam: If you haven't witnessed the majesty of the Hoover Dam, don't miss the opportunity! Excursions are readily available, and you'll marvel at this man-made wonder of engineering. The dam was constructed between 1931 and 1936 during the Great Depression and was dedicated on September 30, 1935, by President Franklin D. Roosevelt. Insider tip: Enjoy the spectacular views of Hoover Dam and Black Canyon from 890 feet above the Colorado River on the Hoover Dam Bypass Bridge walkway. The bridge is the world's tallest concrete arch span.

Fremont Street: If you're a lover of neon and the Vegas of old, this is the place for you! Go at night to get the full effect of the neon signs! You won't know where to look first! Zipliners fly

above your head as you walk down this fabled street. Insider tip: Outside Binion's and Four Queens, take your turn on free spin slot machines and you could end up with tons of free play or other perks.

While we could go on and on about the thrills and wonders of Las Vegas, we would most like to let you know how we can't wait to be together again! It's been a very long time since NFSA staff have been together, and it seems even longer since we've been able to be with our members in person! We have a lot of catching up to do! Clear your calendars for October 5-7 and make your plans. Watch the NFSA website for when room block reservations go live and lock yours in as quickly as possible. We're sure to reach capacity quickly. We're gonna rock #fastestwateronthevegastrip! See you in Vegas!

From the Cosmopolitan

We are committed to offering an environment that aligns with expert protocols for working to defeat COVID-19. Consisting of in-house and outside experts in food and water safety, hygiene and infection prevention, and hotel operations, our Marriott Cleanliness Council is redefining our cleaning and safety standards. Starting with our public spaces and high-traffic areas, Marriott is going above and beyond our normal protocols. We are cleaning surfaces with increased frequency, dedicated staff, and recommended cleaning agents. Marriott has elevated our rigorous protocols to thoroughly clean all surfaces with hospital-grade disinfectants. We will be placing disinfectant wipes in rooms. Hand sanitizing stations are at hotel entrances, at our front desks, our elevator banks, and meeting spaces. Signage in public spaces will remind Marriott guests to maintain social distancing. •

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- UL Listed model MLUGSS Fireloop available in all 316 stainless steel construction.

Use with **Seismic Breakaway Hanger** to ensure total seismic protection

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Jeff Dunkel, PE joins Team NFSA



NFSA is pleased to announce that **Jeff Dunkel, PE** has joined the team as a fire protection engineer. This position is part of the Technical Services Team and reports to Michael Joanis, PE. Jeff will be responsible for assisting our existing departments with the delivery of technical and member services including engineering, codes & standards, and training.

Jeff is a graduate of Oklahoma State University with a B.S. Degree in Fire Protection and Safety Engineering Technology and licensed fire protection professional engineer. Prior to accepting this position, he served our industry as a fire protection consulting engineer for thirteen years. Jeff resides in the Kansas City area with his wife and three sons.

“Jeff has the education, experience, and skills the NFSA desired to add to our technical services team to provide our members with additional fire protection engineering services,” explains Mike Joanis. “Our Board of Directors, the Executive and Finance Committee, and our Chair of the Board, supported this addition to staff as part of the 2021 Operations Plan.”

We are confident that Jeff will be an excellent addition and strong asset to the NFSA team. He will help us achieve our vision of “A Stronger Industry, A Safer World” and our mission of “saving lives and protecting property for fire through the widespread acceptance of the fire sprinkler concept”. Jeff can be reached at dunkel@nfsa.org. Please join us in welcoming Jeff to Team NFSA.



NFSA Annual Seminar & North American Fire Sprinkler Expo Mark Your Calendars!

Registration will open for our *2021 North American Fire Sprinkler Expo* on June 1, 2021.

The event will take place October 5-7, 2021 at the Cosmopolitan in Las Vegas, NV. We are very excited about being together in person, and happy that our NFSA Board Meeting will occur on Friday, October 8th.

More information will be shared as its confirmed. We hope you'll join us and be part of #fastestwateronthevegastrip!

Vendor Tabletops for North American Fire Sprinkler Expo Reserve Your Tabletop Now—they're bound to sell out quickly! As of this writing, we are finalizing the details, but here's an

overview: 10 x 20 booth size, included electric, 2 tables, 4 chairs and waste basket. We will be able to socially distance, but all be together. Top Tech will be happening in the round as will lunch service each day! It will be the perfect environment for NFSA members to network in a safe environment, and we can't wait! Opening reception will also be in this space!

Member pricing is \$3,500 per 10 x 20, with non-member price at \$7,000. NFSA Member Platinum Sponsors receive \$500 off the cost of the space!

Call for Presenters!

Are you interested in presenting at the North American Fire Expo 2021? We are looking for speakers for our Technical Sessions. Do you have a presentation on new topics such as new technology in fire sprinklers, how to be a great leader, employee management, updates to codes or standards? Apply to be a speaker! Speakers will be announced by May 1, 2021! All presentations must be submitted by May 28, 2021.

You can submit your presentation here: <https://nfsa.org/annual-seminar/>



NFSA Top Tech Competition 2021

Do you think you have what it takes to be crowned the best Fire Sprinkler Layout Technician in the land? Then come compete in the National Fire Sprinkler Association's Top Tech Competition against the industry elite!

- The 2021 competition will take place during the NFSA's Annual Seminar and North American Fire Sprinkler Expo® which is scheduled for October 5-7, 2021 at The Cosmopolitan in Las Vegas.
- Participants will face off in an elimination tournament using a game show format, earning points for answering questions correctly and losing points for incorrect responses. The tournament continues until there is only the Top Tech left standing. They will be crowned “Top Tech for 2021” and will win the admiration of peers and recognition as the best Fire Sprinkler Layout Technician in the country.
- The qualification process begins with an online examination. Questions are taken from relevant standards. Registration to qualify now open.

Please only register if you are available and willing to attend the NFSA Annual Seminar and Exhibit in Las Vegas on October 5-7, 2021.

Visit <https://nfsa.org/toptech/> for more information. •

Reliable Automatic Sprinkler Co., Inc. Announces New Personnel

Reliable Automatic Sprinkler Co., Inc. is pleased to announce the following promotions and hires:

Joe Ramos has been promoted to Regional Sales Representative covering Southern California. Mr. Ramos is reporting to Regional Sales Manager, Clint Williamson. Joe brings 22 years of sales and distribution experience within the fire sprinkler industry, the last four with Reliable. Born and raised in Los Angeles, California, Mr. Ramos is bilingual in Spanish and English.

Justin Sampaga-Erice has been promoted to Regional Sales Representative covering Minnesota, Missouri, and Kansas. Mr. Sampaga-Erice is reporting to Regional Sales Manager, Shawn Timm. Justin grew up in the sprinkler industry with both father and grandfather working as foremen in contracting. Mr. Sampaga-Erice brings experience in contracting and for the past eight years has held both warehouse and inside sales positions at Reliable.

Stephanie Assouline joins Reliable as Regional Sales Manager, Eastern Canada. Supporting customers in Quebec, Ontario, and the Maritimes, Ms. Assouline is reporting to Sales Director Todd Bresnahan. Stephanie brings over 20 years in sales and marketing to this position including eight in the fire protection industry.

Bret Frangos joins Reliable as a Regional Sales Representative covering Ohio, Michigan, and Indiana. Bret is reporting to Regional Sales Manager, Dave Rosso. Mr. Frangos brings 18 years of professional sales experience to his new position at Reliable.

Angelo Kapetanakos joins Reliable as a Regional Sales Representative covering all of New England. Mr. Kapetanakos is reporting to Regional Sales Manager, Mike Cauley. Angelo brings 20 years of sales experience in the construction and finance industries. Angelo is based out of Watertown, Massachusetts.

“We are excited to fill these roles with such diverse and talented individuals. I’m confident they will deliver the level of customer service and technical expertise you expect from Reliable,” commented Reliable Vice President of Sales, Americas, Kevin T. Fee, Jr. “We are thrilled to bolster our outside sales organization and expand the Reliable family.”

For additional information and Reliable news visit Reliablesprinkler.com/news.



Joe Ramos
Regional Sales Representative



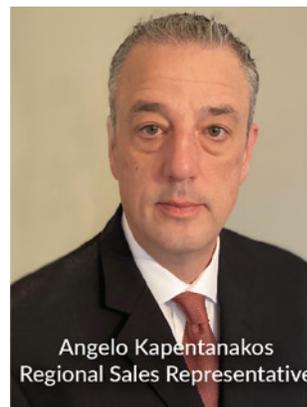
Justin Sampaga-Erice
Regional Sales Representative



Stephanie Assouline
Eastern Canada Sales Manager



Bret Frangos
Regional Sales Representative



Angelo Kapetanakos
Regional Sales Representative

Potter Announces New Senior VP, Operations & Supply Chain



Potter Electric Signal Company, LLC announces the hiring of **Tim Baechle** to the position of Senior Vice President of Operations and Supply Chain. Baechle is joining Potter after previously serving as Vice President of Fulfillment, Inventory, and Logistics at Clarios in Milwaukee, Wisconsin. Prior to his time at Clarios, Tim had a successful career with General Electric in the operations, supply chain and continuous improvement functions. He will be taking over for the current Executive Vice President of Global Operations & Supply Chain, Jon Veldman, who will be moving into a part-time role with Potter later in the spring.

Gerry Connolly, Chief Executive Officer at Potter, said, “Jon has done an exceptional job updating our operations and supply chain functions. Under his leadership, our operations and processes have improved dramatically, and we are grateful for his time and dedication over these past three years. I am very excited that we have hired an excellent successor for him in Tim Baechle, whose operations expertise and focus on manufacturing excellence will be a great asset to Potter in its continued growth.”

Florida Fire Sprinkler Association is pleased to announce the 2021 Champion of Industry — Tommy Demopoulos



FFSA Champion of the Industry is the highest award given by the Florida Fire Sprinkler Association. This year's recipient was chosen because of his tireless work to educate his colleagues, as well as the public, on fire safety and specifically how fire sprinklers can make a difference.

Tommy Demopoulos is the Assistant Fire Marshal for Tamarac Fire and takes every opportunity presented to him to share the benefits of installing fire sprinklers.

Tommy is passionate about fire sprinklers and has been successful in gaining voluntary compliance in new residential applications. The city staff and submitting developers know that Tommy is going to request fire sprinklers during the discussion phase of any development.

Tommy is the President for the Fire Inspectors Association of Broward County, where he was awarded the Fire Inspector of the Year in 2014 and the SE Regional Director for FFMIA, where he was awarded Fire Inspector of the Year in 2018.

He is a true code nerd at heart and enjoys teaching fire code to others.

Congratulations Tommy and thank you for your passion and your desire to educate others that fire sprinklers save lives.

Florida Area Interest Meetings

Area Interest Meetings (AIMs) are a great way to get together, network and learn. We have missed having them during COVID-19 and have started thinking of creative ways for us to get together. FFSA has started AIMs through small gatherings (no more than



15) while broadcasting live to the virtual world. We had our first hybrid AIM in Clermont on January 21. Pete Schwab from Wayne Automatic Fire Sprinklers and George Stanley from Wiginton Fire Systems presented *The Other "W"*, *Water Supply Issues*. We had about 18 in the class while broadcasting to 50 + across the nation. Then on January 27th, Mark Inman, COO of American Backflow Products, presented *Backflow Re-*



pair, Keep it Simple in the same format, we had about 18 in class with 40 + joining us from across the nation. Both these classes were great! Having a live audience gives the instructor a baseline to feed off of and makes it more entertaining for the virtual students. The virtual audience was encouraged to participate with questions and comments along with those in the classroom. It was a perfect way to get the most benefit from our current COVID restrictions. More of these classes are planned. They are FREE, 1.0 CEU, and if you cannot come in person it gives you the virtual option. Stay tuned more to come.

NFSA Connecticut Chapter and Local 669 Come to Aid of Fire-Ravaged Paul Newman's Children's Camp

NFSA's Connecticut Chapter did not waste any time in coming to the aid of the state's very own iconic, long-established haven for seriously ill children.

The Hole in the Wall Gang Camp was founded in 1988 by Paul Newman to give every child – no matter their illness – the chance to "raise a little hell." Through a variety of year-round programs offered onsite, in hospitals and clinics, and right in camper homes

continued on page 68

CHAPTERS IN ACTION

continued from page 67

and communities, the camp serves more than 20,000 seriously ill children and family members each year.

Chapter President, John Abbate working with the Chapter Officers, Board of Directors and UA Local 669, contacted the Hole in the Wall organization and pledged a commitment to provide an automatic fire sprinkler system for their new buildings that were being rebuilt.



Photo by Morrowlong. Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License

This is the response from the Hole in the Wall facilities personnel:

“On behalf of The Hole in the Wall Gang Camp, I wish to express my deepest gratitude for your generous offer to install a complete fire sprinkler system for our rebuild in response to the devastating fire Camp endured on February 12, 2021.

We are so grateful for the outpouring of love and support from the community, such as the CT Chapter of the National Fire Sprinkler Association and Sprinklerfitters Local Union 669, as we prepare to ‘rebuild stronger and continue to bring Paul Newman’s dream of ‘a different kind of healing’ to more children with serious illnesses and their families.’”

To find out more and donate, visit <https://www.holeinthewallgang.org/>.

Northwest Region Chapters Gearing Up for Busy Season

The Puget Sound and Columbia-Willamette Chapters are gearing up for an in-person schedule of meetings once COVID restrictions are lifted in Washington and Oregon. Watch your inbox for details and links to register on the NFSA website. If you have suggestions for speakers, please contact your Regional Manager or Chapter board members.

This spring, the Northwest Region and NFSA Training teamed up with the Oregon Fire Marshal Association to offer a selection

of classes to OFMA members. The partnership allowed Oregon fire marshals to take online classes on their own timeline.

The Fire Sprinkler Advisory Board of Puget Sound media campaign to promote the message that “fire sprinklers protect what fire will destroy” continued this spring. The message was highlighted on a digital billboard on I-5 and numerous stationary billboards throughout the Puget Sound region. Readers of the online and print version of the Seattle Times and Seattle Met magazine learned about the importance of including fire sprinklers when making decisions about their residences. Online ads highlighted company logos of contractor member who contribute to the Industry Promotion fund.

The Fire Sprinkler Advisory Board and NFSA were also a “virtual sponsor” for the Washington Association of Building Officials Spring Education Institute. In addition to an on-line sponsor page listing our resources, conference attendees were able to ask fire sprinkler-related questions during “live chat” hours.

The Fire Sprinkler Advisory Board and Fire Sprinkler Local 699 are again co-sponsoring the Sprinklerman Shootout in August. Signatory contractors should watch their in-boxes for more information. •

45,000 sq. feet including tyco Fire Protection Products in Rhode Island

48,000 sq. feet in Arkansas

25,000 sq. feet in Southern California

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SPRINKLERING OF NEWS

■ AGF Introduces Flood Eliminator for Auxiliary Drains

AGF Manufacturing introduces the Model 5900 Flood Eliminator, an attachment that prevents broken auxiliary drains from flooding a facility. The Model 5900 is designed to allow condensate water to collect normally in a standard drum drip. If presented with the pressurized flow that would result from a failed drum drip, it automatically trips to cut off that flow, eliminating the flooding and damage that would result from the system's failure. The Flood Eliminator can be pre-assembled to AGF's COLLECTANDRAIN auxiliary drains or retrofitted to existing auxiliary drains.

The patent pending Model 5900 is designed to be installed above the top valve of a typical auxiliary drain assembly and is housed in a 3.5" brass body with a 1" female NPT inlet and a 1" male NPT outlet. If the drain below a Flood Eliminator fails, the dry valve will open, resulting in a pressurized water entering the system flowing towards the break. When this high velocity pressurized flow reaches the specially engineered internal mechanism of the Flood Eliminator, it will shut down the flow and stop the flooding.

The Flood Eliminator does not require power and will automatically reset when the system is reset. It is compatible with dry and pre-action systems using standard compressed air or nitrogen. To learn more about the Model 5900 Flood Eliminator, the COLLECTANDRAIN line, or to find a distributor, visit www.agfmfg.com.



■ Reliable Automatic Sprinkler Co., Inc. introduces Flat Plate Window Protection Sprinklers

Reliable Automatic Sprinkler Co., Inc. announced the introduction of the Model WP56C Flat Plate Concealed Window Protection Sprinkler. WP Series Sprinklers are used with fixed glazed assemblies to create a cULus Listed alternative to a fire-rated wall. The Model WP56C is a 5.6K (80 metric) Fast Response Specific Application Concealed Pendant Vertical Sidewall Sprinkler that is UL Listed to provide complete wetting of various glass surfaces. It has also been evaluated by ICC-ES for consistency with the International Building Code® and select local



WP56C with cover

building codes in ESR-4700.

"This is a game-changing product for Reliable," commented Steven Wolin, Reliable's Vice President of Product Technology. "We were able to achieve an industry-leading Listing of 10 ft (3.0 m) maximum spacing for a flat plate concealed window sprinkler to go along with the industry-leading 12 ft (3.7 m) spacing for our existing Model WP56 and WP56L pendent vertical sidewall window sprinklers. That means fewer drops, fewer sprinklers, and less time installing. Combined with the smooth-edged durable flat cover plate, the Model WP56C Sprinkler provides an installation that integrates attractively with architectural glazing."

The Model WP56C Sprinkler employs a rugged fusible link operating element in both ordinary and intermediate temperature ratings. Cover plates

for the Model WP56C are available in standard finishes of white and chrome as well as 8 specialty finishes. Plates may also be custom paint matched by Reliable for the most architecturally sensitive locations. For more information on the full family of Reliable WP Specific Application Window Sprinklers, refer to Bulletin 181 or visit www.reliablesprinkler.com/wp.



WP56C, deflector extended

■ Viking Group, Inc. Forms New Viking Integrated Safety Division

Viking Group, Inc. has announced the creation of Viking Integrated Safety (VIS), an organization that will leverage the broad range of Minimax Viking products to provide fully-integrated, pre-engineered, and packaged fire prevention and life safety solutions for targeted applications. VIS solutions combine technologies from pull-stations, flame/smoke detectors, alarm panels, notification appliances, and extinguishment systems in seamless, dependable, and cost-effective kits.

To lead the new organization, Viking has appointed Mr. Mike Crovo as General Manager of VIS, reporting to Viking Group Chief Operating Officer (COO).

"We're excited to have Mike lead the new VIS," commented Jeremy Morton, Viking Group COO. "Mike understands all the perspectives having worked for leading manufacturing and consulting firms in a variety of sales, applications, managerial, and executive positions. He's the right person to make VIS a great success," added Morton.

VIS will be a division of Viking SupplyNet, joining other Viking Group, Inc. companies, including The Viking Corporation, Viking

continued on page 70

SPRINKLERING

SPRINKLERING OF NEWS

continued from page 69

Fabrication Services, and Viking Plastics.

For more information on Viking Integrated Safety solutions, visit Safety.Supplynet.com.

■ Low Profile Storz Adapters from Harrington, Inc.

Are you looking for low profile Storz adapters providing more compact wall connections? Harrington, Inc. Storz X female thread adapters can be as narrow as 2" plus cap. Storz heads are "forged"



not cast, Made in USA aluminum and anodized to military specifications. The remaining components are also made in USA and anodized for durability and long life.

■ Core & Main Signs Definitive Agreement to Acquire Triple T Pipe & Supply

Core & Main LP announced that it has entered into a definitive agreement to acquire substantially all of the assets of Triple T Pipe & Supply, LLC, located in Lubbock, Texas. Financial terms were not disclosed.

"We're excited to expand our waterworks presence in West Texas by bringing the team from Triple T into Core & Main," said Jack Schaller, president of Core & Main Waterworks. "We admire their commitment to providing a high level of service to their loyal customers. I look forward to welcoming them into the Core & Main family after we close the transaction."

Core & Main currently serves West Texas from its locations in El Paso and San Angelo, Texas.

Tim Trevino, majority owner of Triple T Pipe & Supply, said, "I'm proud of the success and all our team has accomplished at Triple T. We believe the Core & Main team shares our commitment to valuing its people and customers. Joining a larger organization offers us the opportunity to grow faster and provide our customers additional products and service offerings. We are eager to begin our next chapter with Core & Main."

Founded in 2014, Triple T Pipe & Supply is one of Lubbock's top waterworks distributors, providing outstanding customer

service for West Texas and New Mexico. Triple T provides pipe, valves, hydrants, fittings, and more to contractors for any size job.

Upon closing, this acquisition will mark the 12th since Core & Main became an independent company in 2017.

■ New TYCO® RM-2 Riser Manifold

Johnson Controls introduces the Tyco RM-2 Riser Manifold with Model TD-2 Test and Drain Valve. The UL and UL-C Listed, FM Approved system simplifies installation, testing and operation for fire protection contractors by providing all the necessary components in a pre-assembled compact unit, including a unique linear shut-off function offering the ultimate sealing design. The RM-2 Riser Manifold is intended for use with wet pipe sprinkler systems and is ideal for commercial buildings with a small footprint, including new construction and retrofit.

The included Tyco Model TD-2 Test and Drain Valve with adjustable pressure relief simplifies operations for contractors and their customers such as waterflow alarm device testing and feed main draining. The linear shut-off function reduces leakage over time due to debris in media. Thanks to its plunger-style valve, the durable TD-2 stands up to the wear and tear that typically leads to leaks.

The integrated pressure relief valve automatically bleeds system pressure exceeding 175 psi (12,1 bar) to the manifold drain to maintain proper system pressure. The TD-2 Test and Drain Valve also features test orifices equivalent to that of a 2.8K and 4.2K orifice sprinkler and is available in both 1.25-inch and 2-inch sizes.

The RM-2 Riser Manifold features all the necessary alarms, pressure gauges and check valve equipment to fully comply with NFPA 13 standards. The manifold may be installed horizontally or vertically for both single sprinkler rises and floor control in high rises. Additionally, all components can be rotated at the coupling joints to customize the product orientation for optimal installation.

To learn more about the Tyco RM-2 Riser Manifold with Model TD-2 Test and Drain Valve, go to www.tycopp.com/rm2.

■ Johnson Controls Introduces Lithium-Ion Risk Prevention Solution for Protection of Energy Storage Systems

Johnson Controls announces the launch of its Lithium-Ion Risk Prevention System. The system is engineered to provide early-warning detection of battery failure in Lithium-Ion Energy Storage Systems (ESS) and other applications using Lithium-Ion batteries such as UPS systems in data centers and manufacturing facilities. By monitoring and mitigating battery failure before it presents a fire threat, this technology provides immense safety value for the Energy Storage industry, which is rapidly growing due to global emission reduction targets in renewable power generation – particularly solar and wind.

continued from page 70

The risk behind Lithium-Ion batteries

Lithium-Ion batteries provide a cost-effective energy storage solution for wind farms, solar farms and data centers. They can also pose severe risk if battery abuse occurs due to mechanical damage, charging failures, manufacturing defects or external heat. Battery abuse can result in thermal runaway – a dangerous chemical reaction within a battery cell that quickly spreads to adjacent cells. As it spreads, these cells collectively generate heat and smoke, which can potentially cause a fire event.

To help prevent catastrophic loss of assets, it is of paramount importance that battery cell malfunction is detected and mitigated prior to events that could lead to thermal runaway. This is best achieved by actively monitoring for Lithium-Ion off-gases, which are produced shortly after cell malfunction occurs.

Fully integrated early warning solution

The Johnson Controls Lithium-Ion Risk Prevention System features monitoring and reference sensors that continuously check battery racks for the presence of Lithium-Ion off-gases. The reference sensors provide surrounding ambient air data to the controller, while the monitoring sensors within the battery racks capture data relating to the air directly adjacent to the Lithium-Ion batteries. The sensors detect Lithium-Ion off-gases in a concentration as small as one part per million (ppm) and are compatible with all Lithium-Ion chemistries.

When the sensors detect off-gas, they immediately and automatically communicate with the battery management system to shut down the affected battery stacks to help prevent thermal runaway. In applications where the off-gases can build and cannot be vented externally, an inerting system may be employed to help prevent the off-gases from igniting. Early intervention helps protect valuable assets – extending the lifetime value of energy storage systems while keeping surrounding assets intact.

The Johnson Controls Lithium-Ion Risk Prevention System can be readily integrated into existing power storage systems since it does not require any electrical or mechanical contact with battery cells. For integration with fire detection and suppression systems, it is used with AUTOPULSE, ZETTLER or FIRECLASS Detection and INERGEN® or SAPPHIRE® Inerting or Fire Suppression Systems.

For more information on the Lithium-Ion Risk Prevention System, visit tycofpp.com/lithium-ion-RPS.

TYCO® LFP® Antifreeze+ Protects Sprinkler Systems in Extreme Cold Weather

Tyco LFP® Antifreeze+ from Johnson Controls delivers the first UL Listed antifreeze solution that performs at temperatures as low as minus 32°C (minus 25°F). The pre-mixed solution protects against freeze damage failure and ensures flow in wet fire sprinkler systems.

LFP® Antifreeze+ meets NFPA requirements (13, 13R, 13D and 25) and is included in the FBC™ System Compatible Program.

This newly listed product offers added assurance for residential and commercial fire sprinkler contractors, fire marshals, and building owners and managers by providing industry-leading wet-pipe protection in extreme cold-weather conditions. LFP® Antifreeze+ is designed to perform in harsh climates to the lowest temperature threshold available on the market today. This includes the coldest North American

regions like Canada, where the average winter temperature is minus 15°C (5°F), with much lower regional temperatures possible.

Johnson Controls developed this proprietary chemical formula using its depth of experience and knowledge in special hazards and specialty chemicals. LFP® Antifreeze+ is compatible with steel and CPVC piping components and can support large volumes up to 500 gallons. This ground-breaking solution is nontoxic, with the FDA classifying it as “generally recognized as safe” (GRAS) for disposal in septic systems and public sewer systems.

For more information on LFP® Antifreeze+, visit <http://www.tycofpp.com/lfp> or contact your local Johnson Controls Fire Suppression Products representative.



Johnson Controls launches 700 Series microprocessor-based conventional fire detectors

Johnson Controls announces the new 700 Series Conventional Fire Detectors, the company’s first microprocessor-based conventional fire detectors that precisely monitor and respond to building fire conditions. The inclusion of a microprocessor across the entire range means these conventional detectors offer advanced algorithms, resulting in the same detection performance and false alarm rejection as the company’s latest non-Fastlogic, Gen6 detectors.

The five fire detectors in the series (701P, 701PH, 701H, 702H, and 703H) each respond to unique parameters including smoke density, fixed temperature, and rate of rise of temperature, then notify fire detection panels to provide an alarm response for the affected zones. The 700 Series Detectors offer a complete fire detection solution - including drift compensation - ideal for small commercial buildings such as retail outlets and business campuses.

Smoke detection and drift compensation

The 701P smoke detector works by sensing the optical scatter from smoke particles generated in a fire. This is suitable for applications

continued on page 72

SPRINKLERING

continued from page 71

such as electrical services areas where cable overheating may occur.

The 701PH smoke and heat detector operates as a standard optical detector under normal ambient conditions. However, when a rapid rise in temperature is detected, the sensitivity of the optical detector increases to help better identify smoke particles. The 701PH is the first conventional detector from Johnson Controls which is approved to EN54-29, a non-harmonized standard for multi-sensor detectors.

The 701P and 701PH detectors both offer drift compensation (or threshold compensation), an intelligent feature that monitors the level of dust and debris within the optical detector, then adjusts the sensor to compensate for the obstruction. This results in improved reliability over time, extended life of the detectors, and less maintenance needs.

Heat-based fire detection

The 701H is an A1R heat detector that uses both rate-of-rise and 60°C static temperature sensing, where the fixed element provides a backstop for fires in which the temperature builds up gradually.

The 702H is an A1S heat detector with a static response temperature of 60°C (EN54-5). Since it only responds at these specific temperatures, this detector is suitable for restaurant dining areas, retail facilities, and hotel rooms.

The 703H heat detector has a static response temperature of 90°C (EN54-5), which works best in areas where higher temperatures are normal such as boiler rooms and kitchens.

The Johnson Controls 700 Series Conventional Fire Detectors are EN Listed, with UL and ANZ Listed versions coming soon.

For more information on the Johnson Controls 700 Series Conventional Detectors, visit <https://www.zettlerfire.com/Products/Fire/ZettlerConventionalDetectors.asp>.

■ Potter Announces Coil Supervisory Switch

Potter Electric Signal Company, LLC announces the release of the CoilKeeper™ Supervisory Switch, which will grant users improved coil monitoring on preaction/deluge system solenoids on their fire suppression systems.



Recent changes to NFPA 13 2019 – 8.3.1.2.1 now require the coil on a releasing solenoid of pre-action systems to be monitored. The CoilKeeper is designed to observe and report on the position of a solenoid coil commonly found in most preaction/deluge sprinkler systems. When a coil is removed, the device activates a set of contacts that will send a supervisory alert to the releasing control panel, letting maintainers and facility personnel know the system is currently being worked upon.

In addition to monitoring the coil's status, the CoilKeeper also uses easy-to-understand LED lights to indicate what state the coil is currently in, whether it be normal operation, undergoing maintenance, or if there is a fault or short in the solenoid. The current circuit state is also available for local viewing, which can help prevent any accidental system releases and discharges.

Visit www.pottersignal.com for more information. •

NFSA offers a variety of training classes both in person and online training options including live virtual training classes, recorded programs, self-paced interactive or blended learning formats.

NFSA is leading the industry, with training topics such as:

- NFPA 13, 14, 20 Standard Updates
 - Sprinkler System Plan Review
 - Standpipes for Fire Protection
 - Pumps for Fire Protection
 - Inspection, Testing and Maintenance
 - Layout and Design
 - Advanced Pumps
 - Advanced Hydraulics
- And so much more!*



Don't miss NFSA's **Technical Tuesdays Live Online Training**. Tech Tuesdays are offered monthly and are FREE to members!

Check out NFSA Training at www.nfsa.org/training

REGIONAL NEWS

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

NEW ENGLAND

MAINE

Fire Sprinkler System Control Fire in Bar Harbor Laboratory

On March 10th, shortly after 9:12 p.m., the Bar Harbor Fire Department arrived at The Jackson Laboratory to investigate a fire alarm call.

Bar Harbor Fire Department Chief Matthew Bartlett said “As our crew entered the building, they radioed back saying they had found fire in the building with sprinkler flow,” which prompted a call for additional resources.

Though many fire departments were called, only about five or six responders entered the building. “Our crew had to go in and put out the fire that the sprinkler system couldn’t fully extinguish,” said Bartlett, adding that it was primarily the contents of a shelving unit that caught on fire. Around 10:30 p.m., the flames were doused and the departments cleared the scene.

All research mice and employees were safe!

Chief Bartlett said, “We got a fire alarm, the sprinkler system activated, we went down to investigate, found a little fire burning and luckily we were able to get in there and put the remaining fire out. The system worked as it was just designed to do.”

MASSACHUSETTS

Fire in Commercial Building Held in Check by Fire Sprinklers

On March 20th, firefighters were dispatched for a commercial fire alarm at an auto repair shop in Whitman, MA. Upon arrival, crews found smoke showing at the south end of the building.

Several fire sprinklers had activated, which held the fire in check until fire crews arrived. Upon entering the building through a side door, firefighters found the fire to be coming from a vehicle inside a rear bay.

Once mutual aid companies and the building owner arrived, firefighters were able to open additional overhead doors to assist with ventilation. Firefighters were then able to access the rear of the building to fully extinguish the fire. No injuries were reported.

NEW YORK

NYC Council Passes Fire Safety Legislation to Regulate Movie Sets

Film companies will have to notify the FDNY about interior alterations they make to structures and have fire safety workers on set when combustible materials or pyrotechnics are used under a pair of bills passed by the City Council in March.

The legislation, spurred by the death of firefighter Michael Davidson during the filming of Edward Norton’s “Motherless Brooklyn,” cleared the Council’s Committee on Fire and Emergency Management Council in the morning and passed the full Council on 46-0 votes in the afternoon.

One of the bills requires film companies to name “location fire safety managers” who will be responsible for making sure film crews follow city fire codes.

The other bill requires local firehouses to be informed if a structure is altered to suit the needs of a film crew. Also, movie and TV crews would have to repair any city code violations that affect a set’s safety.

NEW JERSEY

Join the NFSA New Jersey Chapter for its Annual Golf Outing!

The annual NFSA New Jersey Chapter Golf Outing is BACK! Join us on September 23rd at Beaver Brook Country Club in Annandale, New Jersey. This championship-quality public golf course is as challenging as it is beautiful and boasts one of the finest layouts in the area. All proceeds will go to the FMBA Foundation and the Phoenix Society for Burn Survivors.

Visit NJFSAB.org for more information on pricing and sponsorships available!

Save the Date for NFSA’s Area II Conference

This year’s Area II Conference will be on September 16th to 18th at the Crystal Springs Resort in Hamburg, New Jersey. Join us as

continued on page 74

REGIONAL NEWS

continued from page 73

we honor five new inductees into our Area II Hall of fame. The event will also feature numerous guest speakers who will give updates on public policy, codes, and engineering trends relevant to the fire sprinkler industry.

Crystal Springs Resort is a spectacular NJ vacation destination, acclaimed as the New York Metro area's most unique four-season resort. Located in the rolling farmland of the Garden State's picturesque northwest, Crystal Springs' world-class NJ resort is just an hour from New York City, and even closer to most northern and central NJ towns. Crystal Springs Resort offers so much to experience for the whole family!

FLORIDA

Get Ready for Hawks Cay!

Hawks Cay 2021 plans are underway. **Mark your calendars for October 24-28, 2021.** We have a great lineup of speakers that include NFSA President Shane Ray, NFPA CEO Jim Pauley, Gene Marks, Author, Economist who is featured on MSNBC, Fox Business, Sirius XM and more. This is just a sampling of the great speakers we have lined up.



Don't forget the extremely popular Fire Product Challenge featuring new obstacles, roadblocks and vendors. We hope to open early bird registration by April 1st, so watch for the big opening and register early. You will not want to miss this year's conference. 32 CEUs including mandated hours. Learn while having fun at several different challenges throughout the week. Take a bus ride to Key West and enjoy nights by the beach. *Are You Ready?*

GREAT LAKES

Indiana Code Exploratory Committee

The recently IDHS appointed Indiana Code Exploratory Committee met for their inaugural meeting on February 11th to discuss the fiscal impact costs and potential benefits of updating the IBC, IFC, IRC, NEC, IMC, IECC, Fuel Gas Code and NFPA Standards in the State of Indiana.

Indiana is currently three code cycles behind the model codes and are using the 2012 Edition of the ICC Model Codes. The seven-person committee is Chaired by Mike Popich, Indianapolis Code Official, who also sits on the Indiana Fire Prevention & Building Safety Commission. Other members include Don Carson with American Structural Point- Structural Engineer, Doug Elmore with Gene Glick Apartment Corporation/ IN Apartment Association, Deputy Chief Josh Frost with Zionsville Fire Department, Greg Furnish with Indiana Builders Association, Scott Pannicke with Ratio Architect-/AIA-Indiana, and Christina Collister with RTM, code consultant.

We are monitoring these developments closely and will continue to promote the industry best practices of adopting the most current model codes into law.

These meetings are open to the public. You can find additional information at <https://www.in.gov/dhs/boards-and-commissions/fire-prevention-and-building-safety-commission/indiana-exploratory-committee-for-code-updates/>.

ILLINOIS

Northern Illinois Fire Sprinkler Advisory Board Ad Campaign

"The First Time I Saw How A Fire Sprinkler Worked, I Was A Little Upset..."

My name is Jordan Rodriguez. As a burn survivor, I never want anyone to go through what my family has gone through. My twin brother and I were burned in a house fire when we were four years old. While the rest of the family escaped without physical harm, my brother received burns on 43% of his body; 80% of my body was burned. We had many surgeries and spent months in the hospital. There was a mental toll to the fire as well. While growing up, I was bullied and often felt left out. Our mother was devastated, and our older brother still deals with post-traumatic stress disorder.



When I was a young man, I saw a demonstration that compared a fire in a sprinklered room versus a fire in an unsprinklered room. I was upset because I realized that life would have been different for my family if our home had fire sprinklers. I was upset because I

continued from page 74

know how many homes and apartments do not have fire sprinklers. Now I am committed to being the biggest advocate I can be.”

A fire can become deadly in less than two minutes. Fire sprinklers are the only technology that can actively prevent a fire from becoming deadly and protect occupants and firefighters.

MISSOURI

Sprinkler Save at GM Plant



Hampered by extreme cold and blizzard-like conditions, Wentzville firefighters responded to two separate fires that were kept in check by a fire sprinkler system. Both fires involved filtration systems at the Wentzville GM plant. Firefighters had to ladder the snow and ice-covered building in order to access some of the roof-top mechanical equipment. Once on the roof, firefighters removed the burning filters in order to complete extinguishment. The plant employs over 4,000 people.

WISCONSIN

State of Wisconsin To Resume Enforcement Of Multi-Family Fire Sprinkler Requirement

The Department of Safety and Professional Services (DSPS) will begin enforcement of the multi-family fire sprinkler requirement for structures with 3–19 units. This is due to the current Attorney General reversing the previous AG opinion on enforcement of stricter administrative codes that may conflict with state statutes. The original opinion was issued in 2017, which stated that the existing administrative code was in conflict with a state statute and should not be enforced.

The 2020 AG opinion reversed that ruling. DSPS has rescinded the previous ruling and will now enforce the fire sprinkler requirements per the adopted 2015 International Building Code. All plans submitted before April 19, 2021 may follow the previous ruling.

It was reported that during 2020 there were 530 multi-family plan submittals with only 79 being submitted without fire sprinklers (15%). Note that plans submitted without fire sprinklers were required to add back trade-offs that were in place with fire sprinklers, per DSPS guidance. •

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 sent as attachments to emails or through a file transfer site. We cannot use images embedded within a document. 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 NFSM.

Payment

NFSM does not pay for articles; we do recognize an author with a byline and credit.

NFSM reserves the right to reject any submission at its own discretion.

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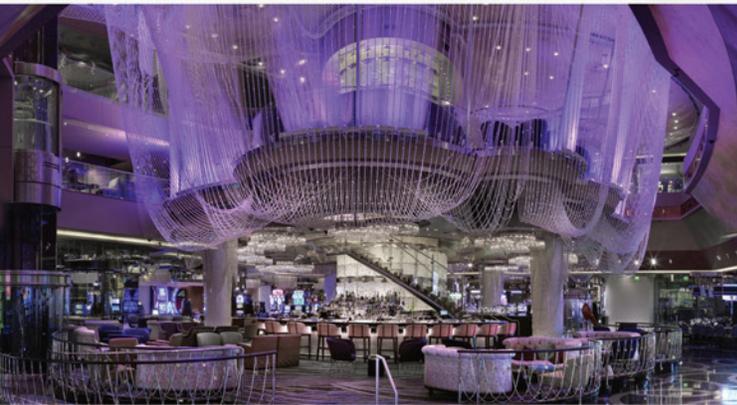


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SAVE
THE
DATE

Are You Ready for *#fastestwateronthevegasstrip?*



***Team NFSA is getting ready for you!
Registration opens June 1st!***

Tabletops are available to vendors! Each 10x20 space will include 2 tables, 4 chairs and electrical hookup. We'll be able to socially distance while networking! The vendor tables will surround our **Top Tech Competition**, which will be live on the expo floor. Lunch will be served both days in the vendor area. We're ready for the "awesome"... are you?

Check out the conference page of our website for the latest information.

For those that can't make it to Vegas, we're excited to offer a virtual experience at a great price. What a fantastic way to include team members who are not able to make the trip! Take advantage of this first-time opportunity. You asked, we listened!

See You There!

NORTH AMERICAN FIRE SPRINKLER EXPO & NFSA BOARD MEETING

LAS VEGAS, NV • OCTOBER 5-7, 2021



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